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DEVOLUTION, DEMOCRACY, AND
THE CHALLENGE OF DIVERSITY:
COMMUNITY ENERGY GOVERNANCE
IN SCOTLAND

Bregje van Veelen

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Declaration

I declare that, except where otherwise indicated, this thesis is entirely my own work. No part of this thesis has been submitted for any other degree or professional qualification.

Signature: Bregje van Veelen

Date: 31 August 2017

Abstract

This research investigates the emergence of new participatory spaces in the transition towards a low-carbon society. Specifically, it focuses on the emerging spaces and roles for community groups in renewable energy governance. The role of community groups in facilitating a low-carbon transition has received much attention in recent years, but has been insufficiently studied within the wider context of evolving state-civil society relations. This research puts forward an understanding of community energy initiatives that is neither inherently celebratory nor dismissive of community action, but argues that such initiatives should be understood based on the interactions – between practices, organisations and relations – within and external to these communities. In doing so, this research adopts an interdisciplinary approach, building on insights from both geography and political science to understand how opportunities for community participation are articulated in particular geographical and political contexts. Grounding this research in Scotland shows the unique ways in which devolution – from the UK Government to the Scottish Government, but primarily through the emerging powers for community groups in Scotland – has created a set of spatially and temporally-specific spaces and practices of intervention.

The devolution of energy governance, and the diversity of practices emerging through this process, also raises questions, however, about the democratic qualities of these new spaces and practices. This research specifically explores this issue through building on the emerging concept of energy democracy. ‘Energy democracy’ is a concept that has been adopted by a growing number of international civil society actors who regard the transition to low-carbon energy sources as an opportunity not only for technological innovation but also for wider socio-economic transformation. Invoking an image of associative democracy, those advocating for greater energy democracy consider self-governing community groups as best placed to ensure that the transition towards a low-carbon society is

one that is more inclusive, democratic and just. While energy democracy, like related concepts of energy citizenship and energy justice, aims to combine technological and social transformation, its activist roots also means it is noticeably different. This is evident in two ways. First, the current body of literature is largely uncritical and rather vague in nature. The second consequence of the activist roots of energy democracy is that it is diverse in its framing of the issue and its formulation of desired transition pathways.

As its main contribution to existing academic debate, my thesis explores and expands the conceptual foundations of ‘energy democracy’ by evaluating its connections to different political theories, and the consequences of different interpretations for energy democracy research and practice. Secondly, I seek to develop the empirical evidence base for energy democracy. The current, primarily activist, literature on energy democracy often *assumes* rather than *demonstrates* that the forms of governance it promotes are more democratic than the status quo. This PhD therefore sets out to analyse the complex and varied ways in which local communities practice energy governance in Scotland. First, I introduce a quantitatively-developed typology of community energy projects in Scotland to highlight the diverse nature of the sector. Subsequently I demonstrate through qualitative interviews with community groups how the diversity of the sector (both within and between groups) both contributes to, and challenges, the democratic claims made for and by community energy. In the final part I show that the hybridity of spaces created by, and for, community energy intermediaries reflect the interactions between policy and community-action. Through a focus on the interaction between actors at different governance levels, my research helps to improve an understanding of the creation and contestation of new spaces of intervention in the Scottish energy transition as a process that not only reflects a broader (re)structuring of state-civil society relations, but also provides an early and somewhat experimental expression of such restructuring.

Lay summary

The ways in which energy is produced, distributed and used, is changing. There has been a growing emphasis on using renewable energy sources, such as wind, water and solar in many countries around the world. In Scotland, the Scottish Government has set a target to generate all electricity from renewable sources by 2020. This growing use of renewable energy not only has the potential to reduce carbon emissions, but also who produces energy and where. Renewable energy can be produced at a smaller scale, and opens up the opportunity for actors other than private companies or the state to generate energy.

This research focuses specifically on the growing role of community groups – often representing a local area, such as one or more villages or neighbourhoods – in generating renewable energy. In Scotland, a growing number groups have become involved in setting up renewable energy projects. This is done in various ways, such as solar panels on village halls, village wind turbines or hydro schemes.

I try to understand if such community energy projects are a way to achieve greater ‘energy democracy’, where everyday people have a greater say in the ways in which energy is generated. Supporters of community energy argue this shifts the balance of power away from private corporations and the state, towards citizens and communities. There is currently limited evidence, however, that community groups who develop energy projects are more democratic in the way they are governed.

In this research, I show that community energy projects can offer a way for everyday people to take part in energy projects and learn governance skills at the same time. This is not guaranteed, however. Groups vary in how they are governed, based on both local priorities but also external factors. Many groups find it difficult to be fully inclusive and accountable, for example because of a lack of skills in the community or time pressures that are the result of externally-imposed deadlines.

Although a greater role for communities is presented as a way to shift the balance of power in the energy sector, external factors also influence the development of community energy projects. I show that Scottish Government policies have played a key role in shaping the opportunities and limitations for community energy groups. This means that community energy projects have changed over the years, and not only because of the desires of community groups themselves.

I conclude that because of the diversity of community energy groups and the different ways in which they interact with other stakeholders it is important to determine who influences how projects are developed, when deciding whether projects contribute to greater energy democracy.

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Abbreviations

CARES	Community and Renewable Energy Scheme
CES	Community Energy Scotland
DTAS	Development Trusts Association Scotland
HICEC	Highlands and Islands Community Energy Company
HIDB	Highlands and Islands Development Board
HIE	Highlands and Islands Enterprise
LES	Local Energy Scotland
SCHRI	Scottish Community and Householder Renewables Initiative

1 Introduction

There are growing signs that a global energy transition is underway, replacing fossil fuels with renewable sources of energy (REN21 2016). Previous energy transitions show that major changes to energy systems underpinned broad social and geographical change, but there has been a lack of attention for how the current energy transition might impact the social and economic relations embedded in energy (Lawhon and Murphy 2012, Bridge *et al.* 2013, Eames and Hunt 2013). Although the centralised and privatised approach to energy generation continues to be dominant in the UK (Warren and McFadyen 2010, Strachan *et al.* 2015), there are also growing calls for a more decentralised or participatory approach to energy generation, particularly in the form of community ownership and control of the means of energy generation and distribution (Go *et al.* 2012, Seyfang *et al.* 2013, The Scottish Government 2015a, Angel 2016a, Labour Party 2016, Powell 2016). These calls for more community involvement are also apparent in other geographical and thematic contexts, including environmental and sustainability governance (Creamer 2015b, Taylor Aiken 2016a), urban and rural regeneration (Rose 1996, 2000, MacKinnon 2002, Jones 2003, Shucksmith 2010, McMorran *et al.* 2014); and the governance of numerous other resources, including water (Shiva 2006, Bakker 2008), and food (Hassanein 2008, Jarosz 2008). This emergence of ‘community’ as a key site and actor of governance in such a range of arenas has led Morton (2000, p.1 in Gibson-Graham 2006, p. 86) to conclude that

‘[W]e live in a society where too much community can never be enough.’

While proponents of these various forms of community governance consider them to be empowering and democratising, others consider them little more than a regulatory device (Swyngedouw 2005, DeFilippis *et al.* 2006). In Scotland, calls for more community governance have come from both civil society and Scottish policy-

makers. I therefore began this research project with the aim of better understanding the interactions between community groups and the Scottish state, in order to see whose visions for a low-carbon future are realised.

By undertaking secondary analysis of quantitative data, and extensive qualitative fieldwork with fifteen Scottish community energy groups and eleven intermediary organisations, the interactions between community groups and the wider landscape in which they operate has been analysed and examined, generating new insights into the socio-political dynamics of the spaces created by, and for, community groups in fostering low-carbon transitions.

This thesis challenges the assumption that a shift towards greater community-ownership of the means of generating and distributing energy is inherently more democratic. Findings show that the emergent spaces for community energy are both pluralist and hybrid in nature, the result of a devolution process that has been temporally and geographically diverse. This plurality and hybridity, however, raises questions around the democratic claims made for community energy, challenging its representation as a ‘common normative space’.

I begin the main body of this chapter by setting out the rationale for my research, and introduce the theoretical and empirical context in which it is situated. I then move on to the research aim and questions, terms of reference, and conclude by setting out the thesis structure.

1.1 Project rationale: from *low-carbon* society to low-carbon society

The conceptual approach to my research has been shaped by several factors, but particularly by a desire to foreground the role of politics in shaping the spaces for community energy. Such a focus is important as Meadowcroft (2011, p71) notes, ‘politics is the constant companion of socio-technical transitions’. The politics of

these transitions requires a redefinition of societal interests and relations, a process which requires us to ask: how, why and by whom are the terms of change defined, and with what purpose (Meadowcroft 2011, Lawhon and Murphy 2012)? Nonetheless, when I started my research in 2013, empirical and conceptual studies that explicitly focused on community energy *governance* and power relations within this process were small in number (Park 2012, Catney *et al.* 2014).

In this research, I thus consider 'politics' not only to be the formal realm of government policies, but the political struggles around the redefinition of how energy should be produced, by whom, and for whom. I consider these struggles to be situated within a broader context where the nature of governance is changing, with new governance spaces and actors emerging. Of particular interest to this research is, the 'emergence, proliferation and active encouragement' of new formal and informal institutional governance arrangements (Swyngedouw 2005, p.1992) and the role for 'community' in this process.

Partway through my research, I started to become aware of an emerging movement for 'energy democracy', and decided to integrate some ideas from democratic theory into my analysis of governance. Although, as the next chapter shows, the idea of energy democracy has gained in popularity, there was little analysis of why new forms of energy governance can be considered more democratic. Nonetheless, this is an important issue to consider. As Klinke (2016) notes, with traditional political institutions complemented by new institutional modes, issues of democratic control, accountability and legitimacy are increasingly blurred. 'Democracy' thus provides a novel and relevant lens through which the emerging governance arrangements can be studied.

Although renewable energy is often framed as an environmental issue, with success measured in Megawatts or CO₂ avoided, this thesis has used Harvey's (1996, p.182) argument that all proposals concerning 'the environment' are also proposals for social change, as a starting point. This was further emphasised as a result of a six-

month period working at the Scottish Government during the second year of my PhD. There, I worked on community landownership, but was struck by the similarities between the ways in which community land and community energy were framed. To me, this showed how (primarily place-based) communities are seen by different stakeholders as a key site and actor for (primarily rural) development; capable of, and sometimes expected to, taking charge of their own futures. As a result of this time at the Scottish Government and the observed commonalities between community energy and community land policies and practices, I increasingly came to see community energy as a *community* rather than an *energy* issue. This strengthened my desire to research the potential of community energy to reshape the social relations embedded in, and reproduced through, our energy systems rather than its potential to reduce carbon emissions.

Nonetheless, reading the literature on the role for ‘community’ in governance I felt neither fully at home with the neo-communitarian works of Putnam (1995, 2000) which often lauded community as the solution to all problems, but neither did I feel fully at home with the (often dismissive) works of those writing from a Foucauldian or neo-Marxist perspectives. It was here, that the work of DeFilippis *et al.* (2006) played an important role. Broadly this work has led me to consider spaces for community action as co-produced by both their internal practices, organisations and relations, and their larger external contexts. Such a focus on the ‘messy empirical realities’ of governance (McKee 2009, p.473) enables a closer look at how different visions for low-carbon governance are actually realised on the ground.

The choice to focus on Scotland was based on numerous decisions. My Masters dissertation sought to challenge the idea of community energy groups in remote rural Scotland as being representative of ‘natural’, homogenous communities (van Veelen 2013, van Veelen and Haggett 2016 - this latter paper is also attached as Appendix 1). Based on this research I was thus familiar with the Scottish context,

and there were a number of factors that contributed to my desire to continue to focus my research on the Scottish context: the combination of the high levels of coherence around renewable energy among stakeholders and political elites (Cowell *et al.* 2015); the availability of government support and targets for community energy (at the time absent in my native Holland); and the particular role of the history and culture of the Scottish Highlands in shaping the development of community energy and other community-led development approaches.

Additionally, at the time I wrote my proposal in early 2013, the majority of research publications focused on community energy in the UK had focused on either England or Wales (e.g. Walker, 2007, 2008, Walker *et al.*, 2007, 2010, Rogers *et al.*, 2008, 2012; Walker and Devine-Wright, 2008), with less evidence available from Scotland (exceptions include Warren and McFadyen, 2010; Bomberg and McEwen, 2012). Given the difference in policy - and potentially also the difference in the wider political context- but the limited evidence, Scotland thus makes for an interesting case study.

1.2 Conceptual context

1.2.1 *Community energy*

The concept of community energy is now generally accepted as a distinct form of renewable energy generation by researchers (Walker 2011, Rogers *et al.* 2012), activists and policy-makers (Meacham 2012, DECC 2014, The Scottish Government 2015b). Although a centralised approach to energy generation has continued to dominate in Scotland and the UK more widely (Warren and McFadyen 2010, Cowell *et al.* 2013, Hisschemöller and Sioziou 2013, Strachan *et al.* 2015) community initiatives have become increasingly visible as they have not only increased in number, but also in increasingly diverse forms and locations.

Despite its popularity amongst different stakeholders, the term ‘community energy’ continues to be used ambiguously and with flexibility (Becker and Kunze 2014). The ambiguous and flexible use of the term has enabled a range of different practices to emerge, both in the UK and internationally, which are sensitive to local contexts (Walker 2008b, Walker and Devine-Wright 2008, Seyfang *et al.* 2013, 2014, Slee and Harnmeijer 2017).

Community energy has become popular among practitioners as well as policy-makers for various reasons. One important reason why it has become popular among policy-makers is because it is believed to reduce opposition to renewable energy developments in general (Walker *et al.* 2010, Warren and McFadyen 2010). In recent years there has been a shift towards focusing on the socially constructed nature of people’s perceptions. As several studies have found: it does not just matter what is developed, but how it is developed (Bell *et al.* 2005, Gross 2007, Hindmarsh and Matthews 2008, Devine-Wright 2013). This research has shown that a more participatory approach can not only promote locally appropriate technologies, but also generate greater understanding and support for renewable energy (Walker and Devine-Wright 2008, Walker *et al.* 2010).

It has also been suggested, however, that communities themselves and society more widely can also benefit from community energy in a myriad of ways. Many of these suggested benefits can be traced back to the 1970s, when a normative discourse, based on ideas of small-scale development (Schumacher 1974) and ‘soft energy paths’ (Lovins 1978) started to emerge. Not only is there the potential financial benefit for communities themselves, but additionally it has been suggested that participation in community energy could greatly enhance social sustainability through local skills development (Gubbins 2010, Armstrong 2015, Forman 2017), building community capacity (Ison 2009) and community resilience (Gubbins 2010), improving social cohesion and trust (Rogers *et al.*, 2008; Walker *et al.*, 2007) and empowering communities (Mackenzie 2012), although some of

these suggested benefits have been questioned (Rogers *et al.* 2008, Walker *et al.* 2010, van Veelen 2013). Furthermore, the ambiguity of the term ‘community energy’ also means that these anticipated positive outcomes are applied to a very broad range of approaches, with little attention paid to the question how different approaches may have differentiated outcomes.

Community energy research has grown tremendously in recent years, reflecting both the widening geographical scope of the concept as well as the types of questions researcher are asking. Research on community energy initially focused primarily on how initiatives can be developed and system-wide change can be achieved (Bomberg and McEwen 2012, Haggett *et al.* 2013, van der Heijden 2013, Seyfang *et al.* 2014). More recently there has been a growing emphasis on the socio-political aspects of community energy, most explicitly expressed through concepts of energy justice and democracy (Fuller and Bulkeley 2013, Catney *et al.* 2014, Simcock 2014, 2016, Angel 2017). Nonetheless, there remains surprisingly little research that has framed the emergence of community energy within the broader context of changing state-civil society relations. As I will show in the next section, such a perspective could, however, help provide insights into whose visions for a low-carbon society are translated into practice.

1.2.2 Emergence of new spaces of intervention

As I stated in the rationale for this project, in addition to being part of the transition to a low-carbon energy system, I consider community energy also to be part of a broader transformation of state-civil society relations. By this I mean, the shift in recent decades from top-down *government* to networked *governance*. Key to this change are (1) the geographical rescaling of governance (Swyngedouw 2004) and (2) the emergence of both market and civil society actors into new governance arrangements (Swyngedouw 2005).

Of interest for this research is the re-scaling of energy governance, and in particular the emergence of 'community' as both a space for, and enactor of, low-carbon governance. As Taylor Aiken (2015) observes about UK environmental governance, 'community' has become both a normative good and a direct correlation of 'green' (see also Walker 2011, Seyfang *et al.* 2013, Catney *et al.* 2014, Middlemiss 2014, Taylor Aiken 2016a, 2016b, Taylor Aiken *et al.* 2017). This, however relies on a conceptualisation of community as distinct and homogenous (and thus often defined in geographical terms, the 'local community' (Taylor Aiken 2015), and as free of the exercise of internal power struggles (Lane and Corbett 2005). This emergence of 'community' is also evident in Scotland, with Markantoni and Woolvin (2015, p.202) remarking that there has been a 'more or less implicit shift' towards focusing on communities, rather than individuals, as sites of low-carbon intervention.

It is, however, important to question the rationale for, and practices, of community governance in order to understand whose visions are enacted. As various authors (DeFilippis *et al.* 2006, Gibson-Graham 2006, Taylor Aiken 2015) have noted, 'community' is often used ambiguously but nearly always invoked as an unequivocal good. It is thus very easy for 'community' to mean all things to all people, and that is potentially part of its appeal. As Middlemiss (2014) notes, the appeal of 'community' as a space and an actor for enabling low-carbon transitions is that it combines activists' desires for bottom-up change with a belief in a smaller state. Thus, not only do communities demand to be in charge of their own future, but they are also encouraged, and possibly even expected, to do so by national governments (Catney *et al.* 2014).

This focus on 'communities' is also evident in other policy areas, in particular the previous UK Government's Big Society agenda, and the Scottish Government's focus on Asset-Based Community Development (The Scottish Government 2013a, 2015a, Emejulu and MacLeod 2015). As Scotland, and the rest of the UK, have experienced

economic, political and social upheaval in the wake of the 2008 economic crash it is perhaps unsurprising that policy-makers as well as activists have begun to reevaluate the relationships between the state, the market and civil society (Emejulu and MacLeod 2015). The Scottish Government sees community energy as one form of asset-based community development, alongside other forms such as community ownership of land and buildings (The Scottish Government 2015a), aimed at promoting local, place-based actions, decision-making and resource-allocation processes (Skerratt 2013).

Although giving people more control over their services is not a bad idea in principle, not all communities will want to, or are able to, run their own services (Taylor 2011). Particularly, when suggested as a way to help ‘disadvantaged’ communities, Taylor (2011) argues that community projects risk being little more than a ‘spray-on solution’ to cover problems that often stretch beyond a community’s boundaries. Similar concerns have been expressed by a number of authors who have considered the emerging focus on ‘community’ within a broader neoliberal political-economic climate (for example Harvey 2005, Swyngedouw 2005, Gibson-Graham 2006, Kisby 2010, Westwood 2011, Featherstone *et al.* 2012, Levitas 2012, Lowndes and Pratchett 2012, Hopkin 2013, Catney *et al.* 2014, MacLeod and Emejulu 2014). As political theorists Gibson-Graham¹ (2006) note:

‘It is an interesting irony that in the current neoliberal political and economic climate, in which individualism is promoted as an unquestioned social good, all over the world the term community has increasingly come to the fore.’ (p.84 - emphasis in original)

According to these authors, ‘community’ is little more than the camouflage behind which government is withdrawing from society (Gibson-Graham 2006). This view sees language of community, civil society and decentralisation as part of a neoliberal move to delegitimise the state as a development actor (Mohan and

¹ To avoid confusion: I refer to Gibson-Graham in the plural, as it is the pen name shared by geographers Julie Graham and Catherine Gibson.

Stokke 2000, Mohan 2007, Featherstone *et al.* 2012) instead encouraging 'self-help' solutions, where local organisations become cheap and flexible service providers (DeFilippis *et al.* 2006). Thus, rather than asking citizens to *enhance* the state's provision of services, these authors argue that as part of a broader process of neoliberal governance, citizens are expected to *replace* them (Kearns 1995, Featherstone *et al.* 2012, Catney *et al.* 2014).

Although this may paint a rather bleak picture, (Featherstone *et al.* 2012) argue that alternative roles and spaces for communities are possible. They suggest that a progressive form of localism would consist of community strategies that form new linkages between place-based politics and global processes (Featherstone *et al.* 2012), and where the state plays a key part in facilitating a vibrant civil society, and recognises the uneven capacities and power relations that exist across society (Catney *et al.* 2014). Such a process would be the product of diverse trajectories and engagements and feed into broader social movements that aim to transform national and international policy frameworks, thus reversing the neoliberalisation of inter-and extra-local relations (Peck and Tickell 2002, Featherstone *et al.* 2012).

Thus far relatively few authors (Ison 2009, Middlemiss and Parrish 2010, Catney *et al.* 2014) have sought to evaluate community energy within this broader context of neoliberal governance. As the domain of community action and intervention in policy and practice continues to grow, so do the academic debates surrounding it. In this research I follow DeFilippis *et al.*'s (2006) lead in seeking to be neither celebratory or dismissive of community action, but by focusing on the different ways in which community governance practices and spaces are co-produced by both internal and external factors. As community efforts are always specific to a particular time and place, any analysis must situate these efforts in the varied social, economic, political and cultural sites which generate them (DeFilippis *et al.* 2006). I therefore now wish to consider the empirical context of my research in more detail.

1.3 Empirical context

Unlike the research I have conducted previously (van Veelen 2013, van Veelen and Haggett 2016), I did not set out for this to be a study of community energy in the context of the Scottish Highlands. Nonetheless, it has become evident over the course of this research that it is difficult to talk about community energy and not mention the Highlands. While this is certainly at least in part attributable to my choice of cases (most of which are in the Highlands and Islands), the notion of community energy as a community development tool – considered as such by many community groups and other stakeholders I spoke to – can be traced back to a much longer history of government policies which have sought to combine energy generation with local development in the Scottish Highlands.

1.3.1 Power from the Glen: integrating social and economic concerns into energy policy

Nearly all cases included in this research are located in the Highlands and Islands of Scotland. This reflects, as I discuss in Chapter Four, the dominance of community energy groups in this area compared to the rest of the Scotland. To understand community energy in Scotland, it is therefore important to take a closer look at the history of renewable energy in the Highlands & Islands. As this section shows, the special status of the Highlands in Scottish policy has enabled a context which has long intertwined community and energy development, and which has formed the foundations for the community energy sector today.

It is challenging to find a starting point from where to tell a historical story. Of key relevance for this thesis is the 1943 Hydro Electric Development (Scotland) Act, which linked renewable energy generation with the provision of local socio-economic benefits. To understand the emergence and impact of this Act, however, it is worth going further back in time. Here, I therefore follow Cameron (1997) and MacKinnon (2002) who identify the 1886 Crofters Holding Act as key in shaping

Scottish policies to the current day. Of primary relevance to my discussion here, is that the Crofters Holding Act enabled the Highlands 'to be problematized' as a particular object of governmental attention (MacKinnon 2002, p.311). Although other parts of Scotland were also affected by socio-economic problems such as economic hardship and de-population, the Crofters Act rendered these problems visible in the Highlands (Cameron 1997, MacKinnon 2002), which would subsequently contribute to the integration of socio-economic development into energy policy.

Initial energy developments in the Highlands were often small in scale, and installed by well to do individuals. In 1890 Benedictine monks installed an 18kW turbine in Fort Augustus, near Loch Ness. This scheme supplied their abbey with electricity and distributed the excess energy to the 800 inhabitants of the village (Lea 1969, Miller 2002), thus establishing one of the first community energy schemes in Scotland. In subsequent decades, many such small private electricity supply schemes were developed across the Highlands (Lea 1969).

The growth of the aluminium industry, the establishment of large-scale electricity supply authorities, and the 1926 Electricity Act began to change the energy landscape (Lea 1969, Miller 2002). While small scale supply schemes remained the only form of hydro energy in the Northern Highlands, areas closer to the population centres in the South or aluminium smelters began to see large scale hydro developments (Lea 1969, Miller 2002). These new hydro schemes were not always welcomed. Levitt (1999) suggests, that opposition to the schemes was based a desire for endogenous rather than exogenous development. While discussing a proposed hydro-electric scheme for the Highlands in 1936, Conservative MPs argued that such a scheme could 'modernise' the area and boost employment, but others feared it would encroach on the rights of local communities to develop resources in their own way (Levitt 1999); discussions which are still had 80 years later (see for example Mackenzie 2012). When in 1938 the Caledonian Power

scheme failed to get through the House of Commons, the Inverness Courier printed in an editorial:

'The opponents of [the Bill] have been falsely represented as being opposed to the development of water power and the introduction of industry in every shape and form. Nothing could be further from the truth. What we ... maintain is that there shall be no further development of the water power resources of the Highlands until a Committee is set up by the Government to enquire [how] ... these water resources should be developed for the benefits of the Highlands.' (Barron 1938 in Miller 2002, p.19)

A few years after Barron's editorial, the UK Government did establish such a Committee. This committee, the Cooper Committee, recognised the 'Highland Problem' in their final report:

'[...] the Highlands has long been a depressed area and will remain so unless vigorous and farsighted remedial action is taken' (Miller 2002, p.22)

At the advice of the Cooper Committee, the UK Government passed the Hydro Electric Development (Scotland) Act in 1943. This Act kick started publicly-owned hydro developments across the Highlands, establishing the North of Scotland Hydro-Electric Board and bringing electricity to virtually all areas of the Highlands. The establishment of the Board reflected a change in the UK Government's approach to the Highlands, widening the scope of intervention, with economic and infrastructural development becoming central issues (Cameron 1997).

As I said before, what is important for this thesis is that this Act linked renewable energy generation with the provision of local socio-economic benefits. This was ensured through the establishment of a 'social clause' which instructed the Board to use its profit to carry out measures for the economic development and social improvement of the North of Scotland, through reducing the cost of distributing power to remote, low-populated parts of Scotland (Levitt 1999, Miller 2002). This helped the Board to develop its own unique identity, based on the central role

assigned to it in addressing the Highland Problem through economic regeneration (Lea 1969, Cameron 1997).

Despite these lofty aims, Tom Johnston, Secretary of State for Scotland at the time, knew that the reality was likely to be partial economic development, but little social change (Cameron 1997). As it turned out, the 'social clause' primarily ensured the provision of electricity to domestic consumers at a flat tariff, regardless of remoteness (Cameron 1997). As a result, by 1959, after 15 years of work the Hydro Board estimated that 90% of the Highlands now had electricity, at highly subsidised rates (Miller 2002). While helpful to households, its contribution to wider economic regeneration was questioned, with many in the Highlands continuing to suffer from economic hardship:

'[...] virtually nothing has been done by way of small development in rural areas which would give supplementary employment to crofters.' (J.S. Maclay, Scottish Secretary, 1958 cited in Levitt, 1999, p.85)

It is perhaps not surprising then, that a committee set up in the early 1960s to report on hydro-electricity in the Highlands, was sceptical about the value of the 'social clause' (Cameron 1997). It nonetheless reiterated the special status of the Highlands, and that 'only an organisation confined to the Highlands can appreciate, and successfully deal with the problems here' (MacKenzie Committee 1962-3, p.91 in Cameron 1997, p. 206).

With this in mind, the UK Government established the Highlands and Islands Development Board (HIDB) in 1965, with the powers to assist any enterprise likely to promote employment (Levitt 1999). As Chapter Six shows, the HIDB was initially reluctant however to support small-scale energy developments. There was relatively little new renewable energy activity in Scotland in the two subsequent decades. Although the existing hydroelectric schemes remained important to power the aluminium smelters as well as households across the country, any new

decentralised technologies were deemed not to fit with the existing centralised energy system. Although technological advancements also played a role in changing the Scottish (community) energy landscape, what I want to focus on next is the political changes that contributed to this. This will show that the (re)emergence of community energy is tied to both political devolution and the continued special status of the Highlands.

1.3.2 Devolution and the emergence of community energy

Whereas the developments described in the previous section had largely been within the realm of the Scottish Office in Westminster, Scottish devolution in 1998 changed the political landscape. What is interesting about devolution in the UK in relation to energy policy, is that the scalar arrangements for addressing energy issues are in essence a by-product of changes to governance arrangements driven by economic and political agendas, in which energy and the environment are subsidiary concerns (Cowell and Owens 2006, Cowell *et al.* 2015). The devolution of energy-related powers was largely dependent on the powers that had previously been exercised by the Minister for Scotland in the UK Government (Cowell *et al.* 2015). As a result, the UK Government retained overall responsibility for key energy policy areas, including setting the budget available for market support mechanisms for renewable energy, although the Scottish Government can shape the delivery of some schemes (Cowell *et al.* 2015, Strachan *et al.* 2015).

Despite the Scottish Government's limited powers, there has been a rapid expansion of renewable energy in the years since devolution. Cowell *et al.* (2015, 2017) attributes to this to sustained elite coherence around renewable energy, which has helped create and stabilise a supportive policy environment, legitimise the Government in making use of the powers available, and marginalising more critical voices. While Cowell *et al.* (2015, 2017) offer further valuable analyses of the impact of devolution on renewable energy policy and practice in the different

parts of the UK, I would like to focus here specifically on the impacts of devolution on community energy.

From 2000 onwards there has been increased political interest in community renewables in the UK (Strachan *et al.* 2015). While community energy continues to play only a minor role in energy provision, there has arguably been a greater interest in, and support for, community energy in Scotland compared to the rest of the UK. This is particularly visible through the Scottish Government's target of 500MW of community- and locally-owned energy by 2020 (now revised to 1GW after the original target was met in 2016 (The Scottish Government 2017)), and the availability of support mechanisms which are often considered more generous than those available elsewhere in the UK (Walker and Devine-Wright 2008, Strachan *et al.* 2015).

This has been enabled not only through the partial devolution of energy policy, but also through the more extensive devolution of social policy to the Scottish Government, including policies focused on community development. This has enabled the Scottish Government to introduce support mechanisms to complement the Renewable Obligation Certificates and the Feed-in Tariff introduced by the UK Government. These include the Scottish Householder and Community and Householder Renewables Initiative (SCHRI) in 2002 and the Community and Renewable Energy Scheme (CARES) in 2008. Initially a grants scheme CARES changed to a primarily loan-based scheme in 2011 to maintain eligibility with the introduction of the Feed-in Tariff by the UK Government (The Scottish Government 2014a).

This is not to say, however, that the UK context is of negligible influence. While previous research (Bomberg and McEwen 2012, Strachan *et al.* 2015) has also shown that the Scottish context is sufficiently different from other parts of the UK to warrant closer investigation, it has become evident to me through my fieldwork that one cannot understand community energy in Scotland without at least

recognising the impact of policies and priorities decided elsewhere. During my fieldwork two important events took place: a decision made by the Financial Conduct Authority on the status of energy cooperatives in 2014 and the reduction of the Feed-in Tariff in 2016.

The cut to Feed-in Tariff rates has particularly important implications. It means that the model used by many, if not most, community energy projects to date - feed electricity into the national grid, rather than use it locally - will no longer be economically viable (Hartley 2016). As a result, both communities and the Scottish Government are currently considering what alternative models of community energy could be viable in the future (The Scottish Government 2017). Separately to the cut to the Feed-in Tariff, a decision by the Financial Conduct Authority in 2014 has blocked the registration of new energy cooperatives on the grounds that such groups are not *bona fide* cooperatives (Hartley 2015). It has thus primarily affected those community groups wishing to use a cooperative model to establish an energy project, but may also have consequences for groups already registered as a cooperative.

1.3.3 Community energy as place- and asset-based development

Despite the continued influence of the UK policy context on community energy in Scotland, as Chapter Four and others (Haggett and Quiroz-Aitken 2015) show, the Scottish community energy sector is also different from the rest of the UK. This can at least in part be explained by the devolution of social policy to the Scottish Government and the emerging emphasis on place- and asset-based approaches to development in Scotland (see Skerratt 2013, Skerratt and Steiner 2013, MacLeod and Emejulu 2014, Emejulu and MacLeod 2015, The Scottish Government 2015b, Bynner 2016). The Scottish Government sees community energy as one form of asset-based development by place-based communities, alongside other forms such as community ownership of land and buildings (The Scottish Government 2015a).

What these various approaches have in common is that they are all considered to be part of a positive spiral, where through the ownership of physical assets, place-based communities experience a positive spiral through which other assets are also enhanced, resulting in more empowered and resilient communities (Kretzmann and McKnight 1993, Mathie and Cunningham 2003, The Scottish Government 2015b)

According to the Scottish Government, its support for community energy projects reflects not only its focus on the role of communities in reducing carbon emissions (The Scottish Government 2012a), but also its focus on promoting rural development and empowering communities (The Scottish Government 2012b). The emerging role for *local* communities in enabling development and regeneration has also been evident in other policies, including the Scottish Government's 2011 Regeneration Strategy, the Community Empowerment (Scotland) Act 2015, and the Land Reform (Scotland) Act 2016.

Of relevance here, is that community energy not only became associated with asset- and place-based approaches to community development, but that these were especially promoted in rural areas. For example, until recently support for community land purchases was only available in the Highlands and Islands, with the notion of the 'Highland Problem' remaining relevant. As Chapters Four and Six discuss in more detail, originally much of the support for community energy was also focused on this region, a continuation of the idea that energy generation should have local benefits. The consequences of this for the sectoral and spatial configuration of the community energy sector will be discussed in more detail in Chapter Four.

In summary, I have provided an overview of both the historic and current political context which have shaped the community energy sector in Scotland. It shows that there is a historic precedence in Scotland to the idea that renewable energy generation is not solely an *energy* issue, but a *socio-economic development* issue.

The historic construction of the ‘Highland Problem’ to which renewable energy is a solution, has played a key role in shaping the Scottish community energy sector, as will be shown in greater detail in Chapter Four. This section has also set out the background of the current political context, in which both the partial devolution, but also the devolution of social policy play an important role. This has led to community energy to be framed as part of a wider community energy development agenda, focused on supporting place-based, asset-owning communities. The implications of this for community energy will be considered further in empirical Chapters Four to Six. This brief discussion on political devolution from the UK Government to the Scottish Government thus complements following chapters, which situate community energy within a broader trend of devolution from the state to civil society.

1.4 Research aim and questions

Based on the rationale presented in section 1.1 this PhD has the following research aim:

To better understand if and how community energy initiatives in Scotland are contributing to greater ‘energy democracy’.

As I explain in more detail in Chapter Three, in seeking to meet this aim I adopted a pragmatic interdisciplinary approach to research, using mixed qualitative and quantitative methods. I explain my rationale for this in more detail in that chapter, but in summary, it reflects my objective to conduct multi-scalar analysis and to illuminate the ways in which particular cases are embedded in wider contexts (Philip 1998, Greene 2008, Robbins 2012).

Research questions are essential for guiding the research process, but it is also acknowledged that the development of questions, and answers to them, is an interactive process that continues throughout the PhD:

'Every phase of the research offers opportunities to reconsider, reformulate and refine the research question... question work is sometimes only resolved when the question, and answers, come together at the end of the research.' (Green 2008, p.60)

While the rationale for this project remained broadly the same throughout my research, the research questions for this project did change. Through this process I generated four distinct research questions, which correlate with the material presented in Chapters Two, Four, Five and Six.

Research questions:

1. How can the concept of 'energy democracy' be conceptualised?
2. How can the make-up of the Scottish community energy sector be understood?
3. How do Scottish community energy groups establish and negotiate practices of (democratic) governance at a community-level?
4. How does the role of intermediary organisations reflect state – community relations in the Scottish community energy sector?

1.5 Terms of reference

Community: 'Community' can be enacted and defined in numerous ways (Walker 2011, Taylor Aiken 2014, 2016b, Rudolph *et al.* 2017). Here, I follow Taylor Aiken *et al.* (2017) and adopt the ontological standpoint that community has multiple meanings for the different actors engaged in energy governance, meanings that perform different functions for those actors. As such communities are both politically and socially complicated, and power riven. In the context of this study, 'community' refers alternatively to an actor with agency, as a scale (above the individual/household but below local government), as a place (a set of relationships embedded in a particular locality), and as a process (the participation of 'ordinary people' in collaborative processes) (adopted from Walker 2011).

Throughout this thesis I will try to make clear which meaning is referred to, and adopt a critical view (Taylor Aiken *et al.* 2017) to capture the tensions emerging from translating this meaning into function.

Community energy: It is well-recognised that not only ‘community’ but therefore also ‘community energy’ are contested concepts, often used flexibly and ambiguously (Walker and Devine-Wright 2008, Kunze and Becker 2014, Seyfang *et al.* 2014, Strachan *et al.* 2015). It was with this in mind that I set out to develop a typology of community energy projects in Scotland. This typology, presented in Chapter Five, seeks to bring the concept more sharply into focus through highlighting its different components. Despite the impossible challenge of providing a neat and final definition of ‘community energy’ here, I do wish to provide a broad idea of how I have interpreted and operationalised community energy in my research. I use community energy to refer to projects which *generate renewable* energy, and which are partly or wholly owned by a *civil society* group. Due to the Scottish nature of this research, most, but not all, of these groups are *geographical* communities.

Energy democracy: The third key term is ‘energy democracy’, which is also ambiguous in nature, and is used to refer to both a desired end state as well as the process of getting there. I explore both the origins and interpretations of the concept in more detail in Chapter Two. Broadly speaking, however, the energy democracy concept connects particular (associative) ways of organisation, with the materiality of renewable energy. While fairness and access to energy are important considerations, it emphasises procedural dimensions, and views local or community groups as best-placed to ensure democratic decision-making. Drawing on the literature presented in Chapter Five I consider energy democracy to be a situation where decision-making on energy issues is accessible and inclusive, decision-makers are accountable, and where disputes are resolved fairly. As later

chapters will also show, however, energy democracy to me, is not primarily a normative (theoretical) construct, but about what people do on the ground.

1.6 Thesis structure

This thesis has been structured as a series of publications. This decision was primarily based on practical considerations. The importance of publishing from one's PhD is consistently emphasised for those wishing to pursue an academic career. Once I had my first publication accepted in early 2016 it therefore appeared to make sense to use this as the basis for my thesis. I found that this approach also had a secondary benefit, thinking of my research in terms of individual papers helped me structure my thoughts and made the writing-up process seem less daunting. At the same time, I understand this approach risks reducing the internal coherence of the thesis as a whole. As two of my Chapters (Four and Five) have gone through the peer review process, their quality has improved, but incorporating reviewers' suggestions sometimes pulled these papers away from their original message. I have therefore included additional sections that did not appear in the papers submitted for publication to enhance this thesis' coherence, as well as an extended methodology chapter to provide further background information about how I approached my PhD research as a whole.

Chapter Two maps the concept of 'energy democracy'. In this chapter, I trace the concept's emergence, analyse its conceptual foundations and set out its potential contribution to social science energy research. Due to the very limited availability of academic work on the topic, the chapter has a broad set up, analysing the 'what', 'where', 'how' and 'why' of energy democracy through discussing its connections with a number of conceptual ideas and theories from both political science and geographical research. This chapter was submitted as a review paper for publication in June 2017, with Dr. Dan van der Horst as second author. Dr. van der Horst contributed to the introduction and conclusion to the paper.

In Chapter Three I set out my methodological approach. The first section of this chapter outlines the roots of my methodology, which provides the rationale behind the decision to conduct mixed methods research. In the second part of this chapter I describe the practicalities of my chosen methods; secondary analysis of quantitative data and primary data collection through semi-structured qualitative interviews. Throughout this chapter I also trace my research journey and justify why I made particular methodological decisions. Through explaining my approach to my PhD research, this chapter thus complements the brief methods sections included in each of the following three chapters.

I present my research findings in Chapters Four, Five and Six, with each chapter correlating to one of the research questions described in Section 1.4. Chapter Four builds on the literature presented in Chapter Two. Chapter Two showed that proponents of energy democracy tend to assign a key role to communities in realising their vision. The community energy sector, however, encompasses a broad range of aims, motivations, and practices, and it is not very well understood how this heterogeneity affects, or is affected by, the role(s) assigned to community initiatives. Chapter Four is a first step towards enhancing this understanding by providing a more systematic analysis of the diverse range of sociotechnical configurations that make up the community energy sector in Scotland. It presents a community energy typology based on a secondary analysis of quantitative data. The Chapter's proposition is that such a typology is an important step towards reducing conceptual vagueness, structure discussions around the drivers, consequences, limitations and possibilities of community approaches to energy generation, in a way that includes not only the material dimension of CE, but also highlights issues of recognition and participatory process. This 'mapping' of the community energy landscape subsequently serves as a basis for the subsequent two chapters. This Chapter has been published in *Scottish Geographical Journal*, and has been included in published form in this thesis.

In Chapter Five I take a closer look at the internal governance of community energy groups. It emerged from the realisation that while the energy democracy movement suggests that community forms of energy governance are more democratic than the status quo, there is little evidence that demonstrates this. In this Chapter I therefore contribute to the emerging field of energy democracy by analysing the complex and varied ways in which communities in Scotland practice energy governance. Through focusing on three key governance processes (decision-making, accountability and dispute resolution) I show the importance of geographical, temporal and material contexts for the establishment and negotiation of democratic practices. I also note how this specificity raises further questions regarding the universal applicability of the concept of energy democracy. As of June 2017, this Chapter has been accepted by the journal *Environmental Politics*, subject to revisions. The published version is expected to be similar, albeit slightly shorter than the version included in this thesis.

Chapter Six seeks to build on the previous two empirical chapters by analysing the spaces in-between community and Scottish-level governance. It builds on the previous chapter which shows how energy governance is distributed across a particular space (the ‘community’), to focus the connections and interactions between that space and others. It does so by focusing on the roles and spaces for community energy intermediaries. Such organisations not only shape local and national/global spaces for community energy, but these other levels also shape the spaces in which intermediaries operate. This chapter therefore looks at the interactions between intermediaries and the spaces they occupy to demonstrate how intermediaries are enrolled in broader processes of neoliberal governance, which in turn influence intermediaries’ capacities and actions. It thus seeks to foreground the political struggles around how these interactive spaces between local and contextual factors are shaped. This helps to highlight how spaces of governance not simply ‘are’, but are in themselves the product of a particular set of

relations and processes within and beyond them. As of June 2017, I am preparing this chapter for publication.

The concluding chapter, Chapter Seven, has two purposes. First, it serves to pull together the findings and analyses of the previous chapters. While the preceding three chapters each have a concluding discussion, here I discuss my findings as whole. I discuss the plural and hybrid nature of community energy in Scotland and discuss the implications this has for 'energy democracy'. Second, I reflect on the evolution of my thesis and the contributions that my research has made. I do so in three sections, respectively discussing the theoretical, methodological and policy/practical implications of my research, before finishing with a summarising conclusion

2 What is energy democracy?²

The empirical chapters (Chapters Four – Six) in this thesis are structured as research papers, and each includes a review of the literature pertinent to that chapter's topic. Here, I therefore seek to complement, rather than duplicate the literature discussed in these later chapters. I do this by focusing on the emerging concept of energy democracy, which provides a novel angle to situate my research on community energy governance. In this chapter, I provide a critical, conceptual understanding of the term energy democracy, identify its key principles and situate these within broader theoretical debates. I also identify a number of avenues for further research, some of which form the basis of the subsequent empirical chapters.

2.1 Introduction

The term 'energy democracy' has gained significant popularity over the last five years, especially amongst activists and practitioners in the Global North. The aim of this chapter is to develop a critical, conceptual understanding of this term; does it represent a particular, coherent vision? What kind of democracy does it allude to? What kind of restructuring of an energy system does it demand?

Energy democracy is one form of what I label here as 'material democracies'. It is part of a broader trend in both research and practice which has sought to foreground the 'stuff' of politics (Braun and Whatmore 2010) based on an understanding that 'objects...bind all of us in ways that map out public space profoundly' (Latour and Weibel 2005, p.15). In other words, it raises the question: how do material objects, and our relations with them, constitute particular forms of

² This chapter has been submitted for publication with Dr. Dan van der Horst as second author. Dr. van der Horst has contributed to the writing of the introduction and discussion (sections 2.1 and 2.9).

social and political life? While matter and politics have long been connected, this connection has increasingly become a focal point for both social movements and academic research.

Yet, although democracy, citizenship and associated concepts are increasingly invoked, it is often unclear what these terms refer to, or what political theory informs them. Elsewhere, ‘democracy’ has been used to advocate for a variety of socio-material relations, such as *representative* environmental democracy (Ball 2006), *participatory* food democracy (Hassanein 2008), *deliberative* water (Susskind 2013) and innovation (Smith and Stirling 2016) democracy, and *associative* energy democracy (Chavez 2015, Rommel *et al.* 2016).

In relation to existing research, the novelty of this study is threefold. Academics have started to note and write about the use of the term energy democracy (Strachan *et al.* 2015, McHarg 2016, Angel 2017) but nobody has yet examined its use across the world in critical detail. Secondly, the seemingly adjacent concepts of ‘energy citizenship’ (Devine-Wright 2007) and ‘energy justice’ (Sovacool and Dworkin 2015, Jenkins *et al.* 2016, 2017, Simcock 2016) are now the focus of extensive academic enquiry. There is thus a need to examine if energy democracy merits similar attention as a stand-alone concept, and how it relates to (the literature on) energy citizenship and energy justice. And finally, there is the need to engage with political theory literature as well as research on previously studied ‘material democracies’ (which often also relate to infrastructure).

The chapter is structured as follows. First, I examine the possible types of democracy inherent in discussions around resource democracies. Secondly, I chart the origin of the term energy democracy and provide an overview of the literature (grey and academic) where energy democracy is mentioned. The subsequent parts of the study are structured around four fundamental, but related, tensions identified in this literature: what, why, who and where. ‘What’ consists of two parts: first it focuses on the way in which ‘democracy’ is conceived, before asking

the question ‘democracy of what?’ and bringing materiality into the discussion. ‘Why’ addresses the question of what the energy democracy movement’s aims are: is it a means or an end, and what are the suggested links between democratic processes and outcomes? ‘Who’ focuses on the key actors identified in the literature: who is at the heart of the vision for greater energy democracy? ‘Where’ focuses on scale and scope: how the spatiality of energy democracy shapes, and is shaped by, the changing social-material relations promoted by the energy democracy movement. Finally, I draw the findings together in a discussion about the academic questions surrounding energy democracy as a concept and a social movement.

2.2 Introducing energy democracy

As a starting point for this review I searched for literature which mentioned ‘energy democracy’ to understand the current use of the term. A search for the term on Google Scholar and Scopus yielded no findings older than five years. Table 2.1 includes all publications that made more than a single reference to energy democracy. Any publications found through this search were read, with references followed up to identify the origin of the concept. What is evident from this search and the data presented in Table 2.1, is that it is difficult to pinpoint the exact origin of the term. It appears, however, that in its early stages it was primarily used by researchers and non-governmental groups in the US (e.g. Sovacool 2011, Giancattarino 2012, Sweeney 2013), before gaining ground in Europe. There, the term has been used in a number of countries, including the UK, Poland, and especially Germany (Weis *et al.* 2015).

Authors	Year	Type of source	Geographical focus	Energy democracy definition (if provided)
Sovacool	2011	Academic paper	United States	
Giancatarino	2012	Research report	United States	True energy democracy is allowing consumers to become producers, owners, and decision-makers around our energy future.
Sweeney	2012	Research report	United States	
Klimacamp Lausitzcamp	2012	Activist website	Germany	Universal access to sufficient energy. Energy production must neither harm the environment nor people.
CSI	2013	Research report	United States	
Cumbers <i>et al.</i>	2013	Research report	Scotland	
Kunze and Becker	2014	Research report	Europe	Four separate areas: democratisation, property, surplus value production and ecology.
Farrell	2014	Research report	United States	Five pillars of energy democracy: flexible, efficient, low-carbon, local, equitable.
Weinrub	2014	Research report	United States	A shift in power towards workers, communities and the public.
Weis <i>et al.</i>	2015	Research report	Germany	Five dimensions to energy democracy: distributive justice, procedural justice, access to energy, socially appropriate energy infrastructures, socio-ecological transformation
Strachan <i>et al.</i>	2015	Academic paper	United Kingdom	This idea of linking decarbonisation with social control of energy.
Calvert	2015	Academic paper	N/A	Hyper-distributed and less capital-intensive energy production systems
Duda	2015	Blogpost	United States	Solutions controlled by and accountable to those who are most likely to be left out of a market-driven green transition.
Weinrub and Giancatarino	2015	Research report	United States	An informed and conscious community that understands the right relationship of people to natural resources and the need to live in ecological balance.

Authors (continued)	Year	Type of source	Geographical focus	Energy democracy definition (if provided)
Chavez	2015	Web article	United States	More decentralised and socially controlled energy systems
Vansintjan	2015	Research report	Europe	
Yildiz and Radtke	2015	Academic paper	Germany	
Sovacool and Blyth	2015	Academic paper	Denmark	
Tokar	2015	Academic paper	N/A	
Simmons <i>et al.</i>	2015	Academic book chapter	United States	
García-Olivares	2015	Academic paper		
McHarg	2016	Academic paper	Scotland	The importance of local control over energy decision-making and citizen participation not merely as consumers, but also as ‘producers, distributors, owners, sharers and collective users of energy’.
Powell	2016	Blog post	United Kingdom	
Carrilho da Graça and Gomes	2016	Research report	Portugal	
Pearl-Martinez and Stephens	2016	Academic essay	N/A	New opportunities for more distributed ownership and engagement in energy.
Morris and Jungjohann	2016	Academic book	Germany	Four aspects: autonomy from energy companies; something currently mainly pursued in Denmark and Germany; the most often overlooked benefit of distributed renewables; the path to better quality of life
Angel	2016a	Workshop report	Europe	Collective control over the energy sector, counterposed with the dominant neoliberal culture of marketisation, individualisation and corporate control
Rommel <i>et al.</i>	2016	Academic paper	Germany	

Authors (continued)	Year	Type of source	Geographical focus	Energy democracy definition (if provided)
Baker	2016	Academic paper	Mexico	Energy democracy provides affected communities a role in determining the types of energy distributed to them as well as the types of entities that distribute it.
Angel	2016b	Research report	Europe	Bringing questions of conflicting interests, control and ownership, colonialism, class, gender, race; in short, questions of power – to the centre of the energy debate.
Labour Party	2016	Speech	UK	Community ownership of clean energy
Angel	2017	Academic paper	Germany	Collective control, universal access and social justice
Demokracja Energetyczna	n.d.	Activist Website	Poland	

Table 2.1: Overview of the energy democracy literature reviewed

While definitions vary, key dimensions of energy democracy include 1) shifting from fossil fuels to renewable sources; 2) some form of local or collective control; 3) a shift from seeing people as consumers to seeing them as active energy ‘citizens’, e.g. users, producers, owners and sharers; and 4) fair, universal access to energy. On both sides of the Atlantic, energy democracy is therefore primarily framed as a combination of environmental concern and pushback against privatisation. There are also, however, differences in focus, based on the national contexts in which the concept has been used. For example, in the US the movement for energy democracy, like that for environmental justice, places a strong emphasis on marginalised communities, such as communities of colour and indigenous people (Weis *et al.* 2015). In the UK, these authors argue, the concept is more closely affiliated with ideas of fuel poverty and climate justice (Weis *et al.* 2015). Although in both places energy democracy remains a relatively unknown term, in Germany, on the contrary, the language of energy democracy has been widely adopted by energy cooperatives, villages and local authorities who have engaged in the energy transition for years. In 2013, it served as a slogan to advocate for the remunicipalisation of energy networks in Berlin and Hamburg (Weis *et al.* 2015). Thus, in Germany energy democracy is not solely seen as something that *should* be happening, but also as something that is already taking place.

What also became evident through this search is the activist roots of the energy democracy concept. Whilst some reference to energy democracy has been made in academic literature, most publications in Table 2.1 can be defined as ‘grey literature’: reports or articles published by non-governmental organisations, think tanks and policy groups. For these organisations, many of whom are not inherently focused on energy or environmental issues, energy democracy has become a new hook or approach around which to focus their efforts.

It was also clear that energy democracy has primarily gained traction in the Global North, with all publications included in this review originating from, and focusing

on, either North America or Europe. Due to the geographical origins of the concept, conceptualisations of energy democracy tend to be from a perspective where (near) universal access to energy has already been achieved, at least in terms of physical infrastructure. One shortcoming of the concept is therefore its limited traction in the Global South, where concepts of energy sovereignty, justice, and colonialism may have greater resonance (Angel 2016b). There are, however, indications that connections are made with groups in the Global South through global initiatives such as Trade Unions for Energy Democracy (2015), a platform for trade unions from all countries to advance democratic control of energy. As the concept spreads across different groups and geographical locations, it is important however to understand in more detail what type(s) of 'democracy' proponents suggest.

2.3 What (I) - What does 'democracy' in energy democracy look like?

It is perhaps worth starting with a brief, but widely accepted definition of democracy: a political system in which the opportunity to participate in decisions is widely shared among all adult citizens (Dahl 1991). The more comprehensive and significant these opportunities are, the more democratic a political system is (Mason 1999). The trouble is, however, that 'democracy' is a slippery term. In their work on innovation democracy Smith and Stirling (2016) found that 'democracy' is often used quite lazily and can have contradictory meanings, a finding which arguably also applies to the literature on energy democracy (McHarg 2016). This section therefore seeks to clarify the type(s) of democracy promoted in the energy democracy literature.

The literature included in this review shows that at the heart of most visions for energy democracy is greater public control or ownership of energy resources. For many, this greater public control is not to be achieved through (re)nationalisation

of energy resources of centralised control, but through distributed ownership (Pearl-Martinez and Stephens 2016); local control and ownership (Farrell 2014); greater involvement of cooperatives (Carrilho da Graça and Gomes 2016), citizens and communities (Morris and Jungjohann 2016); or direct (Vansintjan 2015), or community participation (Weinrub and Giancattarino 2015).

Johnston *et al.*'s (2009) observation that food democracy represents a 'decentralised terrain' (p.510), can also be applied to energy democracy. Nonetheless, I identified three key dimensions to the energy democracy literature's visions of democracy: (1) greater citizen participation in decisions around energy, (2) that this participation takes place at a local level, and (3) that it is organised through civil society organisations. By combining these three aspects, it is evident that advocates for energy democracy invoke an image of democracy that is closely related to that of associative democracy.

Concepts of associationalism or associative democracy have a long history in political theory. They were developed in the nineteenth century as an alternative to both individualism and socialist collectivism, promoting principles of cooperation and mutuality, as well as a federalist and political pluralist view of the state (Hirst 1994). Hirst's (1994) seminal work has played a key role in developing contemporary designs of associative democracy (Perczynski 2000). In its most basic form associative democracy is 'deceptively simple': it argues that 'individual liberty and human welfare are both best served when as many of the affairs of society as possible are managed by voluntary and democratically self-governing associations' (Hirst 1994, p.19). Thus, for Hirst as well as for many proponents of energy democracy, associative democracy is different from participatory democracy, by turning state-civil society relations on its head: it sees self-governing voluntary bodies as the primary means of both democratic governance and organising social life (Hirst 1994).

There is, however, a second principle to Hirst's conceptualisation of associative democracy which is shared by some, but certainly not all, in the energy democracy movement. This second principle seeks to change the way in which I conceive of democracy: not solely in terms of the rule of the majority, but in terms of the quality of decision-making that results from the continuous flow of information and interaction between governors and governed (Hirst 1994, p.35). Here, Hirst draws on Durkheim's notion of communicative democracy, which views democracy as a process of effective two-way communication between the state and organised social groups. As such, Durkheim regards democracy not as a narrowly conceived political system used to select leaders, but as a type of society, an end in itself (Royce 2015). Within this society, the state is envisaged to play a coordinating role, with communication the foundation of this coordination (Hirst 1994).

This view of democracy as communication has been adopted by some energy democracy proponents. 'Conventional' energy governance has been criticised for making decisions to allocate, use and consume energy in particular ways for particular purposes out of the public eye (e.g. Newell and Mulvaney 2013). While the energy democracy literature largely focuses on enhancing direct participation through local level action, it recognises that some higher level strategic coordination is needed (Cumbers *et al.* 2013). Here, the literature suggests that procedural dimensions of communicative democracy, such as greater transparency, accountability and deliberation in decision-making, are means through which 'negotiated solutions' (Cumbers *et al.* 2013) can be achieved. It is important to note though that not all adopt this view of communicative democracy. Others view the concept of democratic decision-making not in terms of deliberation or negotiation, but in terms of the 'one person, one vote' principle (e.g. Vansintjan 2015), which is seen as more democratic than the (perceived) current situation where powerful actors dominate decisions.

To summarise, the associationalist view advocated by many of those arguing for greater energy democracy focuses particularly on recasting the relationship between the state, the market and civil society through a reorganisation of how energy resources are controlled. It seeks to promote control at the very local level, where it seems relevant to people (also see Dinham 2005). This way, energy democracy proponents see associative forms of democratic governance as a means to link procedural and substantive dimensions of democracy, where the management of social affairs by voluntary and self-governing associations is deemed to ensure that both citizen choice and public welfare are best served (also see Hirst 1994). In addition to asking the question ‘what type of democracy?’ it is also important to ask, ‘democracy of what?’ in order to understand the energy democracy concept and what it can add to existing studies on resource governance. This will therefore be the main theme of the next section.

2.4 What (II) – Democracy of what? What does a material focus on energy contribute to conceptualisations of democracy?

Thus far this chapter has primarily focused on expanding on the ‘democracy’ aspect of energy democracy. Also important, however, is the question of what the materiality of energy can bring to conceptualisations of democracy: what is the sort of engagement that generates a democratic public – made of (Marres and Lezaun 2011)? It is possible to envisage participation in civil society energy groups as contributing to democracy based on two interconnected ideas. First, there is the previously introduced view, which considers such groups as sites of deliberative or communicative democracy, where deliberators share their views and have them challenged through persuasion rather than coercion, manipulation or deception (Dryzek 2000). This is a common way in which energy publics are framed: as ‘deliberative citizens’ who are able to deliberate and participate in energy transitions through voicing their opinions in discursive fora (Chilvers and Longhurst 2016).

Struggles around the social, economic and political relations embedded in energy do not, however, solely taking place in discursive fora. A number of publications in recent years have sought to theorise how the socio-material conditions of public participation can challenge or complement visions of public action grounded in deliberative processes discussed in the previous section (e.g. Marres and Lezaun 2011, Davies *et al.* 2012, Chilvers and Kearnes 2016, Chilvers and Longhurst 2016, Smith and Stirling 2016).

Chilvers and Longhurst (2016) in particular seek to move away from, what they refer to as 'residual realist' (see also Chilvers and Kearnes 2016) notions of participation, which sees participation as single one-off events, based on pre-given normative notions of what constitutes good deliberation (e.g. Habermas 1984). Adopting a 'constructivist and relational STS perspective', Chilvers and Longhurst (2016) focus on how materiality enables a consideration of how participation is emergent and co-produced. Both Davies *et al.* (2012) and Smith and Stirling (2016) have focused on how a materiality perspective can 'open up' access and participation: moving beyond spoken word and persuasive arguments enables participation of those who may prefer to contribute through actions rather than debates or discussions.

A greater focus on the materiality of energy can thus help further understanding of how participation is constructed, performed, and its effects. Philosopher of technology Andrew Feenberg (1999) argues that the development of technologies constitutes societies in similar ways to legislation in political systems. It is, however, important to consider the kinds of society embedded in our technologies, while avoid slipping into technological determinism. As Smith and Stirling (2016, p.6) remind us: 'technological determinations are as much socially constructed as they are materially experienced'.

The approach advocated by Smith and Stirling (2016) as well as Marres and Lezaun (2011) is one that stands in contrast to (dominant) Foucauldian perspectives,

which have often treated matter as a tacit, *constituting* force in the fabrication of political *subjects* (Marres and Lezaun 2011, p.491 - emphasis in original). Instead, a greater focus on the material properties of energy can enable us not only to look at how materials can be deployed to enact participation as a practice in a particular setting (such as energy saving behaviour), but also enables a deeper look at how things acquire the capacities to organise publics in such a way. In other words, it enables a consideration of how participatory objects are made (Marres and Lezaun 2011, Marres 2012).

The question that arises then is who controls these processes (Smith and Stirling 2016)? A central premise of the literature on energy democracy is that the material features of energy technologies can reflect different visions. Renewable energies, due to their decentralised nature, are deemed particularly appropriate for facilitating the energy democracy ideals of a greater dispersion of both control and benefits (Weinrub 2014, Weinrub and Giancattarino 2015). Nonetheless, as Weinrub (2014) notes, renewable energy can also reflect different visions, such as utility or community-oriented ones. Additionally, Bulkeley *et al.* (2014) have shown that new technologies are often spatialised by prevailing dominant logics and power imbalances.

A more democratic energy system with more distributed renewable generation should therefore not be seen as inherently characteristic of the transition to renewable energy (Calvert 2015). Much depends on which assumptions are inscribed into the sociotechnical process and how roles are delegated to groups and technologies that put the overall sociotechnical configuration to work (Latour 2005 in Smith and Stirling 2016). The ways in which this configuration process of participatory objects is contested can thus be seen as forming the basis for democratising innovation (Smith and Stirling 2016).

To summarise, democratic theories discussed in the previous section often limited participation to deliberative forums of one kind or another. A focus on materiality,

in contrast, raises the question of how participation is connected to the socio-material relations of everyday life. It encourages to ask not only how materials are a latent constitutive force in the formation of subjects, spaces, and issues of democracy, but also how participatory democracy is enacted through work *in* and *on* material objects (Marres and Lezaun 2011). Considering not only ‘the material constitution of the subjects, spaces and issues of democracy’ (Marres and Lezaun 2011, p.496) but also how participatory objects are made and contested is thus an exciting area for further investigation whilst avoiding slipping into technological determinism.

2.5 Why - Why energy democracy? Energy democracy as process or outcome

The energy democracy movement is a response to the current energy regime in many Western countries: one where energy production and distribution is centralised and privatised, and where access to, and benefits from, energy are distributed unequally. There is, however, a lack of clarity about the aims in the energy democracy literature: is energy democracy the outcome or the process? Is it ‘a future utopia to be’ won or ‘an ongoing series of multiple struggles over who owns and controls energy and how, where and for whom energy is produced and consumed’ (Angel 2016b, p.4)? A number of reports on energy democracy appear to ascribe to the first view: in both the US (Farrell 2014) and Europe (Vansintjan 2015) energy democracy has been framed as an end-state to move towards, as ‘the answer’ (Farrell 2014, p.43). Framed this way, energy democracy represents a blueprint for an ideal world where energy systems are more decentralised and socially controlled (Chavez 2015, Pearl-Martinez and Stephens 2016), access is equitable and benefits dispersed (Farrell 2014), and energy consumption and production harms neither people or environment (Klimacamp Lausitzcamp 2012, Weinrub and Giancattarino 2015). Within these visions we can thus see hints of the

work of Durkheim described earlier, where democracy is not just seen as a type of political system, but as a type of society in which we wish to live (Royce 2015).

These examples show that, while framing energy democracy as an ideal end-state, they combine a procedural and outcome dimension, where particular (decentralised) forms of energy governance contribute to more equitable outcomes (e.g. energy access and security). This combination of process and outcome is also evident in other literature on resource democracies. For example, Shiva (2006) conceptualises water democracy as a process of both a deepening of democracy and a defence of genuinely democratic structures, in order to achieve a more equitable distribution of resources. Thus, participation in democratic governance of resources is seen as a means of placing power in the hands of ordinary citizens, enabling them to break down entrenched inequalities (also see Walker *et al.* 2015, p.7). Viewed this way, democracy can be seen as both an element and a condition of social justice.

There is, however, a second view which does not simply show energy democracy as a future utopia. (Angel 2016b, p.4) has argued that it is also an ongoing struggle, or series of struggles, over 'who owns and controls energy and how, where and for whom energy is produced and consumed'. This, perhaps more radical, view of energy democracy has also been espoused by Morris and Jungjohann (2016) who have argued that energy democracy involves people taking charge and generating their own energy even when this damages the interests of incumbent actors. Thus, for democracy to have any practical progressive meaning it should enable 'access by the least powerful people and communities to the capacities for challenging the directions of the innovations that affect them' (Smith and Stirling 2016, p.9). According to this view, for democracy to have any practical progressive meaning, it must be viewed as a process of reshaping social relations rather than achieving particular categories of outcomes (Smith and Stirling 2016).

This is not to say that these two views of energy democracy are not related. What shines through in some accounts of energy democracy is the vision that democratic participation is thought to promote solidarity by enabling those who participate to recognise and act for the collective good (Walker *et al.* 2015). This view of democracy being about reshaping of social relations also brings us back to the view of democracy introduced earlier, where it was argued that ‘democracy’ is not solely as a political system but as a particular way of shaping society. This notion of participation benefiting the collective or public good is one that is central to energy democracy. For example for Cumbers *et al.* (2013) and Angel (2016a) energy democracy is based on having a participator energy system that works in the public interest, whilst Powell (2016) argues for the need to restore public purpose. In order to ensure an energy system that provides more equitable outcomes Cumbers *et al.* (2013) have argued that a more cooperative and consensual approach to the development of energy strategies is required.

The connection between participatory democratic processes and just outcomes, is, however, contested. The suggestion that cooperation and consensus in democratic decision-making helps to achieve outcomes that benefit the public good, are grounded in some of the ideals proposed by deliberative democratic theorists drawing on Habermas (1984)’s idea of communicative ethics (Young 1990). According to this view, substantively just outcomes are most likely achieved if all those affected by the decisions have been able to participate in the free expression of all needs and points of view. Young (1990, 1996, 2000) and others have, however, also critiqued this (assumed) connection between democratic process and benefits for the ‘common good’. In particular, she argues that most theories of deliberative democracy offer too narrow a view of the democratic process because they privilege an ideal of a common good in which each participant is supposed to leave behind their different interests and experiences. As a result, it has been questioned whether a focus on shared interests and solidarity has the potential to obscure questions of justice (Walker *et al.* 2015). Particularly, it has been

questioned whether inequality of resources, organisation and power may enable some interests to dominate in the definition of a 'common good' (Young 1990, Walker *et al.* 2015).

Whilst the concept of energy democracy offers a common language for diverse groups to rally around, there are also differences in focus. It therefore remains important to question whose interpretations and approaches to energy democracy are heard and validated. Whereas some (e.g. Weinrub 2014, Trade Unions for Energy Democracy 2015, Angel 2016b) consider 'unionised and well-paid jobs' as a key component of energy democracy, Giancattarino (2012) focuses particularly on the opportunities and benefits for people of colour, and Powell's (2016) piece appeared on the Green Conservatives website, an environmentally-inclined arm of the British Conservative party who advocate for market-based, cost-effective solutions to support sustainable, long-term economic growth. Whilst different actors thus share certain interests, it is not necessarily guaranteed that their ultimate aims or approaches to achieve them are aligned. When individuals or groups have conflicting interests and differ in power, greater participation can also result in unjust and oppressive outcomes (Young 1990).

These potentially divergent visions of how to achieve the 'future utopia' are currently not very well acknowledged in the energy democracy literature. For example, by arguing that energy democracy is about creating informed communities who understand the 'right relationship of people to natural resources' (Weinrub and Giancattarino 2015), a normative dimension is introduced which presupposes agreement on what this 'right relationship' is. Here, claims are made by linking evidence of conditions of inequality with normative positions on what is 'right' or 'just' (Walker 2014).

Various (feminist) political theorists have sought to tackle the issue of how to acknowledge different and locally-situated experiences and interests, while seeking to achieve more just outcomes (e.g. Benhabib 1996, Young 1996, Schlosberg 1999,

Mouffe 2000). For example, Young (1996) has proposed a theory of communicative democracy, which sees the democratic qualities of civil society as much rooted in protest and contestation as in cooperation and civiness (Mouffe 2000, Taylor 2011, Anderson *et al.* 2016). Mouffe (2000, 2005) has advocated for an ‘agonistic pluralism’ that recognises and validates dissent and debate rather than seeing this as something to be overcome or stifled. This is not to say that there should be no attempt at finding common ground, but this should not be reached out of convenience or under pressure. Rather, through communicative processes participants can negotiate dissent by transcending and transforming their initial situated knowledges (Young 1996).

This creates new questions for both the energy democracy movement and for researchers. To what extent are, or can, these ideals of valuing lived experiences be reconciled with normative assumptions of just outcomes, in practice? And how does the materiality of energy and non-discursive means of participation (as discussed in the previous section) affect these theories proposed here? A more nuanced analysis regarding how different kinds of equality are related to different kinds of participation in different settings could thus be a valuable contribution (Walker *et al.* 2015).

To summarise, the energy democracy movement largely considers democracy a means to achieve more just outcomes. However, this link between process and outcome is not clear. The construction of a ‘future utopia’ is a power-laden process, in which it should be asked whose definition of the ‘common good’ is accepted. As the energy democracy movement is diverse in its framings, it is also important to consider how it can be participatory and value situated knowledges whilst also furthering its cause(s).

2.6 Who - From individual participation to active communities

The previous sections have shown how the energy democracy movement envisages the move to a more democratic or just energy system to be led primarily by civil society groups. By placing groups rather than individuals at the heart of this vision, the energy democracy movement furthers the idea of energy citizenship (Devine-Wright 2007). It, however, also raises further questions about the role of civil society groups, both in relation to their individual members and in relation to the state. This section will first discuss the concept of energy citizenship and its relation to energy democracy before considering different approaches to theorising the changing relations between 'active citizens' and the state.

Both energy citizenship and energy democracy seek to theorise public participation through material engagement. The questions of citizenship is particularly important for democracy, as the legitimacy of democratic governance depends on the extent to which democratic structures and practices are recognised and supported by citizens (Biesta 2009). Citizenship is a concept that is difficult to pin down, however, because it is derived from different political, cultural and legal traditions (Perczynski 2000). The oldest, classical interpretation of active citizenship emphasises the double function of citizenship: governing and being governed (Perczynski 2000). The links between participation and citizenship are most clearly expressed within civic republican theories of citizenship (Mohan and Hickey 2004), which considers citizens as playing an active role in shaping their society through debate and decision-making (Miller 1995 in Mohan and Hickey 2004). It thus sees citizenship as something that can be claimed rather than something to be conferred 'from above' (Mohan and Hickey 2004).

In recent years, discourses on citizenship have shifted from citizens' rights to corresponding duties and responsibilities, and promoting the notion of 'active citizenship' (Biesta 2009). The key component of active citizenship is that of participation (Biesta 2009). This idea of citizenship as based in practice rather than

a set of legal obligations and entitlements is at the roots of the energy citizenship concept. Drawing on research from the field of environmental citizenship, Devine-Wright (2007, p.71) sees energy citizens as active participants rather than passive stakeholders in the energy system, who ‘... can feel positive and excited about new energy technologies rather than apathetic and disinterested; [...] and [who are] willing to engage not just as individuals but as collectives in shaping technological change [...]’.

Drawing explicitly on a materiality perspective, Marres and Lezaun (2011) and Marres (2012) have offered a valuable contribution that deepens the theoretical foundations of energy citizenship. Of particular relevance is Marres’s (2012) argument that public participation through material engagement can help revive democracy by including new actors and practices of engagement. It thus focuses on the material dimensions of participation, drawing on phenomenological philosophical traditions to define citizenship not in abstract terms, or in terms of communicative action, but as an embodied activity that takes place in a particular location, using specific technologies or objects (Marres 2012).

Viewing energy citizenship as an embodied activity, however, also erases the fundamental distinction between the public and the private sphere (Marres and Lezaun 2011). Whereas both Devine-Wright (2007) and those in the energy democracy movement appear to advocate for greater engagement with matter, this counters classical views of citizenship (e.g. Aristotle) who argued that citizenship was to be denied to those who were ‘too much involved in the world of things’ (Pocock 1998 in Marres and Lezaun 2011, p.491). This therefore signifies a redrawing of the private/public boundary through which the meaning of citizenship is redefined.

While most in the energy democracy literature advocate for greater active energy citizenship, both feminist (Young 1990) and Foucauldian perspectives (Marinetti 2003) provide a more critical perspective. For example, feminist writers have

warned against notions of citizenship that can only be fulfilled by subsets of the population (Mohan and Hickey 2004). When individualised responses to environmental problems are favoured, Faber and McCarthy (2003) warn, this risks enabling the 'haves' to more easily disregard the needs of the 'have nots'. This is highly relevant to energy, as it has been documented that participation in 'desirable' energy activities is influenced by social and economic factors, including gender (Fraune 2015), economic status (Walker 2008b, Bauwens and Eyre 2017) and home ownership (Rogers *et al.* 2008). Others have drawn on Foucauldian governmentality theory to understand how people are constituted, and constitute themselves, as moral subjects (Marinetto 2003, Bridge 2011, Kumpulainen 2016). For example, Wolf *et al* (2009 in Bridge 2011, p.828) have found that acting as a responsible citizen is now 'one of the most important features ... of responses to climate change'. Bridge (2011) argues that this is premised on facilitative types of power, where the state empowers citizens to do certain things but not others, and in the process reproduce the state's institutions and structures into the domestic or community sphere.

2.6.1 From individual to collective action

Active citizenship is often defined as participation in associational life, and is explicitly not restricted to political dimensions (Biesta 2009). It is through the explicit focus on collective participation that energy democracy furthers the promotion of citizenship as a desirable goal (e.g. Devine-Wright 2007). As is evident from the literature on energy democracy introduced earlier in this article, as well as Devine-Wright (2007)'s work on energy citizenship, proponents for 'active citizenship' often emphasise the role of communities and community organisations (Rose 2000, Kumpulainen 2016).

For proponents of communitarian approaches this focus on collective action shows a desire to not only create active citizens but also re-awaken community spirit and

civil society. In other words, the question becomes how participants can project their agency beyond a specific intervention and into civil society more broadly (Mohan and Hickey 2004). It is the function of civic education that links notions of individual citizenship with the broader arena of societal democracy (Perczynski 2000). This view builds on Tocqueville's idea of associations as Schools of Democracy – which considers civil society associations as a particular type of school where their members can learn how democratic norms work in practice (Perczynski 2000).

This function of civic education can, however, also be seen as a tool of governance. Whilst those advocating for greater energy democracy likely promote community action with the best intentions, (neo-)Foucauldians argue that community action becomes a tool of governance: governing through community (Rose 1996). By seeing such groups as moral textures that educate citizens to behave in the 'correct way', they could be considered as effective instruments of governing without restricting personal freedoms through legislation. For those governing, community action blends the best aspects of liberal conceptions of citizenship (liberty and opportunity) and communitarian ones (emphasising the public good) (Mouffe 1992). There is a risk, however, that community groups will be seen as little more than technical device for delivering active citizens within a prescribed field, who, having glimpsed the government's vision, opt into it with enthusiasm (Dinham 2005). In addition, a focus on communal action also raises further questions about the blurring of the public/private boundary. In particular, Mouffe (1992) has argued that the emphasis on communal action to encourage particular personal rights and responsibilities in order to advance the public good, risks taking us back to a pre-modern view of politics which seeks to organise people around a single, substantive idea of the common good.

While the focus of the energy democracy literature largely remains on the role of community-led organisations, there are indications that the non-state orientation

of the energy democracy agenda has begun to shift (Angel 2016a). Whilst there is a continued focus on decentralisation, there is also a growing recognition among practitioners that civil society action alone is not sufficient, and amongst researchers that there is a need to continue to theorise changing state-civil society relations in energy research (Angel 2017). A Foucauldian perspective could therefore be particularly useful for distinguishing between ‘popular spaces’ (i.e. those defined by community energy organisations themselves) versus ‘invited spaces’ (i.e. created and defined by government) (Cornwall 2004, McAreavey 2009). A further strand of research would be to look at the issue of deliberation, and to ask whether and how processes of deliberation seek to bring about forms of self-governing ‘responsibilised’ individuals (Hobson 2013, p.65). A third strand drawing on (neo)-Foucauldian perspectives would be to look at the material dimension of participation and governance: how do objects obtain explicit political capacities and how do these, in turn, ‘enact distinctive ideals of citizenship and participation’ (Marres and Lezaun 2011, p.491)?

It is, however, questionable if the energy democracy movement recognises itself in this Foucauldian conceptualisation of communities. The roots of energy democracy are in activism, and the role energy democracy activists envisage for community energy organisations is as bottom-up entities (which are perhaps antagonistic to the state) rather than as entities which are governed by and through the state. Nonetheless, even when viewed as antagonistic, there are further questions to be asked about the relation between community groups and the state. Other useful perspectives to do so would be neo-Marxist or neo-Gramscian approaches.

Proponents of these theoretical approaches tend to disagree with the non-state conceptualisation of the cooperative social movements (Angel 2017). They have warned that the decentralisation favoured by social movements plays into the hand of neoliberalisation (e.g. Harvey 2012). As such, they see localism as a product of neoliberal national state-restructuring where active citizens are responsible for

previously collectively-provided services (DeFilippis *et al.* 2006, Biesta 2009). Returning to an earlier argument, neo-Marxists argue that even when carried out with the best intentions, much public participation is shaped by socioeconomic inequality (Walker *et al.* 2015), and the state should play a central coordinating and redistributive role. This thinking has also started to become evident in some of the energy democracy literature. Some critics of state ownership have argued that central control of energy resources cannot be aligned with ideals of climate justice (Weinrub 2014). There is however, a growing part of the energy democracy movement that has argued that the state does have a role to play. For example, Chavez (2015) has argued that energy democracy is also about renationalisation and remunicipalisation, as long as accompanied by greater public participation.

While neo-Foucauldians thus tend to see the support for community driven development therefore as an indication of the state governing through communities, neo-Marxists tend to view it as the fragmentation of socio-economic problems. There are however 'hidden parallels' between neo-Gramscian and Foucauldian approaches as Angel (2017) has shown (see also Jessop 1990, MacKinnon 2000). Through an analysis of how the energy democracy movement in Berlin has worked 'In-Against-and-Beyond the State', Angel's (2017) recent article has been a particularly useful contribution to the energy democracy literature. Integrating these approaches can help to tease out how individuals (re)constitute institutions and (re)make rules through processes of both conflict and cooperation, and conversely how these rules and institutions shape individual actions (Hickey and Mohan 2004, DeFilippis *et al.* 2006).

Such an approach can thus help show the neoliberal state in a more nuanced light, but 'community' as well. As it assumes neither a uniformity of political orientation of a homogenous state nor a uniformity of political orientation of community organisations, it allows us to read for difference, and therefore potentially address

the issue introduced in the previous section: how different kinds of equality are related to different kinds of participation in different settings.

To summarise, central to the ideas of energy citizenship and energy democracy is that of the 'active citizen', where citizenship is obtained through practice rather than derived from a set of legal rights or responsibilities. Feminist and Foucauldian approaches can provide critical insights into who benefits from this interpretation of citizenship. Central to energy democracy is the idea of citizenship enacted through communal action, in turn promoting or legitimising particular (associational) forms of energy governance. This, however, raises further questions about the role of such associational forms of governance in relation to the state. Both neo-Foucauldian and neo-Marxist approaches can be helpful to further theorise these changing relations between individuals, communities and state.

2.7 Where – In what places and at what scale can energy democracy be achieved?

The final theme I discuss are the spatial and scalar dimensions of energy democracy. Both in energy research as well as in political theory, the modern territorial state has often been deemed the appropriate unit of analysis. There is however a growing recognition for the spatial frameworks of (energy) citizenship and democracy, addressing not only the 'what' of democracy, but also the 'who' and 'where'.

The earlier discussed material perspective - particularly the work of Noortje Marres, (Marres and Lezaun 2011, Marres 2012) - has encouraged a greater focus on practices of citizenship at home or in the workplace. Others coming from a more explicit (environmental) justice angle have particularly focused on the challenges of globalisation for the construction of a citizenship beyond the state (e.g. Dobson 2003, Fraser 2008). The energy democracy movement has primarily focused on local actions and grounded its claims in local concerns. At the same time, however,

there is evidence that the movement is also transnational in scope, through actors forging links across national boundaries. In light of this, there is a case for examining how claims and practices of energy democracy at different scales relate to one another.

Whilst energy geographers have emphasised the cross-scalar nature of socio-technical energy networks (Calvert 2015), it is notable that the default location and scale of action and analysis in the early energy democracy literature was often the local, perceived as both a geographical scale and a set of social relations. For example, for Farrell (2014) 'local' is one key defining dimension that sets energy democracy apart from 'normal' energy transitions. Cumbers *et al.* (2013) similarly identify the need to localise ownership and decision-making as a priority for achieving greater energy democracy. It is in these literatures often presumed that localising ownership will create a fairer distribution of benefits. This also means, however, that 'local' and 'community' are often used as unproblematic categories (Hickey and Mohan 2004). Or, in geographical terms, as spaces which act as containers for particular, desirable, sets of social relations.

Rather than seeing particular scales as natural, work on the social construction of scale has emphasised the ways in which spatiality is constituted through and with social-material relations (Swyngedouw and Heynen 2004, Murdoch 2006, Bulkeley *et al.* 2014). Energy, conceived as both physical flows and as social demands, produces particular socio-spatial relations and can thus be seen as acts of place-making (Calvert 2015). A relational perspective also enables us to consider resource-making activities as fundamentally matters of territorialisation – expressions of social power in geographical form (Bridge 2011). Viewed this way, the emphasis on the 'local' from the energy democracy movement can be seen as an act of boundary ma(r)king, through which the criteria for belonging ('energy citizens'), and thus the subjects of claims for justice (Fraser 2008) are negotiated in order to determine the allocation of resources (Calvert 2015).

In addition to the process of territorialisation, there is also a second key geographical dimension: how different spaces, at potentially different scales, relate to one another. Calvert argues that it is therefore intuitive that changing patterns of energy production and use co-constitute broader social and geographical change (also Bridge *et al.* 2013, Calvert 2015). In the energy democracy literature there has been a growing awareness of scalar issues. This has been particularly framed as a need to move beyond the local scale, and engage with actors beyond the local in order to develop regional and national-scale energy democracy experiments (Angel 2016b). What is unclear is how the desired democratic processes and outcomes are altered through this process. Relational perspectives can help ask how social-material relations affect and are affected by operating at these different scales.

One reason for the growing awareness of issues of scale in the energy democracy literature is the recognition that local electricity generation may not be sufficient for achieving either radical socio-economic or environmental change. Currently, many local energy groups focus on generating electricity locally. However, electricity use is often only one small part of total energy use. For example, electricity consumption is responsible for 24% of final energy consumption in the UK, 22% in Denmark, and 27% in Germany (EREC 2011).

This shows that, in order to achieve a cleaner energy system, there is a general need for whole system change, which raises the question what role local action can play in both creating change beyond the *local level* and beyond the *electricity sector*. While active energy citizenship in the home or community may alter energy infrastructure and governance in some ways, it does not necessarily alter other aspects. Local projects do not act in isolation, but, are always embedded in global economies and material flows. Finance and materials may (not) be local, and the flow of energy (e.g. grid connection) is possibly also not local. Whilst there is some recognition in the energy democracy literature for how energy-related activities can, or should be, distributed across a particular space, there has been less

attention for a second geographical dimension: the connections and interactions between that space and others (also see Bridge *et al.* 2013). As Karen Bakker has argued in her work on water democracy:

'Improving governance through involving consumers in decision-making can improve transparency and accountability, but can rarely deal effectively with issues of financing, access, and operational management.' (2008, p.246)

In other words, to achieve radical change, greater engagement with the multi-scalar dimensions of energy is also needed. While the focus on the 'local' can thus be seen as a project of territorialisation or boundary marking, this also raises further questions around how these new energy spaces relate to other spaces and different scales.

Scalar questions are also particularly relevant to the democracy-dimension of energy democracy. I identified earlier in this section that the focus on 'local' action can be seen as an act of territorialisation, through which citizens and thus claims for justice are defined. The second geographical dimension discussed above – the relation between multiple, and sometimes, overlapping and contradictory political territories – is also highly relevant to questions as democracy, but has been little discussed thus far in the energy democracy literature.

Davies *et al.* (2012) suggest, the work of John Parkinson on democratic public spaces, may serve as a helpful starting point for theorising how democracy can be deepened beyond the local scale. Parkinson (2006) argues, that a society-wide rather than a localist approach to deepening democracy is required, where legitimacy is created across multiple moments in a wider deliberative system. Angel (2016b), writing as a scholar-activist on energy democracy, has begun to look at this issue by drawing on the work of Timothy Mitchell. Whilst arguing for the need for society-wide change, Angel (2016b) concludes that thinking about (energy) democracy as a pre-designed set of principles and structures, to be

replicated from place-to-place is not necessarily the way forward: local particularity means what works in one place is not guaranteed to work somewhere else. While Angel (2016b) thus recognising the plurality of visions and experiences within the energy democracy movement, this debate is expected to have another dimension as different spaces and scales for energy democracy interact. As use of the concept spreads, claims for greater energy democracy are likely to run up against counter claims, whose ontological assumptions about the meanings of democracy and justice they do not necessarily share (Fraser 2008).

An interesting case is Trade Unions for Energy Democracy. This international movement for greater local control of the means of energy generation and distribution, show that claims for, and practices of, energy democracy are multi-scalar. It is, however, currently not clear how local particularity and thus potentially competing claims for democracy at different scales may be resolved. This possible complication over the mapping of political space further complicates the question of whose interests ought to count and how do we determine which scale or map of political space can lead to more just outcomes (Fraser 2008)? Thus, there is a struggle here between two potentially different ontological positions: does energy democracy stand for a 'moral universalism' (Mason 1999, p.1) or for the lived experiences of diverse and different actors on the ground?

Drawing on McKee (2009) and Hobson (2013, p.61) I suggest that a 'realist governmentality' approach would be appropriate to explore the 'mismatch and elision between "top-down universalistic plans" and the empirical reality as experienced'. This enables exploration not only of how energy innovations *might* contribute towards enhancing processes of democracy, but especially the nature and degrees of democracy that are *actually realised* within the processes of energy innovations (also see Smith and Stirling 2016). Such a perspective could offer an in-depth exploration of how rules operate and specific interventions play out in actuality.

To summarise, questions of space and scale are highly relevant to thinking about energy democracy both in terms of territorialisation as well as in the (re)shaping of relations between different spaces and scales. There are numerous calls for ‘upscaling’ local energy technologies in order to spread better end-products (e.g. more diverse, but connected, cleaner, efficient technologies), but also to spread the social vision and relations embedded in these processes and their outcomes (Smith and Stirling 2016). Through this process, however, different claims for democracy and justice may run up against counter claims. How these claims are constituted by, and potentially re-constitute, social-spatial relations in the process is a further area for further investigation.

2.8 Discussion; future research on energy democracy?

2.8.1 Energy democracy as associative democracy

This review has shown that despite the diversity in the literature on energy democracy, the visions in the literature are largely those of associative democracy. At its heart, the energy democracy movement to date has been seeking to change the socio-economic relations embedded in the energy systems by encouraging greater public involvement and control. The movement primarily advocates for this to be achieved through community ownership of the means of electricity generation and distribution. As such, the movement draws heavily on associational forms of democracy, where civil society groups are seen as a ‘third way’, a push back against current, dominant, privatised energy systems, but also preferable to centralised and top-down state ownership. Whilst other popular democratic criteria like representation, deliberation and participation are not unimportant to energy democracy activists, their drive sounds remarkably similar to how Hirst (1994, p.15) describes Associationalism in the 19th century; *it developed as an alternative to both liberal individualism and socialist collectivism, and as a criticism of state centralization and the growth of bureaucracy*. Consistent with the attention

of associative democracy for voluntarism and decentralised political and economic power, but expressed through the inevitably somewhat narrow material lens of our electricity system, the vision of the 'energy democracy' movement could be characterised as follows:

- The electricity system, as well as our economy and society should become more inclusive, equitable and low carbon
- There should be more devolution of political power and decision-making to the local level;
- Access to the electricity grid should be widened, especially for new and small renewable electricity producers (typically as a push back against state/privatized monopoly power);
- The ownership base for various aspects of our electricity system should be broadened (typically a push back against the dominance of big [corporate] utilities)
- Greater citizen involvement and ownership can be achieved through voluntary means; cooperation and local self-organisation are important.
- These characteristics thus show that energy democracy clearly constructs energy as a socio-material concept, connecting particular (associative) ways of organisation, with the materiality of renewable energy.

2.8.2 The materiality of energy

This study has also revealed that the materiality of energy is a recurring theme that adds an extra dimension to political theory debates around democratic governance. The emergence of energy democracy is part of a broader trend in both research and practice which has sought to foreground the 'stuff' of politics (Braun and Whatmore 2010) and raise the question: how do material objects, and our relations with them, constitute particular forms of social and political life?

Energy democracy has a number of similarities with other material democracies. Primarily, much of the Energy Democracy literature is concerned with countering what it perceives to be the increasingly commodified, individualised and consumption-based society proposed by contemporary 'property-owning democracy' advocates. Instead, the literatures consider democracy as both the means and outcome of resource decommodification (Bakker 2007), with collective, decentralised control seen as central to reshaping socio-material relations. These new, material, arenas for democracy, should thus be seen as a response to the ongoing process of neoliberalisation which has been central to shaping socio-material relations in recent decades (Bakker 2007, Himley 2008, Harvey 2012, Kaup 2014). However, energy democracy also has characteristics that set it aside from other material democracies. Particularly, the emergence of the energy democracy movement in countries that for generations have had (near) universal provision through a national grid; a physical manifestation of the modernist state that was seen to be reaching out across the entire territory and charging every household the same service for the same unit price. National grid history will invariably be shaping specific expectations of the energy democracy movement, which will be different from those advocating for, for example, greater water democracy in the Global South (see for example Shiva 2006, Bakker 2007, 2008).

There are, however, also different expectations and practices between energy democracy activists within the Global North. For example, those writing in a German context where the 'Energie Wende' is pursued by the federal government – are more likely to see energy democracy as a transition pathway that is already in (some) progress. Some US activists (e.g. those advocating for solar democracy) embrace the notion of free enterprise at the individual level whilst pushing back against any notion that resources belong to the state (Hockett 2005, Singer 2006, Field 2015). As a third example, the Scottish context for community energy is characterised by (1) devolution of central (UK) state power, with (some) practitioners linking their quest for greater independence at community level with

other political struggles, such as greater political independence (van Veelen and Haggett 2016); and (2) the context of land reform which has enabled rural communities to buy the land on which they live (see also Chapter Four).

The materiality of energy also raises questions around conceiving participation not solely in deliberative forms and the impact of material forms of participation on the changing boundaries between the public and private sphere. This has a number of consequences in terms of how boundaries of participation (by citizens) and justice are marked, who 'belongs' and how different, and sometimes contradictory political territories and scales (and the social relations embedded in them) relate to one another. Energy democracy thus implies a particular form of energy citizenship that is expressed through the leveraging of personal finance, material assets (e.g. roof of your house) and time (committing manual and organizational labour). The justice implications may relate directly to questions of inclusivity (e.g. who can participate, who can benefit) and more indirectly to potential scalar effects over time (e.g. risk of poorer energy service or higher bills for those who are excluded in areas of high participation).

The above discussion has highlighted a number of directions for further research. These do not necessarily share a common ontological, epistemological or methodological foundation so there is some likelihood that this diversity will feed a confusing 'hodgepodge of approaches' (Calvert 2015) in future research. Research interest in energy democracy as a social movement implies a continued attention for the forms and nature of democracy, citizenship and justice inherent in observable visions and activities. Based on this analysis of the literature to date, I can add some specific avenues for further social science research:

- Can normative and universalist claims or interpretations of 'energy democracy' be aligned with interpretations which consider it as an emergent and co-constructed (local and contextual) phenomenon?

- How do non-discursive forms of material engagement with energy, and particularly the associated blurring of the private/public sphere, affect the ways in which we conceive of democracy?
- How can it be ensured that the growing focus on active energy citizens or communities is empowering rather than disempowering?
- How does renewable energy as a spatially unevenly dispersed and fugitive resource, captured and transmitted instantaneously through an international web of copper wires, affect territorial theorisations of democracy?
- Considering the concept's primary activity roots: (how) can practitioners and academics collaborate around and develop this concept?

This wide-ranging research agenda consists of suggestions for further research deemed most relevant to the readership of *Energy Research and Social Science*, where this chapter has been submitted as a paper. The next section will explain in more detail how the preceding discussion has informed my research more specifically.

2.9 Epilogue

This chapter has set out several approaches, often with different theoretical, ontological and methodological foundations to study the emerging concept of energy democracy. I focus in this thesis primarily on the link between democracy and governance, in order to understand how community energy is governed, and what the implications are for the democratic claims made for this form of energy governance. This thus draws particularly on the ideas discussed in Sections 3 (*What does 'democracy' in energy democracy look like?*), 6.1 (*From individual to collective participation*) and 7 (*In what places and at what scale can energy democracy be achieved*) in order to understand both internal processes of community energy governance and how these relate to other scales of governance.

This subsequent analysis is informed by what Klinke (2016) calls empirical-analytical theories of democracy, in order to understand the connection between top-down plans and the messy empirical reality, as experienced (McKee 2009, Hobson 2013). Such an empirical-analytical approach stands in contrast to the normative strand of democratic theory. The latter focusses on setting out why democracy is desirable and which principles should shape democratic institutions. In contrast, empirical-analytical approaches (and thus this thesis) are primarily concerned with how democracy is enacted in practice by focusing on issues of pluralism, negotiation and interest intermediation (Klinke 2016), topics that will be explored in Chapters Four to Six. Thus, when considering some key themes in democratic debates, such as inclusion and fairness, the empirical-analytical approach adopted here focuses specifically on how these are operationalised by actors and the possibly tensions emerging from this.

As set out in Section 7, such an approach enables me to explore not only how energy innovations *might* contribute towards enhancing processes of democracy, but especially the nature and degrees of democracy that are *actually realised* within the processes of energy innovations. By doing so, it builds on a growing body of research in human geography which explores the emergence of alternative democratic practices that are assumed to lie ‘in the fractures and margins of liberal-representative polities’ (Barnett and Bridge 2013, p.1023). While much energy democracy research to date has focused on exploring the *potential* for the emergence of more *radical* democratic practices (Barnett and Bridge 2013 - emphasis is mine), this thesis not only focuses on realisation rather than potential, but also questions the radical nature of these alternatives. It thus seeks to challenge the notion that community governance is inherently different or more democratic than other forms of governance. Instead, I seek to focus on the practices of community governance that are currently enacted, and the ways in which these shape, and are shaped by, governance at other scales.

Thus, to summarise, this chapter has presented a number of possible directions for research on energy democracy, building on previous energy and political science research. The empirical chapters in this thesis are grounded in an empirical-analytical approach to democratic theory, aimed at understanding how democratic community energy governance is shaped and enacted in practice. Before presenting my findings, I will explain in the next chapter how an interdisciplinary, mixed methods, approach has helped me to undertake this research.

3 Methodology

This chapter provides an overview of my use of mixed qualitative and quantitative methods to researching community energy governance in Scotland, particularly the participatory spaces created *by* and *for* community groups, *at* and *beyond* the community-scale. It follows on from my argument in the previous chapters that literature to date has often focused on processes aimed at changing our *energy* systems, with less attention paid to the question of how such changes affect, and are affected by, the social relations embedded in these systems.

The three subsequent chapters, which have been submitted as papers for publication, each contain brief descriptions about the methods used for each specific chapter. In this chapter I contextualize these choices and provide an explanation for why certain methodological decisions were made, and how these fit within the context of this broader thesis. In my research, I have adopted a mixed methods approach, first using quantitative methods to develop a typology of the Scottish community energy sector, followed by qualitative interviews with community energy groups and other stakeholders to understand the origins and implications of this typology. Here, I justify the choice for this approach and how my research methods have evolved throughout the research process.

3.1 Research design and methodology – using mixed methods

3.1.1 *Methodology: Connecting theory and practice*

Traditionally, one of the key rationales that underlie a choice of method is a researcher's philosophical assumptions, as adoption of a particular epistemological position influences what kind of knowledge is sought and the ways in which that knowledge is obtained (Brannen 2005, Bryman 2012). The previous chapter introduced a number of current and possible future directions for social energy

research. For me, of particular interest in discussions around (energy) democracy is the interaction between social structures, processes, and their implications. Questions around the issue of normativity have particularly challenged me: is there, or should there be, a universal interpretation of what it means to “be democratic”, or is the notion of democracy, as Young (1990, p.5) writes about justice, ‘always situated in concrete social and political practices’?

At the heart of this question about the nature of democracy are competing paradigms of positivism and interpretivism. The idea that society can be studied and explained objectively, through universal laws and rational logic (i.e. a ‘positivist’ paradigm), was first suggested in the mid-19th century and remained popular for at least a century (Kitchin 2006, Babbie 2007). During the second half of the 20th century, criticism of this positivist paradigm steadily grew: Marxist theorists criticised positivism for its lack of a normative function and consideration of the complexity of individuals and society (Harvey 1973, Kitchin 2006), while post-modernists have criticised positivism’s assumption that there is an objective reality, a ‘true’ and ‘natural’ state of the world independent of personal perceptions (Babbie 2007). Thus, interpretivism, based on a constructivist epistemology and underpinned by the idea that people make sense of the world around them through the knowledge they have inherited and learned as a result of their participation in society (Denzin 1997) gained in popularity in the late 20th century.

Traditionally, the two paradigms of positivism and interpretivism are associated with different research methods: positivism is associated with quantitative methods and interpretivism with a qualitative approach. A key debate in the mixed methods literature therefore focuses on whether specific methods are inherently connected to certain epistemological and ontological positions (e.g. Philip 1998, Brannen 2005, Irwin 2006, Bryman 2012). Due to the fundamentally different assumptions inherent in these two paradigms, it has been questioned whether different methodological approaches can be mixed.

In 1970 Kuhn proposed that paradigms are incommensurable, i.e. that they have no common language or assumptions. From this, the idea emerged that different methodological approaches are intrinsically different, underpinned by different philosophical assumptions (Feyerabend 1978, Brannen 2004, Bryman 2012). Due to these different philosophical underpinnings, it was thus deemed impossible to combine different methods in order to come together perfectly and produce a coherent world view. As a result, some have gone as far as to categorically reject mixed methods approaches: 'because the two paradigms do not study the same phenomena, quantitative and qualitative methods cannot be combined for cross-validation or triangulation purposes' (Sale *et al.* 2002, p.43). Others, such as Silverman (2005), do not reject mixed methods per se, but do urge researchers to be cautious of the complications of 'mapping one set of data upon another' (p.121).

3.1.1.1 A pragmatic approach to interdisciplinary research

I have followed those who have rejected this strict coupling of epistemology and methods (e.g. Hammersley 1992, Halfpenny 1997). Johnson and Onwuegbuzie (2004) for example, argue that 'there is rarely entailment from epistemology to methodology' (p.15), and that differences in epistemological beliefs should not prevent the utilisation of a particular data collection method. For Hammersley (1992), the paradigm debate has been overemphasised, obscuring 'the breadth of issues and arguments involved in the methodology of social research' (p.159). While important, epistemology does not have the sort of determinate implications for the choice of method that they are sometimes assumed to have (Hammersley 1992). These views have become associated with pragmatism, considered by some to be a third research paradigm, alongside positivism and interpretivism (Creswell and Plano Clark 2007, Teddlie and Tashakkori 2009). This approach does not claim to overcome the epistemological and methodological differences between purist positions, but rather use a method and philosophy that attempt to bring together

the insights provided by different methods into a workable solution (Johnson and Onwuegbuzie 2004).

A key aspect of the pragmatic approach is the orientation towards the problem to be researched and the belief that the empirical and practical consequences of choosing a particular research method should inform the choice of methods as much, if not more than, epistemological considerations (Hammersley 1992, Philip 1998, Johnson and Onwuegbuzie 2004, Feilzer 2010). This means that the criteria used to choose between different forms and types of knowledge are often different than if the starting point was purely academic in nature (Robinson 2008). It thus offers a practical and outcome-oriented research approach that enables the researcher a way to select methodological mixes appropriate for answering their research questions (Johnson and Onwuegbuzie 2004).

Such a pragmatic, problem-led approach fits particularly well with the interdisciplinary nature of my research. Although categorising research by discipline remains common in academia, it is also well-recognised that key issues of our time, such as society's reliance on fossil fuels and the proposed solutions to it, do not neatly sit within conventional subject boundaries (Newell and Klein 1996). My interest in interdisciplinary research is primarily instrumental in nature, i.e. based on the potential answers it can provide to particular questions, and the provision of results which are equally valuable within and beyond academia (McNeill 1999, Robinson 2008). This is not to say that academic considerations are not important, but rather that 'real world' issues form the starting point of inquiry, from which the researcher moves into 'the arena of scholarly knowledge' (Robinson 2008 p.72).

Energy is an illustrative example of this. Where early energy research often considered it to be a technical issue, requiring a technical solution (D'Agostino *et al.* 2011, Sovacool 2014a), as the literature cited in this thesis shows, there has been a growing attention for the social dimensions of energy production and use. It

is now increasingly recognised that both practical and intellectual issues around energy do not always sit neatly within conventional subject boundaries (Sovacool 2014a, Schmidt and Weigt 2015, Devine-Wright *et al.* 2017). As such, it has been argued that an interdisciplinary approach to energy research is particularly appropriate to increase the relevance, explanatory power, and practical applicability of energy research (Sovacool 2014a).

The approach to this research can be described as pragmatic and ‘undisciplined’ (Law 2004, Robinson 2008): problem-led and informed by ideas from different disciplines (in this case, particularly geography and political science), but not restricted by them. The research questions for this project emerged from both the academic literature and observations I made during my research, as well as during a six-month internship at the Scottish Government. Based on this I wanted to better understand the interactions between actors at different scales in order to understand how participatory spaces for community energy are created and challenged by analysing the interactions between actors at different scales. Nonetheless, a key part of any research process, but particularly research that adopts a problem-led approach, is the translation from research problem to method. In this research, this has taken an iterative approach, moving between theory and practice and vice versa. This has also been labelled an ‘emergent research design’, where research questions and methods co-evolve in response to what is learned in the field, and to pursue unanticipated directions of inquiry (Charmaz 2008, Morgan 2008). It was through this emergent process that I came to adopt mixed quantitative and qualitative methods in my research. While Tashakkorie and Teddlie (1998, p.21) argue that ‘for most researchers committed to the thorough study of a research problem, method is secondary to the research question itself, and the underlying worldview hardly enters the picture’, I would argue this is overly simplistic. Rather, while my choice of methods was informed by the research problem, ontological and epistemological considerations were always implicit in the choice of method.

In the next section I will discuss the research design for this thesis in more detail. I will provide a brief overview of what mixed methods are, before providing a justification for why this was deemed an appropriate approach to this research, and detailing the ways in which I have employed and integrated these methods.

3.1.2 What: mixed methods research

The pragmatic approach described in the previous section is closely associated with the use of mixed methods research, as it does not prescribe a particular method solely based on epistemological ontological considerations, but also practical considerations which may influence one's choice of methods, such as the stage of the research cycle (inductive or deductive) (Hammersley 1992, Tashakkori and Teddlie 1998). The term 'mixed methods' is generally used as a simple shorthand to describe research that combines quantitative and qualitative research within one project (Bryman 2012). Within the mixed methods literature various definitions and conceptualisations can be distinguished, with some focusing more on the philosophical assumptions that connect mixed methods with a pragmatic approach (Tashakkori and Teddlie 1998), and other more on the research techniques (Philip 1998, Creswell *et al.* 2003) underpinning the research. Others (Creswell and Plano Clark 2007, p.5) attempt to find the middle ground by referring to mixed methods as a 'research design with philosophical assumptions as well as quantitative and qualitative methods'.

Early descriptions of mixed methods were often based on Denzin's (1978, p.291) concept of triangulation, described as 'the combination of methodologies in the study of the same phenomenon'. The triangulation metaphor originates from navigation strategy, where its multiple viewpoints are expected to create greater accuracy (Jick 1979). From this perspective, mixed methods are thus seen as a means to study a phenomenon from different angles in order to minimise the risk of generating incorrect or inaccurate findings (Philip 1998). In other words, it is

grounded in a belief that quantitative and qualitative methods 'are nearly always more powerful when used in combination than in isolation' (Gorard and Taylor 2004, p.6)

Since the 1970s, mixed methods research, and the evaluation thereof, has grown in scope and complexity, and challenged the idea that those conducting interdisciplinary research do so to present an 'unproblematized reality' (Brannen and Nilsen 2007, p.158). What has emerged is the recognition that not all mixed methods research seeks to achieve cross-validation or triangulation. For example, Mason (2006) distinguishes six strategies through which methods can be combined, while Bryman (2012) has identified no fewer than 16, of which triangulation for corroboration purposes is only one such strategy.

Mixing methods is thus not simply a case of bringing large amounts of data together in order to gain a comprehensive picture, as different kinds of data may be creating a different kind of picture (Irwin, 2006). Therefore, one way to employ mixed methods research while accepting the view that epistemology and methodology are inherently linked, is to use the discrepancies that (may) emerge from different approaches to ask new kinds of questions, and look more closely at data and develop multi-dimensional ways of understanding (Brannen 2005, Mason 2006). Thus, rather than using two or more methods to address a question or issue at the same stage, what my research seeks to do is use complementary methods to understand different facets of the same problem.

3.1.3 Why: A mixed methods approach to my research

I have used a pragmatism-inspired, mixed methods approach to this research for three main reasons. First, in the previous section I set out that energy is a concept that is of cross-disciplinary interest, and has often adopted a problem-led rather than discipline-led approach. Nonetheless, while community energy research more specifically has also been of interest to different disciplines, research to date has

been limited in the adoption of mixed method approaches. Despite the expansion of the academic literature on community energy initiatives in the UK in the last decade, the evidence base this has produced is 'partial and fragmented' due to the dominance of qualitative studies (Seyfang *et al.* 2013, p.977), as well as the diverse and rapidly evolving nature of the sector (Databuild Research and Solutions Ltd 2014). A significant body of qualitative research has emerged, often focusing on one or a few case studies (Walker and Devine-Wright 2008, Gouman 2011, Rogers *et al.* 2012b), producing work that is rich in detail, but of which it is unclear how these cases influence, and are influenced by, more structural trends and processes. There is a small body of work which has adopted a quantitative approach, in order to try and establish national trends in forms of ownership, organisation and choice of technology (e.g. Seyfang and Haxeltine 2012, Seyfang *et al.* 2013). Whilst helpful for providing an overview of the sector, this work is also limited in its ability to explain *why* these trends have emerged in the way that they have. I therefore wanted to apply a multi-method approach to integrate these different research focuses and enhance their explanatory power.

This brings me to my second reason for adopting a pragmatism-inspired approach my research: the desire to focus on the interactions between different scales in order to understand how the participatory space(s) for community energy are created and challenged. In particular, a mixed methods approach can provide a means to develop a conceptual link between social behaviour and wider social systems, in order to 'meaningfully make interpretive sense of localised phenomena' (Greene 2008, p.7). It has been argued that mixed methods can be especially useful to conduct different levels of enquiry, where quantitative methods can provide an account of structures in social life ('what is happening?') qualitative research provides a sense of process ('how or why is this happening?') (Gorard and Taylor 2004, Bryman 2012). As a result, mixed methods are thought of as being able to couple the 'power of the general with the insight and nuance of the particular', and that as such, it 'illuminates people's lives and the larger contexts in which they are

embedded' (McLafferty 1995, p.440 in Philip 1998, p.271). In summary, proponents have thus argued that mixed methods allow the researcher to gain insights into both the general and the particular, the regular and the variation (Greene 2008).

Such multi-scalar research is particularly relevant to researchers, including myself, who are interested in understanding the messy empirical realities of how specific socio-environmental configurations are created (Robbins 2012). According to Holstein and Gubrium (2004 in Irwin 2006) too often social context (such as class and social structure) are invoked in explanation without due empirical explanation, i.e. how social contexts are recognised by, or related to, social actors. In my project, by combining research at different scales, I have sought to focus on the interactions between context and cases (individual community energy groups). The aim of this has been to understand how specific processes (the devolution of responsibilities for energy generation away from central government) materialise, and are negotiated, in different places (also see Sundberg and Dempsey 2014). However, when different approaches are used to answer different questions, for example to investigate connecting segments of a social whole, careful consideration is necessary during the research design, collection and analyses stages about how the data will be integrated (Mason 2006). I will explain in more detail how I have navigated this challenge in the next section.

Finally, the choice for using mixed methods was also based on personal considerations, particularly my desire to further develop my research skills. I saw the challenge to master two different approaches, as well as an understanding of how to combine them, as an opportunity for skills enhancement and continued learning opportunities (see also Brannen 2005). Gaining knowledge of, and experience in, the use of multiple research methods is said to mitigate against 'trained incapacities' (Reiss 1968 in Brannen 2005, p.5), i.e. the entrenchment of the researcher in particular types of methods. Having primarily used qualitative

interviews in previous research projects, I was particularly interested in expanding my quantitative research skills.

This desire to further develop my quantitative research skills was also informed by my interest in conducting policy relevant research, and the time I spent working at the Scottish Government, where I realised the practical value of having quantitative skills. In the UK, mixed methods have been increasingly used around evidence based policy-making as well as policy evaluation (Ritchie 2003, Teddlie and Tashakkori 2009). There is often a preference from policy-makers for ‘hard data’, which have led Rogers *et al.* (2012) to call for a greater use of mixed methods research in community energy research. This, they argue, would ‘assist policy-makers’ and ‘allow an informed analysis of their [community energy projects] contribution to meeting high-level energy policy goals’ (Rogers *et al.* 2012, p.246). A mixed methods approach can thus be helpful to broadcast research beyond academic circles. This, however, also comes at a risk. The use of mixed methods simply for the sake of it can also seriously test the capabilities of the researcher and potentially produce disjointed and unfocussed research (Mason 2006). I also experienced these challenges in my research, as I will discuss in more detail in Section 3.2.

3.1.4 How: designing a mixed-methods research project

This research has taken an iterative approach, moving between theory, methodology, methods and questions in different directions, at different stages of the research process. I had made the decision to use mixed quantitative and qualitative methods reasonably early in my PhD based on the considerations set out above. The exact shape and form of this has, however, changed over time. In order to allow for the research design to evolve in response to what is learned in the field I have adopted a sequential (rather than concurrent) approach to mixed

methods research, where the findings from the first stage of the research influence the design of the second stage (Teddlie and Tashakkori 2009).

It is fairly uncommon for qualitative research to follow statistical enquiry (Ritchie 2003, Brannen 2005). Rather, qualitative methods are often used first, in order to develop and pilot research instruments. This is, however, especially the case for when quantitative research is the dominant approach (Brannen 2005). In this project, however, qualitative data collection has been the dominant methodology. The data collection and analysis for this project consisted of two broad phases, labelled an 'explanatory sequential design' by (Creswell and Plano Clark 2007, p.82). In the first phase, I conduct a quantitative analysis of secondary data on community energy projects in order to develop a typology of projects at the national (Scotland) level. This analysis helps to identify particular trends and cases which were followed up through qualitative methods. This qualitative component thus helps to shed light on the process dimension of participation – how and why certain socio-structural contexts influence participation at an individual level (also see Brannen and Nilsen, 2007). Although quantitative research followed by qualitative research is a less common form of sequencing (Ritchie 2003, Brannen 2005), it has been deemed particularly useful when the quantitative research is to be used to identify groups for more in-depth qualitative research (Brannen 2005). This approach also helps to negate Brannen's concern regarding the sequential approach: that contextualising data is collected, but does not sufficiently inform the collection and analysis of primary data. By using my community energy typology as a foundation for subsequent data collection, I have tried to ensure that, while answering different parts of my research question, qualitative and quantitative data are closely linked.

To summarise, thus far I have discussed my methodological approach to my research. I have adopted a pragmatic, problem-led approach to my research. While I recognise the methodological debates around the use of mixed methods, I have

determined that the use of quantitative and qualitative methods for my research is an appropriate choice. My focus on the interaction between structure and agency means that quantitative data will be used to answer the ‘what’ questions of my research’: what does the Scottish community sector currently look like? The typology that emerged from this has subsequently been used to inform the qualitative data collection phase of my research, which, in turn is focused on the processes of community energy: how different forms of participation are shaped *at* and *beyond* the community scale. Focusing on different aspects of a research question, qualitative and quantitative methods can be combined, although care is still required when integrating these different forms of data. In the next section I will explain in more detail how these different methods were used.

3.2 Methods

3.2.1 Quantitative methods

The first phase of the data collection and analysis for this project focused on a secondary analysis of quantitative data. The aims of this phase have shifted with time, as a result of complications with the initial analysis, as described in more detail below. Nonetheless, this phase of the research has had four broad purposes which have remained relevant throughout the project:

- To improve understanding of the make-up of the community energy sector in Scotland
- To understand the distribution of community energy projects
- To inform the questions to be researched through qualitative primary data collection
- To identify cases for the qualitative research phase

To conduct the quantitative analysis a database of all known community energy projects in Scotland, developed by *Scene*, an Edinburgh-based Social Enterprise

focusing on community energy, was used as the foundation. An agreement was reached with Scene where they granted access to their database in return for the addition of new data that I were to find during my research. The benefits of using existing data is that it economises on money and time (Dale *et al.* 1988). The Scene database already included details on more than 300 community energy projects, collected by their staff and research students over the previous years. Whilst I allotted time to familiarise myself with the data, verify it, and expand it, there was still significant benefit to having this database as a starting point.

One of the key limitations of using secondary data is that as a researcher, I had no influence over what original data was collected, nor when or how it was collected. Whilst Scene's dataset was very comprehensive in nature, much of the data had been collected 2-3 years' previous. As a result, this data required updating. A second potential problem with using secondary data includes previously-made decisions in how the data categories are defined and the scale at which the data is collected (also see Hantrais and Mangen, 1996). Here, I found that some data categories were insufficiently detailed or missing, particularly data on legal models. As a result, I added this data through searching the Companies House and Scottish Charity Register. I updated other details through searching community groups' own websites. I also recoded some of the variables in the database, primarily to reduce the number of categories.

Perhaps the main issue in terms of data categories is the fundamental question of what constitutes a community energy project, and therefore which projects should be included or excluded from the database. Here, I made the decision to focus solely on projects set up by voluntary civil society organisations, who had played an active role in the developments of these projects and who focused on energy generating (rather than saving) activities. I justify this decision in further detail in Chapter Four.

Once I had defined the data categories and organised the data in a way that was appropriate with my research aims, I could begin the data analysis process. Throughout this process I used SPSS to both organise and analyse my data. As the next section will show, however, my approach to analysing the data changed during the project, due to difficulties encountered during the data analysis process.

3.2.1.1 The initial plan: understanding the distributional dimension of community energy

I had initially intended to use quantitative methods to understand community energy initiatives are distributed throughout society. As others (Park 2012, Fuller and Bulkeley 2013, Catney *et al.* 2014) have suggested, the opportunities to participate in community energy initiatives are not spread equally through society. However, there has thus far not been a systematic analysis of the social and spatial distribution of such projects.

The choice for quantitative methods for this part of my research is based on several considerations. First, much research into community energy and suggested 'success factors' has focused on in-depth case studies, where qualitative methods have been used in an attempt to explain why a specific community group has been successful in developing an energy project (Walker, Hunter, *et al.* 2007, Walker *et al.* 2010, Bomberg and McEwen 2012). However, little is known as to whether these 'success factors' are lacking in communities that have either failed or have not attempted to develop similar projects. Thus, a national-level overview would allow for an analysis of whether at least some of these success factors stand up to scrutiny when looking at the nation as a whole, and whether new factors emerge that have not been identified at an individual case-study level. This approach was informed by research conducted in the field of environmental justice, where there is substantial body of work which has sought to quantitatively establish the link between geographical locations, the socio-economic characteristics of these places and the presence of environmental bads (Walker 2009).

In order to do so I combined a number of different datasets: the adapted Scene database on community energy, and various datasets produced by the UK and Scottish Government, such as the Scottish Index of Multiple Deprivation (2012), Scotland's Census (2011), Scottish Neighbourhood Statistics (2011/2012), covering a range of socio-demographic characteristics. Through this, I sought to understand the correlation between the prevalence of community energy projects and specific socio-demographic characteristics which had been identified in previous studies as potential success factors, including levels of income (Walker 2008, Catney *et al.* 2014), education (Harnmeijer 2012), age (Park 2012, Seyfang *et al.* 2012), housing tenure (Rogers *et al.* 2008, Walker 2008b, Baken 2014) and remoteness (Murphy 2010, Bomberg and McEwen 2012, Harnmeijer 2012).

3.2.1.2 Limitations of this approach

Nonetheless, a number of problems emerged with this approach whilst conducting the analysis. First, data zones – small area statistical geographies – do not always overlap with the community (of place) that develops an energy project. Scottish community groups are primarily place-based, but self-identify their boundaries. These boundaries are often at odds with the datazones in which the Scottish Government collects and presents its data. Secondly, not all Government statistics were available at the smallest possible data zone level, which made the data less relevant to the particular geographical area under investigation. Third, many community groups are led by a small number of active people (Creamer 2015b). The socio-economic characteristics of these individuals may be at odds with the characteristics of the neighbourhood at large. Finally, the idea of 'access to' can be complex, as it can be framed in a number of ways, including access to participation in development process; access to usage of the energy generated by the resource; and access to the financial benefits accruing from the development.

Some of these issues could potentially be resolved through the second phase of the research, where qualitative research can potentially play a role in clarifying

quantitative findings (Bryman 2012) or revealing previously concealed ambiguities and adding new meanings (Brannen 2004, Silverman 2006). Nonetheless, combined, I concluded that the above issues limited my ability of this approach to generate informative, reliable findings.

Reflecting on this phase of the research, which took place in the second half of 2014, I would say this ‘dead end’ was the result of limitations of the data, as well as perhaps my limitations as a (quantitative) researcher. My motivation to conduct this kind of analysis had been both theoretically informed, and by my own desire to improve my (quantitative) analytical skills. I therefore took a course in quantitative research methods to refresh my memory. The limitations of using secondary data meant that it was not possible to conduct the type of analysis that I had envisaged. I am currently collaborating with another researcher, however, to see if a different type of analysis could possibly be feasible. At the time, however, I decided to change my approach to the data, and develop a more nuanced analysis of the community energy sector instead.

3.2.1.3 A new plan (Chapter Four of this thesis)

The above example shows that designing and conducting research can often be a ‘messy’, rather than linear, process. The preparation of the dataset had ensured that I had developed an up-to-date overview of the Scottish community energy sector. Based on the availability of this data, I therefore considered whether it could be used in a different way. Whereas the initial data analysis had thus been guided by deductive reasoning (the testing of predictions), this time it was to be guided by inductive reasoning (moving from data to theory).

As indicated, the above analysis had solely focused on the presence, or lack thereof, of community energy projects in certain areas. As the distributional approach proved problematic, I decided to change approach in order to undertake a more nuanced analysis of the shape of the community energy sector itself, and to create a

typology of community energy projects in Scotland. By doing so, I aim to bring the community energy concept more sharply into focus through highlighting its different components. I use the same community energy data (identified above) as the basis for the creation of this typology. I provide a more detailed description of the data analysis process, and present the findings, in Chapter Four.

3.2.2 Qualitative methods

In addition to developing a more nuanced picture of the community energy sector, the quantitative analysis phase also served to inform the second, qualitative phase of this research. While the typology sets out the current configuration of the community energy sector, it does not explain the causes or implications of this configuration. If the first step was to map the ‘participatory spaces’ (DeFilippis *et al.* 2006) of community energy, then the next step is to try and identify how these spaces are created, and by whom. To do so, I seek to understand both internal community governance processes in more detail as well as their interaction with the wider structures in which they are situated. Particularly, if one seeks to understand processes in more detail, a qualitative approach can be most appropriate (Creswell and Plano Clark 2007). The typology created through quantitative analysis informed the selection of cases for follow-up research (also referred to as ‘explanatory research design’ by Creswell and Plano Clark (2007, p.82)).

3.2.2.1 A broad approach

The premise of the typology was based on the notion of ‘critical pluralism’ (Schlosberg 1998, 1999, 2004, 2007) – which is explained in further detail in Chapter Four. At the heart of this concept is the recognition of, and support for plurality, based on the different histories and experiences of community groups and the individuals within them, which account for the different practices, motivations and aims found within the community energy sector. Whilst this

typology shows the current configuration of the community energy sector, it does not explain the causes or consequences of this configuration.

The qualitative component of this fieldwork sought to understand this configuration, and its links to energy democracy. Particularly, I wanted to look at how participatory spaces for community energy governance are created and contested, both at a community level and a societal level. This focus was informed by the debates on energy democracy discussed in the literature review – particularly the conceptualisation of the creation and contestation of participatory spaces in light of broader practices of (neoliberal) governance. The typology informed my choice to look at difference: how do different types of community groups negotiate energy governance within their projects and how, at a societal level, is the space for different types of community energy projects negotiated?

In order to do so, the qualitative component of this research consisted of interviews with community groups and intermediary organisations operating in the community energy sector (a list of cases, and the number of interviewees per case, can be found in Appendix 2). Interviewees were primarily recruited through a purposive sampling approach, informed by quantitative phase of the research, with a small number of interviewees recruited through snowball sampling (Bryman 2012). I have made the choice to include intermediaries as I am particularly interested in understanding the relation and interactions between community groups and the broader structures in which they operate. Intermediaries were expected to play a key role in shaping these interactions (Hargreaves *et al.* 2013, Seyfang *et al.* 2014, Bush *et al.* 2017), as I will discuss in detail in Chapter Six.

In order to account for the diversity of the sector, I have set-up of the qualitative component of this research, as a broad, rather than detailed case-study approach. Or, as Silverman (2005, p.127) calls it: ‘the collective case study’, where a number of cases are studied in order to investigate a general phenomenon. This broad set

up has enabled me to continue to focus on difference, by highlighting the variety of practices and experiences within the sector.

3.2.2.2 Selection of cases – community groups

In order to account for this variety I selected cases from across the different types identified in the quantitative research stage. Initially, four to six community groups per typology category were identified for possible further research, totalling 25 possible community groups to be included in the next phase of the research. The proportion of groups per category subsequently changed slightly for both intentional and unintentional reasons. There was an intentional readjustment to have a more proportional representation. In other words, categories in the typology which had a larger number of groups in them, would have a greater representation in the qualitative phase of the fieldwork. For reasons of practicality, groups were also chosen based on their location, to allow me to conduct face-to-face interviews. As a result, community groups in three broad geographical regions were contacted: North Scotland (Highland and Aberdeenshire), the islands of Harris & Lewis, and the Shetland Islands.

I contacted these groups with a request for interviews (Appendix 3). At this stage, a small number of groups did not respond or indicated they did not wish to participate, primarily citing a lack of time. As a result, fifteen community groups were included in the qualitative phase of this research, the details of which can be found in Chapter Five.

The choice of a broad set up was expected to provide an insight into different forms of community energy governance and how these different forms, combined, have created the current configuration of the community energy sector. As a result of this broad set-up I only interviewed a single community ‘representative’ of most organisations. I also recognise, however, that an interview with a single community ‘representative’ is limited in its ability to do justice to some of the complex themes

discussed. Some of the themes discussed – such as issues of community governance, accountability, inclusion and dispute resolution – are complex in nature and are likely to be experienced in different ways by different individuals. It is well-recognised in the community development literature that questions of power are inherent in the creation of new participatory spaces, and that a critical approach is required to understand the ways in which legitimacy is conferred on community representatives (Nelson and Wright 1995, Jones 2003, Shirlow and Murtagh 2004, Taylor 2007). It is therefore important to question the extent to which community representatives' views are truly representative of the wider community that they either claim, or are deemed by others, to represent. I have addressed this issue in two ways. One, by reflecting in my analysis what factors may influence individuals' views, and not assuming that their views are representative of those of others in the same community. Secondly, I also examined three cases in more depth to allow a greater variety of views within single communities to be heard. In these three cases, I interviewed a wider range of people – both those actively involved in community energy projects as well as other local residents – in order to better understand the different perspectives present within a single community.

While the time-frame for this study did not allow an additional longer-term case study approach to complement this broader set-up, further interviews were conducted with three community groups. I conducted additional interviews with other members of these groups, as well as local residents who were not members. Thus, follow-up interviews with other group members and local residents, while perhaps insufficient to paint the kind of detailed picture that an ethnographic approach could offer, help to identify some of the complexities and nuances of internal community governance.

3.2.2.3 *Selection of cases – intermediaries*

In addition to interviewing community groups I also wanted to speak to intermediary stakeholders, in order to understand the role they play in shaping and mediating the relation between community energy groups and the broader structures in which they operate. As part of a research project for ClimateXChange on community investment in commercial energy (see Haggett *et al.* 2014) I developed a simple social network map of community energy organisations operating in Scotland (Appendix 7). Some of the organisations included in this map, such as Community Energy Scotland and Local Energy Scotland, have played or continue to play a key role in supporting the development of community energy projects. Other organisations, such as Community Land Scotland or the Development Trusts Association, tend to play a broader role in the community development sector. More detail about the selection of cases is offered in Chapter Six.

I had anticipated that gaining access to intermediaries could be difficult. However, I had previously worked with a number of these organisations on a different project at the Scottish Government. This project, entitled 1 Million Acres, focused on developing a new community landownership strategy, and included a process of extensive consultation with intermediaries operating in the community land sector. Although focused on community landownership, many of these intermediaries also operate in the community energy sector, as many community groups are involved in both activities. I think that this previous contact proved to be very helpful, as all these contacts were very happy to help, and also helped to identify further research contacts. As Hammersley and Atkinson (1983, p.78) point out, research participants ‘are often more concerned with what kind of person (emphasis in original) the researcher is than with the research itself. They will try to gauge how far he or she can be trusted [...]’.

Thus, my earlier engagement and interaction with some of the individuals involved in this research may have helped to establish relationships of trust, which I was subsequently able to utilise for the purposes of this research. Mirroring findings from the literature I found the ‘snowball’ method, where participants recommend other people to speak to, useful for a variety of reasons, not least because it is possible to simultaneously make use of, and reveal the connectedness of, individuals in networks (Noy 2008, Bryman 2012). However, the disadvantage of relying on participants’ networks is that it can lead to the selection of like-minded and connected individuals, which means that dissenting voices may be excluded. Here, the previously developed social network map was helpful to identify additional organisations to which to speak.

What I had not anticipated is that my familiarity with some of the people I interviewed also had its disadvantages when it came to writing up my findings. I will reflect on this in detail in the concluding chapter of this thesis.

3.2.3 Interviews

Within the range of qualitative research methods, I chose to conduct semi-structured interviews. As Byrne (2012) writes, qualitative interviews can be particularly suitable method for accessing complex issues such as respondents’ understandings and opinions, in that they enable interviewees to speak in their own voices and with their own language. As I was trying to gain information on the practices of governance, as well as on people’s perceptions of these practices (especially in the three more detailed cases), it was especially important that individuals could express these perceptions in their own voice.

There are, however, limitations to using interviews as method, particularly that observed behaviours may differ from people’s answers in interviews (Byrne 2012). As part of this thesis is concerned with democratic processes, I considered whether alternative approaches to study behaviour, such as participant observation, may be

a more suitable method to understanding decision-making processes. The choice for interviews over participant observation was made based on two key considerations: practical and methodological. First, from a practical point of view, observation may have proven to be difficult. Many community energy groups meet once a month at most, and I anticipated that interactions (especially in communities of place) were as likely to happen informally or through online communication as in the formal settings of meetings (also see Taylor 2011). Thus, observance at community meetings may have only represented one part of the interactions taking place, and it is well-recognised that the presence of a researcher may inadvertently change the behaviour of those being observed (Bryman 1995). Additionally, as I was interested in adopting a broad approach, it would have been difficult to adopt this approach for a large number of groups across Scotland. The second, methodological consideration was that interviews can be particularly useful to gain an understanding of interviewees' own interpretations, understandings and opinions of events and processes (Byrne 2012). As Blaikie (2009) also notes: although the use of interviews means that the researcher is removed from the natural setting of the participant, in-depth interviews have the potential to get close to participants' meanings and interpretations of social interactions in which they have been involved (Blaikie 2009). Thus, the use of interviews enables participants' lived experiences to come through.

The focus on (democratic) practices of governance – to be researched through qualitative interviews aligns with the broader pragmatist research approach discussed earlier. In particular, this is evident in how the nature of reality is considered, and our ability to understand it. Here, the pragmatist position – not dissimilar to critical realism (Lipscomb 2011, Christ 2013) – is that there is an external world independent of our minds, but is unsure if one explanation of reality is better than another. This is evident in this research through the types of questions asked (Appendix 6), and the data analysis conducted. In contrast to, discourse analysis for example, I have considered my interviews as enabling to

shed light on a phenomenon that is 'real' (democratic governance practices). In Chapter Five for example, I have analysed my interview answers in the context of key criteria of democratic governance, which I have established based on the literature. At the same time, however, as I established earlier, I also ascribe to the idea that any person's account of this reality is partial. I will discuss the implications of this dualism in more detail in the methodological reflection in this thesis' conclusion.

The semi-structured approach to interviewing was chosen because it allows for flexibility, while also providing a basic structure that will allow for comparison between the different groups (May 2011, Bryman 2012). The less rigid structure of semi-structured (compared to structured interview methods) allows for clarification and elaboration on answers given, enabling the researcher more scope to probe beyond the initial answer and enter into a dialogue with the interviewee (May 2011). As Mason (2002 in May 2011) remarks: this approach is based on the notion that interviewees may be answering questions other than those the researcher asked, and that they may make sense of the world in ways the researcher had not previously considered.

The context of the semi-structured interview is an important aspect of the process (May 2011). I have tried to interview most of my participants face-to-face. Although the evidence is mixed (e.g. Sturges and Hanrahan (2011) and Bryman (2012) cf. Irvine *et al.* (2013)), there is some indication that respondents tend to speak longer in face-to-face interviews (Irvine *et al.* 2013). Nonetheless, telephone interviews enabled me to reach additional interviewees whom I otherwise would not have been able to speak to due to time and financial constraints. Finally, nearly all interviews – phone and in person – were recorded with the consent of interviewees. In a very small number of cases where interviewees expressed a preference not to be recorded, I took detailed notes and recorded my own additional summary immediately after the interview. The majority of interviews

were conducted between February and June 2016, with a small number of follow-up interviews conducted at later dates.

An interview schedule was developed for each interviewee (example in Appendix 6), which contained a number of questions which were covered in each interview, and a number of questions that were specific to the individual interviewee, informed by prior desk-based research. In addition to these pre-developed questions, further questions were asked based on interviewees' answers. This approach enabled a focus on what the interviewee views as important in explaining and understanding events and patterns, in other words, how the interviewee framed and understood issues and events (Bryman 2012). I conducted pilot interviews with two acquaintances who work in the sector in order to test how the interviewees responded to the questions and the general flow of the interview. This was particularly helpful in structuring the order of interview questions.

Bryman (2012) notes the importance of formulating interview questions that are not so specific that alternative avenues of enquiry that might arise are closed off. He also warns, however, against asking too many general questions. I found finding a balance between being too specific or too general one of the most challenging aspects of interviewing. During my first few interviews I also found that posing very open-ended questions sometimes led to superficial answers, possibly based on the presumption of the interviewee that I had only limited knowledge of the topic and context. One of the main challenges I encountered, therefore, was how to construct interview questions that encourage interviewees to provide in-depth answers, without closing off alternative responses. This was particularly challenging in interviews where interviewees were short of time, and where there was thus only limited scope to ask participants to clarify or elaborate on their answers. It is inevitable that there will be a variation in the quality of information generated in each interview (May 2011). In my case, through practice, information

gained through earlier interviews, and some audacity when discussing more difficult topics my questions began to elicit more meaningful responses.

The above issue is symptomatic of the broader concern of the positionality of the researcher. As Byrne (2012, p.208) writes: the information and opinions shared can vary widely on the nature of the encounter, as well as on the gender, class and cultural background of both the researcher and participant. As a reasonably young, non-Scottish, female I was concerned that interviewees would assume I had little prior understanding of the topics I wanted to discuss. I think that potentially I internalised these concerns, even if they were not expressed or addressed explicitly by interviewees. As a result, I had to take care not to overcompensate by attempting to show off my prior knowledge and understanding of the topic, but give respondents the space to frame their answer without too much initial input from me. The issue of positionality became once again important as I was writing up my findings, as I will discuss in more detail in the conclusion.

3.2.3.1 Ethics and informed consent

All potential research participants were sent a project information sheet and consent form (see Appendices 4 and 5) when I first made contact. Participants completed the consent form at the interview, or in the case of phone interviews, verbal consent was asked. Whilst many participants consented to be identified, some preferred to remain anonymous. For both purposes of consistency and because some interviews did touch on sensitive or controversial topics, I decided to anonymise all findings.

One of the community groups with whom I conducted further in-depth interviews also has two youth observers on their board. As the inclusion of young or other underrepresented groups is a key discussion in the democracy literature, I was interested to include these two young members in my research.

Working with minors brings additional ethical consideration into focus (Morrow and Richards 1996). In order to ensure that they were informed of the research purpose, I created a further project information sheet, written in a more accessible manner. In the first instance I made contact with these participants through their parents/guardians. When consent was obtained from the parent and the young person themselves I set up a phone interview. I made additional efforts to reiterate the purpose of the interview, and their inclusion in it, as well as their right to withdraw their consent at any point.

Following the interviews, all participants were sent their interview transcript, enabling them to clarify or correct any answers, although only one person did. In addition, I wanted to ensure that all participants had a chance to review any direct quotes included in the findings. Therefore, any quotes and relevant contextual information have also been sent to participants, to ensure not only that they agree with their words being included in the findings, but also that they agree with how I may have interpreted their words. During this process, a second participant asked to rephrase or clarify particular answers, which I subsequently did.

3.2.4 Data Analysis

I began to transcribe and analyse my data as I was collecting it, to help me focus my interviews and test emerging conclusions (Maxwell 2009). Nonetheless, the bulk of the analysis, especially that of data generated through later interviews, was conducted after I had collected the majority of my data.

Due to the volume of data I decided that computer-assisted analysis of qualitative data (CAQDAS) was the most appropriate way to organise and analyse my data (Seale 2005). I therefore uploaded the transcripts from my interviews, as well as key documents – such as community leaflets, reports by intermediaries and policy documents – that I have collected during my research, to NVIVO for qualitative analysis. The software was particularly helpful not only for coding the content of

the data, but also for identifying and coding the types of sources, e.g. community groups versus intermediaries, the type of community group, and the roles of the individual interviewed (e.g. employee, volunteer, local resident).

The purpose of this stage of the analysis was to categorise and ‘fracture’ (Strauss 1987, p.29) my data and rearrange it into categories to allow for comparison of the data within and between these categories. The initial categories I established were primarily organisational categories, based broadly on the different interview questions. These served primarily as an initial way of sorting my data for further analysis. Subsequently I categorised my data into substantive and theoretical categories, developed through open coding of the data in order to develop a theory of what is happening (Maxwell 2009).

One concern regarding the use of this categorising strategy generally, and the use of computer software for this purpose specifically, is that it may inadvertently promote a narrow approach to analysis (Seale 2005). Due to the creation of coded segments and grouping them into different categories it is easy for a researcher to focus on their coded segments to the exclusion of the broader context in which the coded segments sit. I sought to combat this by re-reading some of my interview transcripts as I was writing my empirical chapters. This was also one further reason why I found it helpful to send my analysis to the people I interviewed and quoted. Their evaluation of my writing helped to ensure that I had not accidentally misinterpreted their words, but that their meaning stayed true to the wider context in which they had been spoken.

3.3 Concluding summary

In this section I have explained my approach to my research. Since I started my PhD in September 2013 my focus, and thus research questions, have changed considerably. This has happened at different stages of the process: during the first year I became increasingly interested in both the political and equity dimensions of

community energy. During the subsequent year, however, I learned that the quantitative analysis of the distribution of community energy projects that I conducted was not delivering substantial results, and that such an analysis was perhaps beyond my own skill set. Through conversations with my supervisors and a six-month internship at the Scottish Government my focus shifted, and I became increasingly interested in the question of how diversity within communities, and between them, is negotiated, and this became the main foundation for the following three chapters.

The research process has thus been an iterative, 'messy', one, where theory informed data, and data (or sometimes the failure to obtain or analyse particular data) informed theory. Throughout this process, however, the broad methodological framework that I developed during the first year of my PhD has remained in place: a methodology grounded in pragmatism, where the choice of methods has been problem-led rather than discipline-led. While the specifics of these problems under investigation have changed throughout the last three years, my broad interest in understanding the interactions between structure and agency – and understanding this through a multi-scale analysis – has remained, ensuring that a mixed methods approach remained appropriate.

The next three chapters include my empirical results. Chapter Four presents a typology for the Scottish community sector and is based on my quantitative analysis of secondary data. The following two chapters are based on qualitative interview data. Chapter Five focuses on the internal workings of community groups and analyses how these groups negotiate democratic governance in practice. The final empirical chapter (Chapter Six) uses intermediaries as a window to analyse the interactions between community groups and the state. Rather than using different methods to answer the same question, quantitative methods have thus been used here to inform the choice of cases and methods for the qualitative research phase.

Finally, each of these chapters has been either published, submitted for publication or is being prepared for submission. They are therefore presented as papers, but include some minor changes compared to the published/submitted versions to improve the coherence of this thesis.

4 Making sense of the Scottish community energy sector – an organising typology ³

4.1 Introduction

The concept of community energy is now generally accepted as a distinct form of renewable energy generation by researchers (Walker *et al.* 2011, Rogers *et al.* 2012a), activists and policy-makers (Meacham 2012, DECC 2014, The Scottish Government 2015a). As I explained in Chapter One, community ownership of renewable energy is seen not only as a means to meet renewable energy and carbon reduction targets, but also as a practice that can achieve a range of other social and economic benefits, including community regeneration and empowerment, fuel poverty reduction, and increased skills and social cohesion (Walker *et al.* 2007, Middlemiss and Parrish 2010, Murphy 2010, Capener 2014).

Despite its popularity amongst different stakeholders, the concept of community energy continues to be used ambiguously and with flexibility (Becker and Kunze 2014). The concept has generally been broadly applied to describe projects where communities are both involved in the process of developing the project and have a share in its outcomes (Walker and Devine-Wright 2008, Seyfang *et al.* 2013).

However, different actors include different types of organisations and practices within the broad label of ‘community energy’. For example, the Scottish Government only considers energy generation by not-for-profit groups ‘operating across a geographically defined community’ as community energy (The Scottish Government 2015a, p.2), whereas the UK Government also includes projects

³ This chapter has been published in *Scottish Geographical Journal*, Volume 133, Issue 1, pp.1-20. There are a small number of minor differences between the published version and the one included here. These primarily pertain to language and continuity with other chapters.

focused on energy demand and distribution, and communities of interest in their definition (DECC 2014). In other countries, such as Australia, Denmark, Germany and the Netherlands, the term ‘community energy’ generally includes projects targeting supply, demand and distribution, developed by communities of place or of interest (C4CE 2014, Roberts *et al.* 2014), and in some cases also includes other actors such as municipalities or housing associations (Mergner and Rutz 2014, Roberts *et al.* 2014, Schwencke 2015).

Flexible applications of the term ‘community energy’ can be valuable for communities as it enables experimentation with different models of project development, with fewer restrictions on what a project should look like (Walker and Devine-Wright 2008). This ambiguity therefore allows for a wide range of practices to emerge, dependent on, and sensitive to, local contexts (Becker and Kunze 2014). Earlier research (e.g. Walker and Devine-Wright 2008, Seyfang *et al.* 2013, 2014, Slee and Harnmeijer 2017) has shown this to be the case in the UK, with a diversity of technologies, business and legal models, motivations and aims, actors, and social relations emerging, as suited to each particular case.

So far, however, little attention has been paid to how this heterogeneity raises questions about the processes and actors which shape this sector, and to what effect. The conflation of different practices into the concept of ‘community energy’ means that often positive, normative assumptions are applied to a broad range of approaches to energy generation, without further questioning their different scopes, meanings and impacts. On the ground, the broad and diverse application of the term means that different stakeholders may have varying expectations of what a community energy sector should look like (Walker and Devine-Wright 2008, Seyfang *et al.* 2014). Analytically, the various interpretations of community energy also make it a slippery concept for analysis (Seyfang *et al.* 2014, Strachan *et al.* 2015). This not only limits our ability to understand these practices but especially

how they relate to broader societal transformations such as the restructuring of state-community relations (DeFilippis *et al.* 2006, Lawhon and Murphy 2012).

This research builds on earlier attempts at understanding the varied nature of the community energy sector by providing a typology based on a detailed analysis of the diverse sociotechnical configurations that comprise the Scottish community energy sector. By doing so, I aim to bring the concept more sharply into focus through highlighting its different components. Whilst focused on community energy in Scotland, the creation of a typology is of relevance to a broader audience. It can be seen as a step towards reducing conceptual vagueness, structure discussions around the scope, meaning and impact of community approaches to energy generation and question the assumptions that underpin these approaches (also see Dobson 1996, Tosun 1999). The creation of a typology also allows for more structured analyses of these issues across different geographical scales and locations (Ambrose-Oji *et al.* 2015).

This chapter is organised as follows: in the next section, I draw on the idea of ‘critical pluralism’ to discuss previous research that has sought to define or categorise the concept of community energy. Subsequently, it introduces a typology that highlights the plurality of this sector in Scotland through a systematic analysis. It will conclude with a discussion of potential causes that may have contributed to the current configuration of the sector and begins to consider some implications and avenues for future research.

4.2 Conceptualising a diverse sector

Although the pluralistic nature of the community energy sector is well recognised, it has been under-analysed and -theorised. Dominant analytical frameworks in energy geographies, like the multi-level perspective (see Geels 2002), have been critiqued for reducing ‘community energy’ to a homogenous concept that can be juxtaposed against an equally homogenous energy regime (Seyfang *et al.* 2014, see

also Shove and Walker 2007, Smith *et al.* 2010, Geels 2011). There are a number of limitations to this approach of encapsulating the meaning of community energy into a single concept. First, singular definitions are contestable, which can leave 'seekers after enlightenment often as confused at the end of their search as at the beginning' (Dobson 1996, p.402). Furthermore, definitions can often be location- and time-specific, which can make their relevance to other contexts questionable (Dobson 1996, Becker and Kunze 2014). Finally, this definitional approach has been critiqued based on researchers' tendency to overlook the diversity and variety of practices, and how these have evolved (Schlosberg 1999). While approaches like the multi-level perspective do focus on the evolution of practices, these analyses tend to focus on elites and technologies, offering little in the way of exploring the heterogeneity of motivations, visions, and social relations within niches (Lawhon and Murphy 2012, Eames and Hunt 2013). They therefore risk obscuring the diverse histories and traditions of these organisations, the myriad of causes and experiences to which the development of community energy projects is a response, and the power relations within which these developments are embedded (Schlosberg 1999, DeFilippis *et al.* 2006, Shove and Walker 2007).

4.2.1 Classifying community energy

There have been a number of previous attempts to move beyond the definitional approach and instead consider the structure of the UK community energy sector in more detail through classification schemes. These classifications often combine two key characteristics: levels of community participation and levels of (financial) benefit flowing into the community (e.g. Walker and Devine-Wright 2008, Callaghan and Williams 2014, Strachan *et al.* 2015, The Scottish Government 2015a). Whereas some (Walker and Devine-Wright 2008) use this spectrum-approach to simply indicate the broad variety of community projects that may exist, others (e.g. Callaghan and Williams 2014, The Scottish Government 2015a) have used it to create a hierarchy. This, perhaps unintentionally, gives the

categorisation a normative dimension: that certain ways of ‘doing’ community energy are better or more desirable than others. Additionally, a hierarchical approach implies that citizens would participate more if they had opportunities to do so or if barriers were lifted (Hayward *et al.* 2004, Hoffman and High-Pippert 2010). As previous research shows, however, intensive participation can have negative consequences, such as volunteer burnout (Middlemiss and Parrish 2010, Callaghan and Williams 2014), which a hierarchical approach risks overlooking. As such, it can fail to take into account what people want, and delegitimise peripheral or non-participation (Gronow 1995, Hoffman and High-Pippert 2005).

A small number of other typologies of the Scottish community energy sector consider other factors than level of participation or benefits. For example two studies have used typologies of the Scottish community energy sector which are based on ownership and business models (Haggett *et al.* 2013, Slee and Harnmeijer 2017). A more detailed breakdown, which emphasises the large variety of models available, has been developed by Haggett *et al.* (2014). This study, however, only considers joint venture projects and is primarily based on legal structures and associated financing models.

Although simplified categorisations have been critiqued for overlooking diversity within sectors or movements (Guha 1989, Dobson 1996, Schlosberg 1999, Flores and Clark 2001), I argue that typologies can form a useful starting point from which further differences can be discussed. These further discussions can be particularly fruitful if they move away from the tendency that disguises the plurality of the sector and forges a singular common identity (Schlosberg 1999). The next section describes how a pluralist perspective can help inform a typology that recognises and supports diversity.

4.2.2 What a pluralist perspective can offer

In this chapter I draw on the notion of ‘critical pluralism’, as proposed by David Schlosberg (1998, 1999, 2004, 2007), in order to create a typology that recognises difference in order to allow for a more thorough analysis of the different community energy practices, their aims and effects. The concept of pluralism has a long history in political theory (see Schlosberg 1999 for a useful summary), but perhaps its best-known form, liberal pluralism - characterised by its emphasis on distinct, homogenous groups as the key unit of political action – was popularised in the post-war years (Schlosberg 1999, Edmunds and Wollenberg 2001). Building on recent developments in social and political theory, critical pluralism emerged in response to the limitations of liberal pluralism. It is characterised by its recognition of, and support for, multiplicity and diversity within organisations and movements rather than seeking exclusion or integration (Schlosberg 1999, Patterson and Williams 2005, Dryzek and Niemeyer 2006).

Critical pluralism draws on the work of a number of authors (Young 1990, 2000, Haraway 1991, Jakobsen 1998) working within feminist and radical pluralist traditions, who have brought issues of identity and representation to the fore (Edmunds and Wollenberg 2001). While its appreciation for diversity has been criticised for seeming overly relativistic or nihilistic, proponents of critical pluralism have argued that openness and tolerance does not mean different approaches should not be compared or evaluated (Edmunds and Wollenberg 2001, Brown and Dillard 2013), but that this should be based on a recognition of the situated knowledges from which these approaches emerged (Guy and Moore 2007; see also Haraway 1988).

Schlosberg (1999) and others (e.g. Dryzek and Niemeyer 2006, Brown and Dillard 2013) have adopted a critical pluralist perspective in order to conceptualise complex and multifaceted new movements, specifically the environmental movement in the US, and suggest policies and practices that can encompass these

differences. Adopting this approach for the study of community energy enables a conceptualisation that moves beyond hierarchical notions of what an ideal project should look like, or the search for commonalities that unify them. Rather, the critical pluralist approach as introduced above emphasises different histories, approaches, motivations and actions, and how these have evolved. Through this focus on diversity, one can then begin to look in more detail at how spaces for community energy have been created and contested, and the power relations embedded in these processes.

My aim here is, then, not to develop an improved singular conceptualisation of community energy, but rather to emphasise and highlight the diversity of these projects in Scotland through a systematic analysis. Whilst some critical pluralists may be highly sceptical of any kind of categorisation (e.g. Schlosberg 1999), a typology can help to make the components of the concept under study more explicit and bring the concept more sharply into focus than discursive studies tend to (Dobson 1996). My proposition is therefore that such a typology is an important step towards reducing conceptual vagueness, structure discussions around the drivers, consequences, limitations and possibilities of community approaches to energy generation, in a way that includes not only the material dimension of community energy, but also highlights issues of recognition and participatory process (Schlosberg 1999, Tosun 1999).

4.3 Methodology

4.3.1 *Premise*

Typologies or categorisations can be viewed as rough groupings that aid understanding and provide a means to compare data across different groups, scales and locations, and over different time periods (Bleakley 2004, Ambrose-Oji *et al.* 2015). To improve understanding of the pluralist nature of the community energy

sector in Scotland this chapter introduces a typology, which categorises projects based on a range of variables and their interconnections.

The creation of any typology starts with the drawing of boundaries. In this typology a number of practices, which some may consider to be ‘community energy’, have been excluded. However, rather than obscuring any forms of community energy that were not included in this typology, they will be highlighted here. First, defining ‘community’ is always complex and some (e.g. Becker and Kunze 2014) have advocated a move away from the term ‘community energy’. I continue to use this term, as it is the dominant term used by actors themselves, rather than one imposed upon them (also see Seyfang *et al.* 2014). I recognise however, that the term ‘community’ has a long history and has been used for various ideological and rhetorical ends (Delanty 2003, Walker 2011). As a result, defining and operationalising the term ‘community’ is always fraught with difficulty, with the term meaning different things to different people (Walker 2007, Walker and Devine-Wright 2008). I have challenged the idea of the ‘natural’ homogenous rural community more extensively in my Masters dissertation (van Veelen 2013, van Veelen and Haggett 2016 - the latter is included here as Appendix 1). With the limited space available here, hopefully it is sufficient to say that in this research I defined ‘communities’ as groups of people who live in a shared place or who have a shared interest or identity.

Second, this analysis does not include community benefit payments from commercial developments. This decision was guided by the consideration that in my PhD research I have conceptualised community energy as a form of community-driven development. Therefore, only projects with some form of active community participation were included. I recognise, however, that groups who receive community benefit payments may experience similar governance challenge as groups who have developed their own energy projects (see Chapter Five in this thesis cf. Bristow *et al.* 2012, Markantoni and Quiroz-Aitken 2016). This typology

makes no claims, however, regarding the supposed *extent* of community participation in each type of project, only on possible different *forms* of community participation. Third, the analysis only includes projects where community groups collectively generate energy, or have expressed a desire to do so. Although many other groups are engaged in valuable activities, for example energy saving or energy generation for domestic households, these groups were not included in the analysis due to limited data availability.

The basis of this typology is informed by the view of community energy as a sociotechnical configuration, thus emphasising the co-constitution of the technical and the social (Bijker and Law 1992). This analytical perspective views renewable energy technologies as more than solely differently engineered artefacts or as projects with varying levels of participation. Rather, it considers them as pluralist practices; as configurations of 'the social and technical which have emerged in particular contexts and which mirror wider social, economic and technical relations and processes' (Walker and Cass 2007, p.459). This typology incorporates a broad range of variables in order to tease out the different relationships between renewable energy technologies and surrounding actors. This focus on the different constitutive dimensions is therefore a step towards enhancing understanding of the dynamics of community energy as a sociotechnical configuration.

Drawing on Walker and Cass (2007), the typology takes into account both the technology as well as the different dimensions of the social and infrastructural organisation through which these technologies are used and given purpose. It also includes information on the purpose of the organisation. This not only includes the motivation for establishing renewable energy projects, but also the broader purpose of the organisation, for whom development of renewable energy may be only one of many activities. Therefore, the inclusion of information on the purpose of the organisation as well as their motivation for establishing an energy project is

expected to improve our understanding of how community energy fits into the wider trend for community-led action and development.

4.3.2 Methods

As I explained in Chapter 3, the typology is based on data that has been collected by *Scene*, an intermediary in the Scottish community energy sector. Through their research (as evidenced in Haggett *et al.* 2013, Harnmeijer *et al.* 2013, 2015) they have identified and mapped community energy projects in Scotland through primary and secondary data collection. In order to guarantee the quality of the data, key variables of each of the projects in the database were checked against information available on the organisations' websites. The most common inaccuracies resulted from data being out of date. These were updated, and more recent projects were also added to the database. I added further variables ('link between generation and use', 'other asset ownership') through desk-based research, whilst other variables were recoded for the purposes of this chapter.

The resulting dataset includes information on both community organisations and their energy projects. Table 4.1 shows the different variables used to create a typology of community energy projects in Scotland. Organisational data was available for nearly all community groups in the database. However, project-specific information (kW, ownership model) was in some cases only available for operational projects. Further information on specific cases was collected through document analysis and semi-structured interviews with community group members in spring 2016.

Type of feature	Variable
Features related to the community organisation	Year founded
	Legal body
	Purpose of the organisation
	Other asset ownership (e.g. land, buildings)
Features related to the energy project	Financial model
	Ownership model
	Technology
	Size of installation (kW)
	Link between energy generation and use
	Primary motivation for establishing a renewable energy project

Table 4.1: Variables considered in the construction of the typology.

4.4 Introducing the Scottish community energy sector

Before discussing the typology, a brief introduction into the Scottish community energy sector is necessary. It is a sector made up of a broad range of sociotechnical arrangements. The database used in this study includes a total of 367 projects from 246 different organisations. Fewer than 40% of these projects are currently operational, whilst the remainder are primarily in various stages of development.

Based on my desk-based research it appears that the first modern-day community energy project in Scotland⁴, a 60kW wind turbine, was established on Fair Isle in 1982. The sector did not, however, experience the growth in cooperative energy in the 1980s and 1990s that took place in other European countries such as Denmark (Mendonça *et al.* 2009). It was only in the first decade of the 2000s that the development of new community energy projects began to accelerate. During this time some of its best-known projects were established, such as hydro projects in Assynt and Knoydart (2000 and 2002), the Isle of Gigha's *Dancing Ladies* wind turbines (2005), and the multi-technology renewable energy installation on the Isle of Eigg (2008).

These projects were generally developed by geographically-defined community groups in remote rural areas, in many cases following from recent community land purchases (McMorran *et al.* 2014). It was only in the second half of the 2000s that energy cooperatives began to emerge in Scotland, the outcome of an agreement between the commercial developer Falck Renewables and joint venture brokers Energy4All. Throughout this time community groups also developed smaller generating projects to provide heat or electricity to communal buildings, and broader energy efficiency and climate change initiatives. Out of these activities has emerged a very diverse sector, with a broad range of motivations, aims, models and technologies.

The Scottish Government has sought to stimulate the development of this sector in various ways. It first established and funded dedicated support services in the early 2000s, in the form of the Scottish Community and Householder Renewables Initiative (2002) and the Highlands and Islands Community Energy Company (2004). Since then, it has set a community and local energy target, developed a Community Energy Policy Statement (Scottish Government 2015b) and has

⁴ Thus excluding the projects established in the late 19th and early 20th century, as discussed in Chapter One.

provided targeted advice and financial support for community groups through the Community And Renewable Energy Scheme (CARES), delivered by intermediary organisation Local Energy Scotland. It is important to emphasise, however, that the Scottish community energy sector operates within a policy context that extends beyond Scotland's boundaries. Energy policy is for the most part reserved to the UK Government⁵, and the introduction of UK-wide incentives such as Renewable Obligation Certificates (2002) and the Feed-in Tariff (2010) are an important part of the context within which community energy has developed across the UK (Bomberg and McEwen 2012).

Both the UK Government (DECC 2010) and the Scottish Government (2015) frame their support for community renewable energy in two ways; as part of a broader low-carbon transition and as part of a community development agenda. These two agendas have become increasingly intertwined, with communities being assigned a central role in the transition to a low-carbon society (Park 2012, Markantoni and Woolvin 2015), as part of a broader (re)negotiation of state-civil society relations (DECC 2010, The Scottish Government 2015a). In this top-down agenda communities are not only the medium of change, to achieve a low-carbon society, but also the target of change: to increase their capacity, empowerment and resilience (Shaw and Theobald 2011, Creamer 2015b).

Thus, community energy in Scotland can be conceptualised as a sector that is driven by both bottom-up activities and concerns, as well as top-down priorities and support mechanisms. Through the creation of a typology I aim to provide a better understanding of how these two processes have intersected to create a particular configuration of the community energy landscape in Scotland.

⁵ The division of responsibilities between devolved and reserved matters for energy is complex. For example, the Renewables Obligation was introduced by the UK Government. However, the Scottish Government has a degree of operational control over, although some aspects of it supersede the limits of Scottish Government power (Wood, 2014).

4.5 A community energy typology

4.5.1 *Categories of community energy*

Based on the features listed in Table 4.1, I have identified five broad categories of community energy. A schematic overview can be found in Table 4.2.

‘Small is Beautiful’: This category represents small-scale renewable energy projects, which are developed by small, volunteer-run groups who own or manage a single material asset (e.g. building). It includes a range of organisations, representing both communities of place and of interest, but the latter often have strong local ties (e.g. sports clubs, church groups). Their asset provides a base for the group’s activities or for other local services and activities, but deriving an income from the asset is often not a priority (Aiken *et al.* 2011).

Comunn Eachdraidh Nis is one example of an organisation that fits in this category: this local historical society on the Isle of Lewis was founded in 1980, and runs both a museum and a café in an old school house. Despite being established nearly four decades ago, the group only began to develop energy-related activities in recent years, which could be an indication of confidence and capacity building associated with asset management (Aiken *et al.* 2011). The building from which the society runs its activities dates back to 1879 and lacked insulation, resulting in high energy bills. Following an energy audit of the building, the group obtained funding from the Outer Hebrides Community Energy Fund – supported by LEADER Innse Gall and Highlands and Islands Enterprise – in 2013 to install solid wall insulation (Community Energy Scotland, n.d.). In 2015 the group won a further £12,500 through the Marks & Spencer Energy Fund to install solar PV panels on the building’s roof, with the aim of further lowering the group’s energy bills.

The society's installation of both energy efficiency measures and an array of solar panels is indicative of projects in this category, with an emphasis on improving the comfort of a community facility and lowering energy bills. The projects are therefore generally small in scale with the energy generated primarily used directly in the building, and the remainder exported to the grid. While many of the earlier projects in this category received government grants, more recently groups, including Comunn Eachdraidh Niss, have obtained funding through the private sector, such as from the SSE Sustainable Development Fund or the M&S Community Energy Fund.

	Small is Beautiful (70)	Community Developers (211)		Innovators (26)	Energy Cooperatives (20)	Transition Towns (40)
		<i>asset owning (110)</i>	<i>non-asset owning (101)</i>			
Date founded	Pre-1990	Early 2000s	Mid 2000s	Late 1990s	Mid 2000s	Mid 2000s
Legal body	Unincorporated Association, Trust	Company, often with charitable status	Company, often with charitable status,	Company, often with charitable status	Cooperative	Mostly companies, often with charitable status
Type of organisation	Community hall associations; locally-based interest groups (e.g. sports clubs, churches)	Local development organisations, landowning	Local development organisations, not landowning	Local development organisations	Energy Cooperatives	Transition Towns, Local Environmental Groups
Other asset ownership	Buildings	Land (whole estates, other land), buildings	None	Varies: just over half own land or buildings	None	None
Ownership model	Full community ownership (equity)	Full community ownership (equity)	Full community ownership (equity)	Joint venture (shared equity)	Joint venture (shared equity; community shares)	Full community ownership (equity)
Technology	Solar, Heat pumps	Wind, Hydro	Wind	'Smart solutions', i.e. smart grid and storage; also wave, tidal	Wind	Energy saving, Solar
Size of installation	Micro (<15kW)	Medium-large (>100kW)	Medium-large (>100kW)	Medium-large (>100kW). Strong focus on distribution/storage.	Large (>1000kW)	Small (16-100kW)

(table continued)	Small is Beautiful (70)	Community Developers (211)		Innovators (26)	Energy Cooperatives (20)	Transition Towns (40)
		<i>asset owning (110)</i>	<i>non-asset owning (101)</i>			
Link generation - use	Direct use, or both direct use & sale to grid	Energy sold to grid	Energy sold to grid	Facilitating direct use	Energy sold to grid	Both direct use & sale to grid
Percentage of projects in category operational	42%	37%	23%	41%	48%	14%
Primary motivation	Increase comfort, lower energy costs	Generate local income	Generate local income	Increase self-sufficiency	Reducing carbon footprint; control pre-planned project	Reducing carbon footprint
Examples	Abriachan Village Hall, <u>Comunn Eachdraidh Nis</u> , <u>Westray Parish Kirk</u>	<u>Galson Estate Trust</u> , <u>Knoydart Foundation</u> , <u>North Harris Trust</u>	<u>Horshader Community Development</u> , <u>Point & Sandwick DT</u> , <u>Ullapool Community Trust</u>	<u>Foula Community Electricity Trust</u> , <u>Mull & Iona Community Trust</u> , <u>Fetlar Developments Ltd</u>	<u>Boyndie wind co-op</u> , <u>Dingwall Wind Energy</u> , <u>Edinburgh Community Solar</u>	<u>PEDAL</u> , <u>Portobello</u> , <u>Going Carbon Neutral</u> , <u>Stirling</u> , <u>Greener Kirkcaldy</u>

Table 4.2: Schematic overview of the typology and the different variables included. The number in brackets indicates the number of projects in each category.

‘Community Developers’: This is the most numerous category in this typology, covering 58% of all projects. These projects are often described as the Scottish ‘Development Trust model’ (DTAS 2015, Haggett and Quiroz-Aitken 2015, Slee 2015), Development Trusts tend to focus on the acquisition of material assets to provide the foundations for locally-based socio-economic regeneration (Zografos 2007, Wyler 2009), and are more entrepreneurially-inclined than those in the ‘small is beautiful’ category. The projects in this category are concentrated in rural areas, with more than two thirds of all projects in this category based in the Highlands & Islands region.⁶

As the primary motivation for these groups to develop a renewable energy scheme is to fund further local development projects, the projects tend to be medium-large in scale, with the electricity sold to the grid. Some of the organisations in this category have developed multiple projects, with the income generated by the first part-funding later projects. Nearly two-thirds (63%) of projects for which funding information was held, had received start-up funding through the Scottish Government’s CARES scheme. An increasing number of organisations choose to construct their energy subsidiaries as Community Benefit Societies (CBSs), allowing them to issue shares, rather than (primarily) relying on commercial loans to pay the development costs. Unlike cooperatives, though, CBSs need to guarantee that the project is primarily for the benefit of the local population, rather than its members.

This category has been divided into two subcategories, asset-owning and non-asset owning organisations, because of the practical and symbolic importance that asset ownership plays in the development of community energy. Unlike the ‘small is beautiful’ category, groups in this category will often have purposefully acquired assets in order to underpin local socioeconomic development.

The North Harris Trust (NHT) is one example of an asset-owning group that has developed a number of community energy projects after buying 25,900ha of

⁶ Defined here as the area covered by the Highland & Islands Enterprise agency, and which largely overlaps with the boundaries of the Scottish Parliament Electoral Region.

land in 2003: it has developed various micro-wind projects, as well as two larger projects as joint ventures: a 1500kW wind project with a wind turbine manufacturer and a 100kW hydro project with a financier. The NHT had initially hoped to develop these projects as wholly-community owned projects in order to maximise the income obtained from them. This income would help local regeneration and development in North Harris. After encountering a number of technical and financial challenges, however, the NHT decided to pursue a joint venture-approach. This approach ensured the projects were completed before their pre-accreditation, corresponding to a higher level of Feed in Tariff, was set to expire. Although this change in approach does affect the earnings the NHT will gain from the projects, the Trust anticipates that this lower income will still enable the group to focus on two of its core aims: the creation of employment and housing.

Asset-ownership is often seen as a key enabler for community energy, as it can reduce project risk and cost due to having the advantage of not needing to negotiate leasing arrangements to pursue developments (Haggett *et al.* 2013; also Mackenzie 2012, Smith and Seyfang 2013). The example of the NHT shows that asset ownership is not a guarantee for the successful development of a wholly community-owned renewable energy project (as I have also shown elsewhere: van Veelen and Haggett 2016), but that it can make the possibility of a joint venture more attractive to external partners. In broader terms, asset-ownership can be of benefit through potentially contributing to greater levels of security, control and influence; financial sustainability and leverage; and community cohesion and confidence (The Scottish Government 2015b). Groups who do not yet own other assets often see the development of renewable energy as the first step towards further asset ownership.

‘Innovators’: Whereas the emphasis in the preceding categories is often on trying to replicate ‘what works’, this category consists of projects that are at the forefront of technological innovation. These are often established by groups who have previously developed, or tried to develop, a renewable energy project. However, rather than developing another project based on tried and tested

renewable energy technology, these innovative projects are leading the way in terms of technical innovation for generating energy (wave, tidal) or in terms of integrating local supply and demand. In some cases, groups' participation in technologically innovative projects is directly the result of constraints experienced when developing previous projects.

Fetlar Developments Ltd is one example of a community group developing an innovative scheme combining local generation and use when the development of a 'simple' wind project was found to be impossible. With approximately 60 inhabitants, Fetlar is a small island, even by Shetland standards. While there is significant potential for wind energy in Fetlar, due to the nature of the electricity grid, the island is limited in the amount of renewable energy it can export. Therefore, the community group decided to construct a private wire and two thermal stores alongside two 25kW turbines, in order to use as much of the energy generated as possible locally. While the wind turbines were financed through a share offer issued in 2015, a CARES innovation grant and funding from HIE have paid for the wire and thermal stores. Once fully constructed, the scheme will enable a number of properties on the island to benefit from lower energy bills, as well as serve as a principle charging point for the island's electric minibus.

In addition to their emphasis on technological innovation, 'Innovators' are also different in their approach, specifically through their high levels of partnership working with intermediaries, Local Authorities or the private sector in order to achieve this innovation. However, as previous research has shown (e.g. Schofield 2002, Lowndes and Sullivan 2004), it is important to critically evaluate such partnerships in order to understand the exact agency and power of communities in these partnership arrangements.

'Energy Cooperatives': With only 20 energy cooperatives, this form of community energy forms only a small part of the sector in Scotland, especially when compared to the rest of the UK and other European countries (Haggett and Quiroz-Aitken 2015, Slee 2015). The Boyndie coop, established in 2005, was

the first wind farm cooperative in Scotland. Like the majority of energy cooperatives in Scotland, Boyndie coop was established with the support of Energy4All. An agreement between Energy4All and the commercial developer Falck Renewables enabled the Boyndie wind coop to buy a 4% share in a local wind farm owned by Falck, in return for a share of the net revenue. This model has since been replicated in other parts of Scotland with help from Energy4All, ensuring that three quarter of cooperative projects are medium to large scale wind energy projects, in which the cooperative, like Boyndie, has entered a joint ownership or benefit sharing agreement with a commercial developer.

What sets this category apart from the previous ones is the motivation, location and financial model used. Energy cooperatives tend to be primarily motivated by the environmental benefits of renewable energy, and cooperative principles which enable individuals across the country the opportunity to be involved in, and (financially) benefit from, renewable energy projects. Finance is primarily raised through share offers, and the co-op's profit is primarily distributed among its members. In the case of the Boyndie wind co-op, individual shares range from £250 to £20,000, with a total of £750,000 raised from 722 members. In 2010 these members bought a further share in an additional turbine. Adhering to cooperative principles of democratic control, Boyndie and other renewable energy co-ops in Scotland operate according to the 'one member one vote' principle in decisions affecting their co-op, regardless of the size of members' financial shares.

This is the only category in this typology in which community groups can be primarily defined in terms of shared interest rather than place, although in the case of the Boyndie co-op priority for investment was given to the 'local' community. Finally, Boyndie's location is typical of projects in the cooperative category: unlike projects in the earlier categories, the vast majority (69%) of energy cooperatives in Scotland are located outside the Highlands & Islands region. The future of this category is uncertain however, after the Financial Conduct Authority effectively ceased to register new cooperatives in the summer of 2014 (Hartley 2015).

‘Transition Towns’: This final category consists of projects developed by Transition Town groups and other, primarily locally-defined, environmental and sustainability groups. Unlike earlier categories, groups are as likely to be found in cities and towns as in rural areas. There are very few operational, collective energy-generating projects in this category. Rather, groups like Greener Kirkcaldy and Going Carbon Neutral Stirling prioritise smaller energy projects. For example, Greener Kirkcaldy, established in 2009, has been working with the Scottish Government programme Home Energy Scotland to offer advice about domestic renewable energy and energy saving measures, in addition to running projects around waste, food, transport, and other sustainability-related themes (Greener Kirkcaldy 2016). The group has also looked into a 150 kW community-scale solar energy project across three to five local sites, although this project was recently found to be infeasible.

Like Greener Kirkcaldy, these organisations tend to have been established fairly recently and have often received funding through the Climate Challenge Fund. This funding often pays for a small number of paid members of staff, to help develop activities. It can, however, be difficult for these groups to continue or expand their activities after the funding ends, which could be another explanation for the low number of collective generating projects in this category.

To summarise, this typology has attempted to capture five broad sociotechnical configurations, which together form the Scottish community energy sector. Any sector, but perhaps especially one that continues to change rapidly, is difficult to capture through statistics and strict categories. These categories are not static, and there are community groups who fit in multiple categories. It is not uncommon for organisations to develop more than one project, using different development models for different purposes. For example, the earlier mentioned North Harris Trust developed a number of micro wind turbines – which could be considered to fit in the ‘Small is Beautiful’ category – when the context to do so was advantageous, while simultaneously trying to progress their more complex income-generating projects. Here, both exogenous factors (e.g. changes

in planning regulations, financial mechanisms or technological developments) and endogenous factors (e.g. development of community confidence, capacity) means that groups community groups may move between categories as time progresses. This is especially the case for the group who have been labelled 'Innovators', whose relation with energy technologies is likely to have changed over time, often as a result of constraints experienced in connection to earlier projects. However, whilst the categories of this typology may change over time as the sector continues to develop, the constitutive dimensions that form the basis of this typology can continue to be used as the analytical foundation (Dobson 1996). The creation of a typology can therefore act as a starting point from where the drivers behind, and the impacts of, the pluralistic nature of the sector can be analysed in a systematic fashion. The next section will discuss some of these potential routes for further analysis.

4.6 Discussion: the causes and implications of diversity

The previous section has highlighted the pluralist nature of community energy in Scotland in a systematic fashion, introducing five key different sociotechnical configurations representing different aims, practices and motivations. Whilst some have argued that 'plurality is not a phenomenon to be categorized' (Schlosberg 1999, p.38) this chapter presents a typology of community energy projects especially in order to emphasise the diversity of sociotechnical configurations within the sector, moving beyond earlier descriptive approaches or categorisations based on dichotomies or hierarchies. Emphasising the different configurations within the community energy sector can improve understanding of the intersection between local capacities and priorities, and structural factors, such as the wider policy and energy landscape. This section will discuss some initial policy and theoretical implications that emerge from the typology.

4.6.1 Policy implications

A focus on the different forms of community energy, and their trajectories, enables a more thorough consideration of the different ways in which community energy has been framed and enacted as a solution to different social, economic, and environmental issues. Through paying more detailed attention to these different trajectories and their drivers, it becomes evident that community energy in Scotland occupies a negotiated space, the result of continuous interactions between bottom-up and top-down drivers.

The earliest projects in Scotland were driven strongly by a small number of off-grid communities' needs for reliable, affordable electricity. The Scottish Government identified the development of the renewables sector as a key priority soon after its establishment, and introduced support for community energy, delivered through its agencies (The Scottish Government 2006). As a result, support – in the forms of both funding and advice – became institutionalised and connected to government objectives early on. Correspondingly, Scottish Government documents show that the role of community energy appeared to change, away from providing innovative solutions for communities most in need, towards '*stimulating demand*' in order to contribute to centrally-determined environmental (carbon reduction) and economic (employment) outcomes (The Scottish Government 2006, p.46-7).

Changes to the sector later in the decade show the importance of both endogenous and exogenous drivers. The community land movement was one key driver behind the shift away from 'Small is Beautiful' projects towards using community energy as an income-generating tool. Not only did community landownership create a necessity for a long-term income stream, but also encouraged other communities to consider the possibilities of community energy-funded community-led development (McMorran *et al.* 2014, van Veelen and Haggett 2016). These changes were further enabled by changes to government incentives, with the UK Government's introduction of the Feed-in

Tariff, creating a 'feeding frenzy' for community groups seeking to generate an income (Bomberg and McEwen 2012, p.439).

I set out in Chapter One of this thesis that there are historic attempts to integrate energy generation and socio-economic development in the Highlands. This continues to be evident today, not least through this increased integration of community land and energy movements, and the role of the HIE agency (Strachan *et al.* 2015), which have ensured that community energy became increasingly seen as a rural community development tool. This is reflected in the spatial distribution of community energy, with 58% of projects located in the primarily rural HIE area, an area home to just under 9% of Scotland's population (HIE 2014) (Figure 4.1). Whilst this regional dominance may be partially explained by the availability of natural resources, or endogenous factors such as a strong shared history and community identity (Bomberg and McEwen 2012), consideration of the Scottish policy context offers further insights.

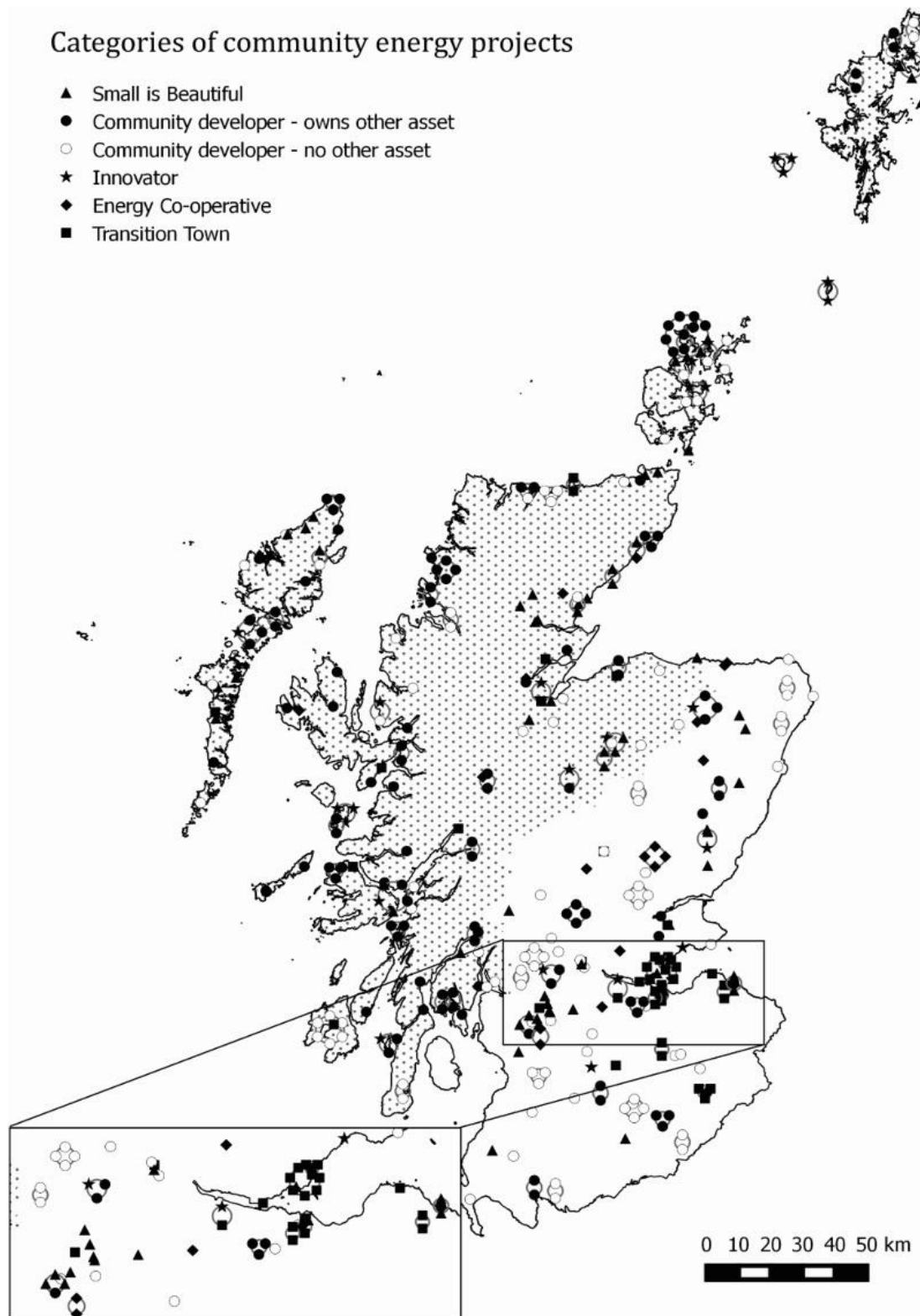


Figure 4.1: Spatial distribution of community energy projects per category. Note: 58% of community energy projects included in this analysis are in the overwhelmingly rural, and sparsely populated, Highlands and Islands region (indicated by the dotted background).

Although support for community energy has historically been available throughout Scotland, in the mid-2000s support for community energy was delivered by two agencies: HIE in the Highlands & Islands and the Energy Saving Trust (EST) elsewhere in the country (The Scottish Government 2006). While EST's remit is primarily energy-focused, HIE has historically viewed community energy as a community development tool, and part of the organisation's 'Strengthening Communities' remit (see The Scottish Government 2006). The subsequently established nationwide support organisation Community Energy Scotland continued to frame community energy as part of a rural development agenda (Strachan *et al.* 2015). In subsequent interviews, research participants indicated that they considered this framing of community energy as a *rural* development tool a logical continuation of the previously existent 'social clause' in Highlands energy policy, as explained in Chapter One. Recently, the role community land and energy can play outside rural areas has been emphasised in national policy, with the Scottish Government describing both as key parts of a broader 'asset-based' approach to community-led development across Scotland (HIE, n.d., The Scottish Government 2015a, 2015b). In terms of support for community energy, this is not least signified by the shift in the delivery of government support. Whereas this was delivered by Highlands-based Community Energy Scotland (which as Chapter Six explains, emerged from HIE), it is now delivered by a consortium of organisations, with their headquarters in Edinburgh. As I will explore in more detail in Chapter Six, this change (among others) represents a shift away from the framing of community energy as a primarily rural development tool.

The appeal of this asset-based approach lies in its premise that *geographically-defined* communities can create *local* economic opportunity and drive the development process by identifying and mobilising assets (Kretzmann and McKnight 1993, Mathie and Cunningham 2003; also see Community Empowerment (Scotland) Act 2015, Christie Commission Report 2011, Land Reform (Scotland) Act 2003). This preference for communities of place is also expressed through the support available for community energy groups. For

example, energy cooperatives cannot obtain the full package of CARES funding that communities of place have access to, unless they put in place additional rules which maximise the *local* community benefit (Local Energy Scotland 2015). Consequently, the cooperative format remains limited to those groups who do not require access to CARES start-up grants, and possibly as a result, remains little used. Going forward, the cuts to the Feed-in Tariff announced by the UK Government (DECC 2015) offer new challenges to communities seeking to generate an income from renewable energy generation. This may mark a return to grant-funded, small-scale projects or a continuation of the recent trend towards 'Innovator'-type projects: developing smart solutions to link local generation with local use. Which direction the sector will go in is likely to depend on a wider reframing of community energy within community and strategic objectives at both a Scottish and UK policy level.

This brief discussion has aimed to show that the configuration of the Scottish community energy can be, at least partially, explained by looking at the interactions between 'bottom up' and 'top down' drivers for community energy. Nonetheless, some caution is required. First, the discussion above is only an initial one. Further research is required to shine more light on the precise technologies of governance through which the sector is enrolled in policy, the rationales that underpin this, and its effects. Chapters Five and Six begin to address this by focusing on the role of intermediary actors in connecting communities and the state, and by discussing some of its effects. Second, as DeFilippis *et al.* (2006, p.680) caution, this does not necessarily imply that 'local organisations become subsystems of institutional intervention'. Whilst some organisations may be drawn into the orbit of the state, others may resist this or only partially cooperate (DeFilippis *et al.* 2006). Focusing on the diversity of configurations rather than dominance allows for further questions to be asked about the intersection between community organisations and the structures around them as well as distributions of power, in order to see how these have inhibited or facilitated the emergence of particular sociotechnical configurations (Walker and Cass 2007).

4.6.2 *Theoretical contribution*

The typology introduced in this chapter can also contribute to discussions in the field of energy geography, especially in analyses of the ability of the sector to influence broader structures and change the energy landscape. The commonly-used niche-to-regime model tends to presume the existence of shared visions around which change is mobilised (Shove and Walker 2007, Eames and Hunt 2013). However, as this chapter shows, the Scottish community energy sector is comprised of a broad range of socio-technical configurations. The previous section employed critical pluralism's focus on difference to begin to consider how these different configurations have emerged. However, looking forward, it also raises the question: how can these different, often locally-grounded, trajectories, concerns and practices be reconciled? As a number of activists and researchers have argued, whilst different, locally contextualised approaches are important, a shared vision around which different actors rally is required in order to challenge the current energy system (Loorbach and Kemp 2008, Seyfang *et al.* 2014, Westendorp 2015).

Others (Young 1990, 2000, Lawhon and Murphy 2012), however, have been critical of calls for consensus in diverse movements. Whilst they may acknowledge the need to build strategic alliances to achieve greater justice for disadvantaged groups (Haraway 1991, Jakobsen 1998), they have argued that appeals to unity and the common good can also be oppressive (Young 1990). It is important to understand the power differentials and uneven consequences for different stakeholders that emerge from the calls for a shared vision (Lawhon and Murphy 2012). Critical pluralism's attention for difference and diversity can help structure further questions around issues of recognition, difference and power, especially in relation to calls for a shared vision: how, why and by whom are the terms of change defined and with what purpose (Lawhon and Murphy 2012)?

For some, consensus may not only be undesirable, it may also be unnecessary. Taking his cue from Foucault (1980), Schlosberg (1999, 2004) has argued that

as power is multiple, and is experienced in localised, particular places, it must therefore be confronted as such. Further empirical and theoretical contributions could help improve understanding of the different ways in which community groups might affect the structures within which they operate, through considering the constraints and opportunities operating at different levels of different (categories of) community projects.

Whilst these issues remain open for further discussion, what I have attempted to do is to show both the plurality of the community energy sector in Scotland, and how this configuration has developed. Doing so through a structured analysis of the sector provides the basis for a more critical evaluation of the actors and processes that shape the sector, and to what effect.

4.7 Conclusion

My premise in this chapter was that a more analytical and structured approach to understanding the configuration of the Scottish community energy sector was needed. The creation of a typology can be seen as an initial step towards reducing conceptual vagueness, structure discussions around the scope, meaning and impact of community approaches to energy generation. This typology shows that the Scottish community energy sector is pluralistic in nature, but also dominated by groups who use the generation of energy as a means to further place-based community development. The potential role of the Scottish Government here raises questions about the interaction between community groups, the structures in which they operate and the way in which power is distributed. This chapter has only been a first step in this process, but future research could consider not only how broader societal and political structures have influenced the configuration of the community energy sector in Scotland, but also how the sector may in turn challenge these structures. I begin to do this in the subsequent chapters of this thesis, but further, comparative, perspectives could also be especially valuable in furthering understanding of some of these issues.

4.8 Epilogue

Whilst this typology sets out the current configuration of the community energy sector, it does not explain the causes or implications of this configuration. The focus of the next two chapters is therefore to focus on *how* these spaces for participation are shaped.

The initial premise of the typology was based on the notion of ‘critical pluralism’. At the heart of critical pluralism is the recognition of, and support for, plurality, based on different histories and experiences of individuals and community groups which account for the different practices, motivations and aims found within this movement. In addition to these community-specific factors, structural factors, such as the broader political landscape have also played a role in shaping the community energy sector.

The question about how to understand the interface between bottom-up action and top-down structures is by no means a new one. As the domain of community action and intervention in policy and practice has grown exponentially, so have the theoretical debates surrounding it (DeFilippis *et al.* 2006). As explained in Chapters One and Two, the academic literature on community often adopts one of two extremes: ‘either romanticizing the concept and thereby elevating it to primary rank as the focal point of societal initiatives, or objecting to its regulated limits and contradictions and thereby dismissing its importance and political utility’ (DeFilippis *et al.* 2006, p.673).

Chapters Five and Six seek to address this by focusing on how the internal community governance practices and their interaction with external contexts shape the spaces for community energy that were introduced in this chapter. First, Chapter Five will focus on the internal governance practices of community energy groups, and highlights how community groups increasingly seek to shape these practices based on their specific circumstances and priorities. Through recognising this diversity of approaches this thus continues to build on the pluralist perspective introduced here.

5 Negotiating energy democracy in practice: a critical analysis of the governance processes in community energy projects

5.1 Introduction

There are growing signs that a global energy transition is underway, with fossil fuels gradually being replaced by renewable sources. In 2014, renewable energy provided an estimated 19% of global final energy consumption and this percentage continues to grow (REN21 2016). Previous energy transitions (from waterpower to coal and coal to oil) show that major changes to energy systems were underpinned by broad social and geographical change. These potential transformational impacts of the current energy transition have, however, thus far received relatively little attention from researchers (Bridge *et al.* 2013). Instead, the well-known body of energy transitions research that emerged in the late 20th and early 21st century (e.g. Kemp 1994, 2010, Geels 2002, 2011) has been critiqued for its ‘conventional techno-economic thinking’ (Mitcham and Rolston 2013, Sovacool 2014a). Thus, whilst this body of social research has focused on the technological and decision-making processes required to change *energy* systems, there has been a lack of attention for how such changes might impact the social and economic relations embedded in energy (Lawhon and Murphy 2012, Eames and Hunt 2013, Weinrub 2014).

In response to this perceived narrow focus of earlier research, more recent research has shown a growing focus on the role of social, economic and political power in energy transitions, most explicitly expressed through concepts of energy justice and energy democracy (Weis *et al.* 2015). As I showed in Chapter Two, in recent years, social movement groups involved in disparate struggles around energy issues have begun to join forces under the banner of ‘energy

democracy'. While there is no set definition for 'energy democracy', most use the term to link decarbonisation with changes to who controls the means of energy production and distribution (Strachan *et al.* 2015). Here, the decentralised nature of renewable energy technologies is seen as an opportunity for 'genuine popular control over energy choices' (McHarg 2016, p.313).

For many this 'genuine popular control' takes the form of greater community control of resources (e.g. Giancatarino 2012, Cumbers *et al.* 2013, Vansintjan 2015, Carrilho da Graça and Gomes 2016, Morris and Jungjohann 2016, Powell 2016). Community and cooperative energy groups are seen as the 'ideal organizational entities' (Carrilho da Graça and Gomes 2016, p.3) in which 'individuals participate actively in decision-making' (REN21 2016, p.135). As such, community action is seen as a way in which energy issues can be tackled in ways that meet communities' needs and enriches them (Giancatarino 2012, Weinrub and Giancatarino 2015). Thus, proponents of community ownership see it as a 'third way', an alternative to both:

'public ownership, with its highly attenuated (representative) democratic control over arm's-length and centralised public corporations, and privatisation, with its illusory promise of individual empowerment through shareholder democracy and consumer sovereignty' (McHarg 2016, p.16).

The energy democracy movement underpins its claims for community provision of energy by attributing particular qualities to community energy projects based on their scale. There is a tendency in the movement to assume rather than demonstrate that community projects are more democratic or just (McHarg 2016). In other words, there is a risk that advocates fall into the 'local trap' (Purcell 2006) where generalisations are made about the quality of projects based on their scale. Additionally, it risks perpetuating the idea that community organisations are willing, ready and able to provide the democratic functions expected of them (see also Little 2002).

Recently, calls for energy democracy through greater community control have begun to transcend social movements through gaining the attention of policy-makers (e.g. Labour Party 2016, Powell 2016) and researchers (e.g. Angel 2016b, McHarg 2016). A more critical analysis of the assumptions underpinning the calls for greater energy democracy is therefore very timely. Chapter Two provided this by analysing the conceptual roots of energy democracy. This Chapter builds on this by conducting an empirical analysis which demonstrates how democratic processes are established and negotiated within community energy groups. It focuses on three key processes which have been deemed critical to democratic energy governance but for which limited empirical evidence is available: decision-making (Farrell 2014, Kunze and Becker 2014), accountability (Chavez 2015, Weinrub and Giancattarino 2015), and dispute resolution (McHarg 2016). The community-level focus was chosen because the apparent democratic nature of community energy groups needs to be better understood before their potential to contribute to the democratisation of the energy system more broadly can be considered. As such, this research seeks to highlight that community energy projects can contribute to greater democratic governance of energy resources, but that they also experience barriers and tensions that need to be overcome when seeking to achieve greater energy democracy.

5.2 Energy democracy – an opportunity to achieve more just outcomes?

In recent years there has been a growth of community owned renewable energy projects across the globe (REN21 2016). As I explained in the previous chapter, community energy initiatives are popular among policy-makers, activists, and practitioners as they are thought to help meet CO₂ reduction targets and deliver additional socio-economic benefits. The literature on energy democracy adds to these discussions on community energy by framing discussions around energy resources explicitly as social struggles (Weis *et al.* 2015). Invoking associational notions of democracy, community-level governance of energy resources is

presented as an opportunity not just to produce clean energy or deliver social benefits, but to fundamentally reshape the social, economic and political relations embedded in these Megawatts.

Such notions of participatory, sustainable resource governance have been referred to by Schlosberg (2013) as sustainable materialism, which considers the addressing of environmental conditions as the basis for social justice. The sustainable materialist view seeks to not just resist, but reconstruct practices of production and consumption, and to (sustainably) rebuild the material relationships we have with resources we use every day (Schlosberg 2013). These sentiments are echoed by the energy democracy movement:

*‘[The] vision of a democratized energy future includes an informed and conscious community that understands the **right** relationship of people to natural resources and the need to live in ecological balance’ (Weinrub and Giancattarino 2015, p.4 - emphasis added)*

Thus, it shifts the focus away from individualist responses to climate and environmental issues to a collective focus on the rethinking and redesigning of processes and institutions that are connected to meeting basic needs such as food, water and energy (Schlosberg 2013).

For many, direct involvement of communities and other civil society groups in energy governance is a key part of this process (e.g. Cumbers *et al.* 2013, Weinrub 2014, Carrilho da Graça and Gomes 2016, Morris and Jungjohann 2016). Through greater community control, it is argued that participation in decisions around energy is more inclusive (Kunze and Becker 2014), ensuring decisions are more representative (Vansintjan 2015) and with greater opportunity to hold decision-makers to account (Duda 2015, Weinrub and Giancattarino 2015). In other words, proponents of community governance see local, collective action as an opportunity for cooperation through which shared values can emerge (see also Tam 1988). The emergence of such shared values are in turn deemed to contribute to a ‘more sustainable relationship between

just communities and a working environment' (Schlosberg 2013, p.49, also see Weinrub and Giancattarino 2015).

5.3 Democratisation through decentralisation?

By framing discussions around energy as social struggles with the aim to disrupt the relations embedded in current energy systems, the energy democracy movement is often presented as deeply political. Nonetheless, the view with which it is associated – of community-level governance as morally virtuous – appear more closely aligned with orthodox communitarians' views of communities as having a natural, dominant moral voice which ensures they do the 'right' thing (Little 2002, Taylor Aiken 2015). These 'mythic communities' (Agrawal and Gibson 1999, p.638) are often framed as homogenous populations where locally evolved norms and collaborative processes help to manage resources (more) sustainably and equitably (Dalby and Mackenzie 1997, Agrawal and Gibson 1999, Featherstone *et al.* 2012, Taylor Aiken 2014, 2015). As Taylor Aiken (2015) observed, 'community' has thus come to imply both a normative (social) good and a direct correlation of 'green'. As such, communities - whilst seen as part of larger political struggles - are in themselves framed as apolitical.

This view of the apolitical community and the assumption that community action creates desirable outcomes has, however, been much criticised:

'Far from providing guarantees of liberty, equality, and concern for the public interest, organisation of political life by small constituencies tends to enforce conformity, discriminate in favour of elites, and eliminate public values from effective political consideration.' (McConnell 1966, p.6)

This critical view has been expressed by key political theorists such as Young (1990) and Edwards (2009), as well as in more recent empirical work that has analysed the growing role for communities in UK energy and sustainability governance (Walker *et al.* 2007, 2010, Creamer 2015a, Taylor Aiken 2015, Simcock 2016). Those who have cautioned against a presumed connection

between ‘forms and norms’ – that decentralised, community action equals democratic or just processes and outcomes – have often done so for two key reasons: difference and inequality. These two will be considered in more detail below.

The above quote from McConnell (1966), as well as work by others (Young 1990, Phillips 1996, Little 2002, Islar and Busch 2016) shows that in their pursuit of shared interests communities can (inadvertently) create an atmosphere of conformity and homogeneity that stifles dissent. Others have therefore advocated for an ‘agonistic pluralism’ that legitimises dissent and debate in (community) governance, arguing that the democratic qualities of civil society are as much rooted in social mobilisation and contestation as in cooperation and civiness (Mouffe 2000, Taylor 2011, Anderson *et al.* 2016, Islar and Busch 2016). Thus, for these authors, difference or dissent is not simply to be ignored, overcome or stifled through a bland consensus (Anderson *et al.* 2016), but to be recognised, validated and, from there, possibly negotiated.

Islar and Busch (2016) have suggested that in order to negotiate differences in community energy governance, an open and inclusive process is therefore required. Others have argued, however, that decentralised governance is not necessarily more inclusive or equal. Rather, governance by community or voluntary associations can be ‘arenas for personal ambition and power as well as sacrifice and service’ (Edwards 2009, p.44; see also Young 1990). For those sceptical of the links between forms and norms of governance, community governance simply signifies a change in scale, with the *local* distribution of power becoming the primary determinant of policy (Lane and Corbett 2005).

Researchers ascribing to this latter view have therefore argued that the decentralisation of natural resource management can serve to amplify the importance of both material and symbolic contests among different actors at the local level. When seeking to develop an inclusive community project it is therefore important to consider the different patchworks of concerns and interests that exist within a place, and the power relations between them

(Kearns 1995, Shortall and Shucksmith 1998, Creamer 2015b, McMorran *et al.* 2014, Grossmann and Creamer 2017). This is arguably especially important for community energy groups, who manage and distribute, sometimes substantial, sums of money (Walker *et al.* 2010, Bristow *et al.* 2012). Research on community resource governance in developing nations has long been concerned with the distorting effects that local power relations may have, with participation either limited to local elites, or with residents feeling unable to counter the opinions of local elites at public events (Chambers 1995, Gronow 1995, Kearns 1995).

This view has also been expressed by a small number of authors writing on community energy, who have argued that calls for greater participation ignore the more critical view that participation is not always a positive experience with a positive outcome for all (Hayward *et al.* 2004, Middlemiss and Parrish 2010, Callaghan and Williams 2014). Similarly, whilst some see energy democracy as a way to frame the struggle of disadvantaged communities to take control of energy resources (Weinrub and Giancattarino 2015), others have argued that individual and community participation in energy and environmental projects is often limited to those in higher socio-economic groups (Angel 2016b, Grossmann and Creamer 2017). Kearns (1995) has described this as the conundrum of democratic governance: the more participatory democracy becomes, the more it risks exacerbating existing power inequalities.

Because decentralisation has the potential to reinforce existing inequalities and community relations it is therefore important to consider both the institutions and practices at local level to ensure that existing differences and power relations are not simply reproduced (Kearns 1995). This research seeks to analyse three particular, but related, practices of democratic governance in order to understand how these may help overcome or reinforce issues of difference and inequality in community-led projects. The focus on democratic practices is informed by the understanding that ideology or institutional features (e.g. structures, rules and laws) affect, but do not necessarily determine or guarantee, good practice (Fox 1992, Marinetto 2003, Edwards 2009). A

greater consideration of governance practices enables an understanding of how relationships between different individuals and groups are negotiated, and how contradictions and tensions emerge, and are possibly overcome (Young 1990, Little 2002, DeFilippis *et al.* 2006, Edwards 2009). Additionally, this research contributes to the literature by adopting a broad, rather than single case study, approach. This approach has value in that it can identify both common and distinct factors that influence the negotiation of democratic practices by community groups.

5.4 Community energy in Scotland

Scotland was chosen as a case study for a number of reasons. First, energy democracy is becoming an increasingly important issue in Scotland. The Scottish Government has set targets to generate the equivalent of 100% of electricity demand from renewable sources by 2020 (The Scottish Government 2011a). Furthermore, in April 2016 Chris Stark, Director of Energy and Climate Change at the Scottish Government, announced at Local Energy Scotland's annual CARES conference that the future for energy in Scotland is one that is 'localised, democratised and mutualised'. Whilst the Scottish Government has had policies in place to support community energy generation for a number of years (The Scottish Government 2006, 2013b), this is the first time they have incorporated the notion of 'energy democracy' in official discourse. This stands in contrast with Germany in particular, where there is a well-established energy democracy movement in Germany, with an associated growing body of evidence (Morris and Jungjohann 2016, Angel 2016a, Kunze and Becker, Weis *et al.* 2015). As I showed in Chapter Two, in Germany, energy democracy is not solely seen as the future, but as something already happening. There is currently, however, little evidence for the forms, practices and outcomes of energy democracy outside Germany. This emerging focus on democracy and its links with local energy in Scottish politics therefore opens up the opportunity to enrich the evidence base by identifying similarities and differences between different national contexts.

In addition to this emerging focus on democratic energy governance, community energy in Scotland is also part of a broader trend of decentralisation and community-led development in Scotland, as I showed in Chapters One and Four of this thesis (see also The Scottish Government 2014a). In recent years, a number of policies have been introduced to facilitate community ownership of assets, well as enabling communities to play a greater role in decisions about public services (The Scottish Government 2011b, 2015c, 2015d). This has helped to ensure that community energy in Scotland is overrepresented compared to the other countries that make up the UK (Bomberg and McEwen 2012, Seyfang *et al.* 2013), and where notions of ‘energy democracy’ remain on the political margins.

According to a Scottish Government civil servant, this growing role for, primarily place-based, communities has been based on the belief that, by their very nature, communities-of-place need to balance competing demands, and therefore the way they manage their resources is for the general good of the people in that area (private correspondence, 2015). Not only is community-led-development therefore expected to lead to improved outcomes in those communities, but also to create a more actively engaged electorate, benefitting society as a whole (The Scottish Government 2014b). Again, these (presumed) links between community-level action and improved local and national outcomes warrant further investigation.

Finally, Scotland makes an interesting case study due to the plurality of the community energy sector, as set out in Chapter Four. Scottish community energy projects cover a wide range of models and practices, from community associations installing solar panels on village halls to a 9MW wind farm owned by a community trust to cooperatives who own shares in larger developments. This diversity of approaches and associated legal and organisational models stands in contrast with the universalist claims made for community governance – as shown above. Using Scotland as a case study therefore enables an analysis of this issue of local particularity versus universal democratic claims in greater detail.

5.5 Methods

Research reported here is part of a larger project that examined the development of the community energy sector in Scotland. This chapter focuses on the experiences of community energy groups in negotiating democratic practices. In order to capture the diversity of the sector this research adopted a broad approach, including research with 15 community groups across Scotland. Groups were selected to represent the five different types of community energy groups in Scotland identified in Chapter Four. In total, 39 in-depth interviews were conducted between 2013 and 2016. An overview of the groups included in this study is provided in Table 5.1.

In most of the community groups studied (groups 4-15), one or two employees or voluntary board members of the group were interviewed, but more extensive research was conducted with groups 1-3. In these cases, a greater number of community group members were interviewed as well as local residents not actively involved in the projects. A small number of participants (4) were interviewed more than once in order to clarify or expand on earlier responses.

The majority of these interviews were conducted face-to-face, while eight were conducted by phone. Interviews varied in length between 30 and 150 minutes. Interviews were transcribed verbatim and analysed through thematic coding in NVIVO. Documentary analysis of planning applications, news reports and community groups' websites, supplements the interview data. Due to the sensitive nature of some of the interview data, the decision has been made to remove all identifying features.

Community Group (CG)	Year founded	Technology	Scale ⁷	Type (based on Chapter Four)
CG1	2005	Biomass; hydro	Medium	Community Developers
CG2	2010	Hydro (joint venture); wind	Medium	Community Developers
CG3	2006	Wind	Medium	Cooperatives
CG4	2010	Solar	Under consideration	Transition Towns
CG5	2009	Wind	Small	Small is Beautiful
CG6	2002	Wind (joint venture); biomass, hydro	Medium	Community Developers
CG7	2004	Wind	Large	Community Developers
CG8	2013	Solar	under consideration	Small is Beautiful
CG9	2013	Hydro	Small	Community Developers
CG10	2008	Hydro; smart grid	Small	Innovators
CG11	2013	Wind	Medium	Cooperatives
CG12	2005	Wind	Large	Community Developers
CG13	1999	Wind	Medium	Community Developers
CG14	2000	Wind; smart grid	Small	Innovators
CG15	2008	Hydro; wind	Medium	Community Developers

Table 5.1: Overview of the community groups included in this research.

⁷ 'Scale' refers to the size of the technology that is community-owned. For joint-ventures, the proportion owned by the community, rather than total size, has been reported. As in Table 4.2, 'micro' = <15kW, 'small' = 16-100kW, 'medium' = 101-1000kW, 'large' = >1000kW.

The mixed approach of breadth and depth was chosen for two reasons. The choice for breadth was made because this research seeks to explore the varied experiences of democratic governance across different types of community energy. In doing so, it seeks to complement previous research (e.g. Simcock 2016) which has provided a rich and detailed account of decision-making processes in a single case study. The choice for a larger number of cases allows this research to highlight the breadth of experiences as well as identify common features and challenges, which may have been missed when focusing on a single case. At the same time, this research recognises that governance processes are a complex issue, and that interviews with community leaders alone may only paint a partial picture. This is the reason for the choice to select three groups for follow-up interviews with both community leaders and members not actively involved in the groups' governance.

5.6 Findings: the democratic qualities of (internal) governance processes

The community groups included in this study, despite their different focuses, tend to have similar organisational arrangements in place. Approximately half the groups in this study rely solely on volunteers. In those cases, the voluntary governing body (e.g. a board of directors) are responsible for both strategic governance and day-to-day decision-making. The other half of organisations had one or more paid staff members responsible for day-to-day decision-making, with the governing body responsible for strategic governance. In both cases, the wider membership of the organisation forms another pillar of governance, to which the governing body is accountable. In most cases, participation in the organisation's governance by its wider membership took three forms: participation in an annual AGM (including the election of members of the governing body), community ballots on key decisions, and informal engagement. The relationship between members and the governing body is defined in a governing document, such as a Constitution (Co-operatives UK 2011). Despite commonalities in organisational structures, there are significant

differences between the governance practices of the groups. The following three sections will explore in more detail how communities shape democratic governance, and the relation between the different pillars of governance. It will do so by focusing on three aspects of governance: decision-making practices, accountability procedures and dispute resolution.

5.6.1 Inclusivity in decision-making: 'local leaders' versus broad engagement

The potential of community-owned energy projects in contributing to greater energy democracy has been primarily attributed to the potential for influencing decision-making, where ideally 'the greatest number of people directly affected by a project should hold as large a power of [...] decision-making as possible' (Kunze and Becker 2014, p.9). However, as this analysis shows, active participation is often limited, raising questions about leaders' representativeness of the wider community.

Many of the community groups included in this study aspire to broad-based participation and engagement in decision-making. However, for reasons of practicality, most groups have adopted a form of governance that mixes representative forms of governance with participatory ones. These groups have two key moments when the wider membership can have their say on proposed developments: during a community consultation and a ballot. Although these form an important part of the development process, these engagement opportunities are often set up to gauge or gain support for the project, rather than influence the project's details:

'The community were consulted at length regarding the permissions to develop. They weren't consulted regarding the structure of the finance. That decision was made by the board, who are elected to represent the community. I don't think the person on the street has a clue how the turbines are funded, which does come back and hit us.' (CG9, employee)

Some interviewees felt this set up worked best for everyone and that community members seem to have no desire to be consulted more often. Instead, members are often content to leave the staff and directors of the community organisation *'to just get on with it'* (CG2, general member). This assertion that many members have no desire for greater involvement also appears to be confirmed by groups' reports of low attendance figures at their AGMs and their difficulty in attracting new Directors.

Nonetheless, interview data indicated that there might be (hidden) barriers to participation, which reinforce existing community relations and hierarchies. Especially in rural areas, it is an often-heard complaint that it is *'always the same people'*, or *'the usual suspects'* who are involved in community governing bodies (CG1, employee, CG2, board member; see also Creamer (2015b), Markantoni and Quiroz-Aitken (2016), and Simcock (2016)). One interviewee argued that the involvement of a small group of people in community organising happens almost naturally: *'Once you have been involved with something, you get marked: "go get him, he is good at that."*' (CG2, board member).

In both these interviews and the literature (Haggett *et al.* 2013, van der Schoor and Scholtens 2015, Martiskainen 2017), the successful development of a project was often attributed to having these 'local leaders' (CG3, board member) involved in projects' governing bodies. Interviewees indicated that having confident and competent community leaders was deemed essential in order to successfully manage complex community energy projects, but also to convince the wider community of the feasibility and importance of the project.

The frequent involvement of a small number of people in community projects has, however, also begun to raise concerns regarding these leaders' representativeness of the wider community, not least because community leaders often were similar in age, gender and/or socio-economic background. Whilst some interviewees deemed the continued reliance on a small group of local leaders either a necessity or an inevitability, others were more critical. These critics argued that a lack of diversity not only raises questions about

governing bodies' abilities to represent the concerns and interests of the wider community, but also that this could be detrimental to the quality of decisions made:

*'The minute we [the first female Board members] went in there we started bringing up different issues. You could see on the faces of the other board members that they were like 'oh, we never thought of that'. Literally things were just rubber stamped [...] This is what we talk about, when we talk about diversity. That people are willing to challenge things without first subscribing to the, what's the word, group think.'*⁸ (CG3, board member)

In response to these concerns of the wider membership, some community energy groups indicated they have become more proactive in their recruitment to encourage a more representative governing body. This was based on a recognition that their previous approach of 'passive inclusivity' (Grossmann and Creamer 2017) meant that barriers to participation sometimes remain:

'[The] board was of an age, and of a particular gender. That was recognised, and we needed to do more. We just had an open evening, a bit of a social evening, it was an open invitation to anybody, but we also specifically targeted folk to come by and try and break down the barriers of maybe some of the assumptions of what it was like to be a director of a charity.' (CG13, employee)

These more pro-active approaches to recruitment have taken various forms, depending on local circumstances and priorities. Some community bodies have set quotas, such as the group which ensures that its governing body is geographically representative of its membership, with one director drawn from each village the group represents. Another group has set quotas to ensure the community directors reflect the age distribution of the wider community. Others have tried to improve their diversity through more informal means, for example by proactively asking women or young members to join the board. In the case of youth members, the opportunity to attend regular meetings was

⁸ The notion of 'groupthink' was popularised by Janis (1982), and describes a set of group dynamics where high levels of amiability and 'esprit de corpse' (Janis 1991, p.262 in Cooke 2001, p.112) inhibit independent critical thinking that leads to bad or wrong decisions being taken.

considered to benefit both the group and the individual. For example, youth members would bring a new perspective and suggest new outreach ideas. Similarly, for the youth members it has given them a chance to observe decision-making processes in member-led groups:

'[...] before, I had this idea that, you know, here is a meeting going on, and there are lots of business people. It was... it was quite an inaccessible scenario to me. But after being part of it, I can see that it is just people. [...] Having already done it, might actually make me more likely to do that myself with other people or take part in new ones, because it has got rid of the unknownness that I had before.' (CG3, youth board member)

It is, however, interesting to note that many groups who have started to take active measures to improve the diversity of their boards, have only begun to do so after their energy project was built. The timing is interesting, as that point groups have fewer external pressures, such as tight deadlines to meet, and are primarily concerned with the ongoing management of the technology and the distribution of income gained from the sale of energy.

Groups that have begun to address the issue of access to decision-making procedures (labelled 'external exclusion' by Young 2000), may find that internal forms of exclusion continue to persist. These may include an unwillingness to speak in meetings due to (perceived) power differentials or not having one's opinion considered. One interviewee gave the example of their participation in another cooperative where a female board member had tried to challenge the other, male, committee members:

'At that time the group board was quite traditionalist. They had somebody there who was a senior person, who was a very good businessman, it was quite difficult challenging all of that. And she challenged it in a very simplistic way and she was just...with humour actually. And that wasn't thought well off.' (CG3, board member)

Nonetheless, this interviewee felt that through a continuing focus on inclusivity and diversity, such internal forms of exclusion may slowly be eroded.

To summarise: inclusive participation and open exchange are often desired by groups. Although some are taking active steps to achieve this, others see it as something of secondary importance. Secondly, as the latter part of this section shows, even when attempts are made to include a greater diversity of members in the governing body, this does not guarantee barriers to inclusive participation have been overcome and internal forms of exclusion may persist.

5.6.2 Accountability of decision-makers

The previous section showed that the majority of decisions in the community energy groups included in this study are made by a small group of people. In this research, this is primarily done by a group's governing body, or in some cases paid staff are responsible for day-to-day decision-making. As decisions are often made by a small number of people, it is therefore important to consider how decision-makers are held to account. In order to ensure that decisions are made in the best interest of the community and the influence of individuals is kept in check, groups are required to adopt procedures and put structures in place that ensure accountability both towards community members, but also towards any outside bodies such as funders. The focus here is specifically on internal responsibility towards members, rather than outside agencies.

Interviews showed that groups pay varying degrees of attention to the issue of accountability and oversight procedures. While most have received advice about legal forms and decision-making and accountability procedures, this may have been many years ago. Groups' circumstances and activities often change over time, with the result that, to a greater or lesser extent, communities '*figure out*' governance and accountability procedures '*as we go along*' (CG13, employee; CG9, board member). This, however, has the effect that in some cases, accountability procedures are not always followed, even if they are officially in place. Three main reasons were highlighted in the interviews as to why internal accountability procedures are not followed in some cases: a lack of

active members with sufficient time and knowledge, pressure to meet tight deadlines, and the increasing complexity of projects and organisational structures.

As noted in the previous section, many community energy groups are run by a small number of volunteers, who – especially in the small rural communities where many projects are based - are often also involved in other community affairs. One example included in this study concerns an island with approximately 60 adult residents. Around a third of these are actively involved in local community groups, of which there are five. Many of these active residents are therefore involved in multiple activities and governing bodies, in addition to their day job. Similar situations were observed in other rural communities. One staff member of a community energy group noted that, despite the board members' best intentions it is not always possible for them to invest the time needed to oversee the development of lengthy, and increasingly complex energy projects:

'Part of it is lack of understanding that it is their role [to set the guidelines], but a lot of it is lack of capacity to do it, because they're actually the core of the economy here, and they can't run their own businesses and run as volunteers a very demanding business that is doing ambitious and innovative things as well.'
(CG10, employee)

This lack of time, and possibly understanding can, inadvertently, risk undermining a group's efforts to successfully establish energy projects. In two cases included in this study, individuals felt compelled to make key decisions with little oversight. As they deemed their projects' completion to be at risk they took decisions without their group boards' knowledge or approval:

'[The Board's] conclusion was, that this is too risky. [...] I just ignored the board's decision and carried on working on it, getting an agreement in place that protected shares, that protected investors. A month later I said to the board 'Can we meet again? It's going to be a one-issue meeting, and I'm going to explain to you why you can't stick to the decision you made last time'. So, we had another meeting and they were kind of 'alright, okay, we've been fools'. We were then going again, but in that month, I had been completely ignoring what my board had said, and carrying on regardless.' (CG10, employee)

'To tell you quite bluntly... I have lied to people [...] in order to take a calculated risk. [Otherwise] they wouldn't have gone ahead with the project.' (CG9, board member)

The individuals involved in these cases attributed their decision to either lie to or ignore their governing bodies to two factors. First, what they saw as a lack of understanding on the Board Members' behalf. The second factor, however, was deemed especially important: the time pressure they, as project leaders, were under to complete their projects. Some felt that they had no choice but to make decisions without gaining their board's approval first, in order to meet external deadlines:

'When you work on such tight timelines and people are volunteering, it needs one person to try and hold everything together. [...] There is a very clear route to get this done. And... if anyone questions that, messes anything up, that could destabilise the whole thing. That's a risk I'm frankly not willing to take.' (CG9, board member)

The increasing complexity of projects, and organisational structures, was identified as a third reason for a possible lack of accountability. Particularly, organisations which have taken on additional responsibilities or established multiple energy projects, often find their governance structure to be increasingly complex, involving one or more subsidiary organisations. This growth in institutional complexity brings with it new challenges, especially for those with a small local population from which to draw volunteers. Groups require knowledgeable volunteers with sufficient free time available, whilst also seeking to broaden participation and limit conflicts of interest:

'We have to tread a very careful line so the community doesn't think a director is lining his pockets from the Trust's activities. I think it was the last board meeting, the chairman sat outside because he couldn't be part of those discussions due to a conflict of interest. We are getting sharper at dealing with that.' (CG6, employee)

Interviewees indicated that this increasing institutional complexity is not always immediately accompanied by the implementation of new accountability procedures. Whilst advice from external organisations is available, groups often learn about good governance as they go along. It can be a steep learning curve, sometimes risking a project or group's survival altogether:

'There was a 3 or 4-year period when the Development Trust and Trading Subsidiary were forming and then the turbine went up. But the Chair and Vice Chair were still trying to manage the Trust through the Trading Subsidiary, which caused a lot of issues with regards to governance, because it was almost like the tail wagging the dog. Trying to employ people within the Trading Subsidiary to run the Trust. It became problematic. In fact, it was on the brink of failure.' (CG13, employee)

This last organisation recently undertook a 'governance health check' offered by support agencies, where impartial outsiders discussed governance issues with the group, explained legal requirements and set out examples of best practice. However, whilst this advice was deemed helpful, some interviewees who had also participated in similar health checks indicated this does not change the nature of the problem: that they are reliant on a small number of volunteers to develop a growing number of increasingly complex projects, often under significant time pressure.

This section, and the previous one, showed that it can be difficult for community groups to negotiate tensions around how to be inclusive and representative of the wider community whilst meeting '*very, very, very tight deadlines*' (CG9, board member), primarily resulting from changes to the Feed in Tariff rate which affects how much communities will earn from their projects. As many decisions around the details of community energy projects are made by a small

number of individuals it is important that these individuals can be held to account by the membership, if necessary. However, the interview data showed that accountability procedures may not be followed because of a lack of active members with sufficient time and knowledge, a pressure to meet tight deadlines, and the increasing complexity of projects and organisational structures. A (perceived) lack of representativeness and accountability from local leaders are challenges in themselves, but can also be a source of disagreement in communities or impede the satisfactory resolution of disputes. The final section will consider this in more detail.

5.6.3 The challenges of dealing with disagreement

Interviewees agreed that disagreements and differences of opinion are a normal part of community life. Interviewees therefore did not necessarily think the presence of disagreements were a cause of concern, but did indicate that it is important for a community group to consider how they handle disagreements:

'You'll always have disagreements in a community. The strength of a community depends on how you solve those disagreements.'
(CG2, board member)

From the interviews it emerged, however, that some community energy groups struggle to deal with disagreement and conflict. One factor that was highlighted during the interviews is the blurred personal/professional boundary that employees or volunteers in these projects can experience. The strength of community-level action is often attributed to the close connection between those actively developing the project and the wider community. However, some of the project staff and volunteers interviewed, especially those in small rural communities, reported that 'being embedded' in the community can also make it difficult to separate their professional from their personal lives. The ability of community residents to interact informally with local leaders can be considered a positive aspect of community-led development, but it also means that disagreements and differences of opinion are not only expressed in formal decision-making settings, such as groups' meetings, but also in informal local

spaces. One interviewee explained that this had caused her to retreat from community life: *'I tend to work from home and isolate myself so I don't have to deal with some of the negativity. It can make me feel miserable.'* (CG10, employee)

This reluctance to confront, often ongoing, criticism is very understandable. However, as the experience of a different group shows, it could potentially have unintended consequences and contribute to a downward spiral in community relations. This other group in the North of Scotland reported similar difficulties, especially with people who had long opposed the various activities the group was involved in. One local objector admitted that his disagreement with the group over a proposed wind turbine had *'nothing to do with energy, but everything to do with community'* (CG2). In other words, whilst arguments against community energy projects may be made in terms of technological or environmental details, this may mask the social and power struggles behind such disputes. In this case, community leaders viewed this detractor's arguments as simply the latest chapter in the historically antagonistic relationship with the group's leaders. Nonetheless, some people in the community viewed community leaders' reluctance to engage with this detractor, and others' arguments, as an attempt to silence alternative voices.

While many groups reported experiencing some vocal opposition within the community, this often fades into the background over time. In the case of CG2, however, a court case was required to resolve the dispute around their community wind turbine.⁹ Although the Court ultimately ruled in favour of the group, thus paving the way for the project to go ahead, the Court did question the group's handling of discontent. This was particularly as prior to the case the community group had written to the objectors, stating they would be liable for

⁹ The Scottish Land Court has to give consent for projects proposed on a certain type of land (croft land). This takes place after planning permission has been granted and is usual a straightforward process. The case referred to above was the first time the SLC received objections to a community scheme. As a result, the Court travelled to the community to observe the scheme and scheduled a hearing before deciding whether to approve the scheme.

all legal expenses were the group to win. The Court questioned why the group had sought to 'stifle the expression of objections':

'We would question whether a body which places such an emphasis on the "community" aspect of its proposed development does itself any favours in being seen to act in such a heavy-handed manner against a dissenting minority within a small community. It seems to us that if indeed the objections of the grazing shareholders were as unmeritorious as [name redacted by the author] contended, the interests of [the community group] may have been better served by having them properly ventilated before the Court and exposed as such, rather than by seeking to suppress them, thereby potentially leaving those objectors who withdrew their objections under protest with a lingering sense of grievance towards the development and its promoters.' (Scottish Land Court 2016)

This example shows the importance of arbitration in cases of community disputes. As a staff member of another community group noted: *'There is often the assumption that a community are working as one, but this is not the case.'* (CG10, employee). Differences and disagreements are part of community projects as much as any other (energy) projects, but can be difficult to handle. The difficulty in handling discontent can partly be explained by the blurred personal/professional boundary that many community leaders experience, and is further exacerbated by the pressures described in the previous sections. Due to the pressure to deliver timely outcomes, engaging with detractors is often considered a distracting and time-consuming process that can sap the energy from staff and volunteers.

Nonetheless, as the Court decision above indicated, allowing objections to be vented may help to combat a lingering sense of grievance towards the community group and its activities. Additionally, in this case these objections not only delayed the project's development, but also resulted in a significant legal bill. Considering the time and financial pressures these groups are operating under, this is something many can ill-afford, and which early intervention may be able to prevent.

5.6.4 *'Types' of community energy and democratic governance*

While this section is not included in the manuscript submitted for publication, I briefly want to address the connection between different 'types' of community energy and democratic governance. I believe it is important to do so, because the selection of cases was based on the typology presented in the previous chapter. The categorisation of this diverse sector into five main categories raises the questions whether different forms of governance can be observed in these different categories. Due to the nature of qualitative research I did not expect to establish clear-cut correlations from which generalised conclusions could be made. Rather, I wanted to see if it was possible to observe common or different governance practices, in this particular context, at this time.

I had anticipated that there may be some connection between governance practice and type of community group. Particularly, I had anticipated that governance in cooperatives may differ from the other groups, due to the guidance provided by the cooperative principles, including the emphasis on the 'one member, one vote principle' (International Co-Operative Alliance 2017; also emphasised by Vansintjan 2015 in relation to energy cooperatives). While such principles are helpful in providing guidance for communities, I had also anticipated that such guidance may restrict the diversity of governance practices.

During the research, however, no clear relation became apparent between community energy 'types' and governance practices. Many groups have deliberately copied the governance processes that appeared to work well for other groups. While two of the main cooperatives involved in this research do adhere to the one member, one vote principle', a third cooperative (albeit included in this research in the 'small is beautiful' category), has adopted a consensus-based rather than majority decision-making model. This cooperative has been able to do this due to the small geographical nature of the group: it is a housing cooperative where all 100+ members live together. While members recognised that a consensus-based model can skew decision-making towards a

single person, and especially towards individuals already in a position of power, the cooperative board member explained that he felt the attempt at consensus helps to legitimise the decision-making processes, in a way that majority voting cannot:

'If you vote, you know, you're engaging the process, you say 'no I disagree', and it passes anyway, you don't really have ownership of that. Of, whatever the outcome was. But if you engage in a process where you have an opportunity to speak up and to voice a reservation about something, or even an objection to something, and then you, as a group discuss that reservation and then you might say, "okay, I am content with this, I'm not going to stop it from going further, I'm going to let it continue", you have participated in that process, you now have ownership of it, because you allowed it to continue. This means that our agency in this process is much higher than in just a voting system.' (CG8, founding member).

This group was the only one in this research who had thus developed a distinct alternative to the decision-making model used by other groups, who primarily engaged in (often informal) deliberative engagement, followed by a majority vote to make key decisions. One board member (group 6) argued that this relative lack of diversity in decision-making and governance procedures is 'because communities follow a well-trodden path, that people know, trust and that works'. In practice this means that community energy groups will often adopt governance procedures used previously (if they are developing a subsequent project) or look at communities elsewhere delivering similar projects.

This returns to the earlier point in terms of community capacity, tight timescales, and reliance on volunteers. Many do not have the time, energy or desire to develop new governance procedures, and therefore most groups follow what others have done before them, unless or until they come to a point where these procedures no longer work as desired. The community cooperative cited above, is an exception primarily because many of their members, especially the founding members, had a strong interest in cooperative and alternative models of governance prior to joining the cooperative. Nonetheless,

as the earlier section on ‘inclusivity’ in decision-making showed, it will be interesting to see as these projects and groups mature, whether ‘what works’ in terms of governance will develop solutions which are more strongly locally contingent.

5.7 Discussion and conclusion: community energy as democratic governance?

Community energy projects are often considered to be at the heart of energy democracy (e.g. Giancattarino 2012, Cumbers *et al.* 2013, Vansintjan 2015, Weinrub and Giancattarino 2015, Carrilho da Graça and Gomes 2016, Morris and Jungjohann 2016, Powell 2016). In this chapter I have sought to challenge the implicit assumption in much of this literature that community governance is inherently more democratic, and by doing so, contribute to the small emergent body of academic literature which questions this ‘romanticised narrative that community energy groups will always be widely considered “democratic”’ (Simcock 2016, p.475; see also Walker *et al.* 2010, Simcock 2014, McHarg 2016). I have done this by focusing on three key aspects of democratic governance: inclusivity in decision-making, accountability of decision-makers, and how communities deal with disagreement. This has shown that while inclusivity is deemed important, the ideals of inclusive decision-making and robust accountability procedures, can be at odds with the practicalities of meeting them (see also Johnson 2004, Bell 2011, Simcock 2014). It also showed that the nominal inclusion of (previously) underrepresented groups in decision-making does not automatically guarantee their transformation from powerless to powerful as internal forms of exclusion may remain (Young 2000). Finally, perhaps somewhat in contrast to Islar and Busch (2016), the section on dispute-handling shows that while many communities seek to govern based on cooperation and consensus-building, agonistic processes of contestation and negotiation can also be part of the day to day reality of democratic governance (see also Mouffe 2000). Through this process individuals and communities are required to engage in debates around key issues of democratic governance –

such as representation, participation and accountability – which are equally relevant to governance processes beyond the community level. Combined, these findings demonstrate the varied ways in which democratic rules are established by communities, and the different ways in which these rules are followed, negotiated, and at times subverted. Although often deemed unpolitical, this may indicate that the community sphere is in fact politicised through community-level action, with members actively considering different governance practices and their associated impacts. While it was beyond the scope of this study to investigate the precise ways in which this familiarity with questions of governance could create a more politically engaged citizenship, this could be an interesting area for further investigation.

This research adds to a small number of earlier, in-depth case studies that have looked at the governance processes of community energy projects (e.g. Simcock 2014, 2016), by adopting a broader approach, involving fifteen different community groups. Due to the limited availability of existing research on how governance is enacted in community energy projects, this approach helped me gain an understanding of which practices or experiences were commonly experienced or unique to a single case. This approach also has limitations. Community governance can be a sensitive topic, which not all participants were willing to discuss in detail. Additionally, conducting a single interview with a community group members also raises the question how representative the views of a single person are. I have sought to mitigate both limitations through examining three cases in more depth, to obtain a more nuanced understanding of governance practices, and how these were experienced by different people. This was particularly valuable in understanding the issue of internal exclusion, which can often be subtler in nature and will not be universally experienced or recognised (Young 2000). Further extensive in-depth qualitative research, for example through the currently under-utilised (in community energy research) method of participant observation, could be particularly helpful in providing additional insights into the nuances of governance practices.

5.7.1 *Beyond Scotland and beyond energy – the wider applicability of these findings*

Despite its UK roots, community energy is a concept that is used and recognised internationally (Becker and Kunze 2014), and the language of energy democracy is also gaining ground in numerous countries, especially in Germany, where it is considered to be something that is already happening (Weis *et al.* 2015, Angel 2016a). While the questions posed in this research are thus relevant to an international audience, some of the findings are specific to the Scottish context. One contributing factors to this particularity is that, as Chapter Four showed, most community energy projects in Scotland are developed by (primarily rural) communities-of-place rather than cooperatives which may have a more geographically dispersed membership (see also Haggett and Quiroz-Aitken 2015, Strachan *et al.* 2015). This means that smaller communities often only have a very limited number of members who can take up more active roles in the group affecting both representativeness and accountability, and that historic community relations may play an important role in disagreements and how they are dealt with (see also Walker *et al.* 2010).

An important further consequence of the Scottish context is that most place-based community energy groups do not distribute income from their energy development to individual group members, but use this to fund community development projects. Communities therefore not only experience challenges and disagreement regarding the development of their energy project, but also regarding the governance of subsequent income streams, and thus whose vision(s) for the future of the community prevail (van Veelen and Haggett 2016). It is in this post-installation period that some of the communities in this study became more concerned with the issue of diversity, as these groups wanted to ensure that the income from the energy project is managed in a way that is representative of the needs and wants of the community. This finding is interesting in light of previous research which considered the notion that those affected by a decision have a normative right to be involved in the decision-making processes (Walker 2009, Simcock 2014), and are thus considered to be

part of the 'democratic public'. It shows that the question 'who is affected?' not only has a geographical dimension (Simcock 2014, 2016, Rudolph *et al.* 2017), but also a material one. Although official community boundaries did not change once energy technologies were installed, (some) community groups began to pay more attention to, and actively encourage, inclusivity in decision-making once projects were up and running. Further in-depth case study or comparative research into different national contexts with different models of community energy; the temporal dimension of inclusivity in decision-making and governance practices more broadly (see also Fox 1992); and different understandings of 'who is affected' in relation to negative impacts (e.g. visual) versus positive impacts (financial gain) and their impact on inclusivity in decision-making and/or just outcomes could thus provide valuable further insights.

A further important issue to consider is how specific these findings are to community *energy*. In Chapter Two, Section 4, I posed the question: of what is the sort of engagement that generates a democratic public – made (see also Marres and Lezaun 2011)? A number of publications in recent years have sought to theorise how the socio-material conditions of public participation can challenge or complement visions of public action grounded in deliberative processes (Marres and Lezaun 2011, Davies *et al.* 2012, Chilvers and Longhurst 2016, Smith and Stirling 2016). Community energy is a clear example of how participation can include *doing* as well as *discussing*. In this chapter I have nonetheless focused on discursive arrangement around issues of energy rather than on other interactions with energy, such as practices of energy use. The reason for this is two-fold. One, the materiality perspective and the idea of linking democratic theory with non-discursive forms of engagement was not my focus at the start of my PhD, but a line of thinking that emerged during the course of my research. Second, through my fieldwork it appeared that in many community energy projects, participation is often discursive in nature, not least because the generated energy is often not used locally.

Nonetheless, this research shows that a greater focus on the material properties of energy can enable a deeper examination of how things acquire the capacities to organise democratic publics. From this research, it emerged that the complexity of community energy projects affects their democratic quality. It poses particular challenges in terms of accountability, with voluntary board members reportedly lacking the skills (and time to acquire such skills) required to oversee every aspect – e.g. technical, financial, and planning – of the project. A second way in which these findings may be specific to community *energy* builds on the argument from the previous paragraph: many Scottish communities not only experience challenges and disagreement regarding the issue who should be included in decision-making regarding the energy development, but also regarding the governance of subsequent income streams. Interview data indicated that inclusivity in decision-making became a greater concern for some groups as they started to distribute the income generated through their energy projects. As such, this research provides tentative evidence that there may be a geographical and material dimension to the constitution of a democratic public in community energy projects. This finding closely resonates with Chilvers and Longhurst's recent (2016) work on the co-production of participatory objects, subjects and procedures, in which they argue that participation is 'both shaped by and actively construct[s] human subjectivities, objects of concern, and models of participation' (p.590). At the same time, however, this research did not find a clear difference in the democratic nature of different types of community energy projects. While communities-of-place and cooperatives do differ in terms of how they define 'community', no noticeable differences were identified between these two in terms of the three aspects (inclusivity in decision-making, accountability and dispute resolution) that are the main focus of this chapter. Therefore, while the materiality of energy appears to shape the democratic qualities of projects in some ways, this was not pursued in more detail, as the possible importance of materiality emerged from my research rather than being foregrounded at the start of it. Further research that teases out in more detail whether and how different types of sociotechnical

configurations affect the democratic qualities of community projects could thus contribute to this emerging body of research.

Finally, this discussion raises the question ‘what is democracy, and to whom’? This research has shown that community governance practices are based on both local and national norms and conventions. The importance of local and wider contexts was particularly noticeable in the area of inclusivity, with a number of groups seeking to make their decision-making bodies more inclusive and diverse in a number of different ways. Nonetheless, groups that are more ‘passively inclusive’ may (inadvertently) reproduce external and internal barriers to participation (Young 2000, Simcock 2016, Grossmann and Creamer 2017). In addition to local contexts, external factors and actors also shape internal community energy governance. While this is not unique to community *energy* (see for example Creamer 2015a), there is some evidence from this and previous research that suggests this is exacerbated by the extensive interactions between community energy groups and other actors. For example, this research shows the importance of meeting multiple deadlines set by other actors (for example due to changes to the Feed in Tariff), which can have unintended consequences for governance practices. Additionally, other research has shown that intermediary organisations play a particularly important role in the community energy sector, including shaping community governance. Not only do they assist groups through offering governance ‘health checks’ or mediation but also in some cases by prescribing the parameters for participation (see also Bulkeley and Fuller 2012, Hargreaves *et al.* 2013, Parag *et al.* 2013, Parag and Janda 2014). This raises both practical and normative questions: how are different meanings and practices of democratic governance translated through these governance networks and whose meanings prevail? Is, or should, democracy be perceived as a set of locally-situated practices or universal principles? The emergence of energy democracy in different national contexts, and involvement of different actors at different ‘levels’ of government thus raises the question how potentially different visions of democracy can be reconciled. This research should therefore be seen as one step towards an

emerging evidence base on energy democracy, which will help policymakers and researchers understand the complex dynamics of the concept.

5.8 Epilogue

In this chapter I have analysed the governance dynamics within community energy groups. The next chapter seeks to build on this by analysing the interactions between community energy groups and the wider contexts in which they are situated in greater detail, and thus begin to address some of the questions raised at the end of this chapter. As Klinke (2016) notes, with traditional political institutions complemented by new institutional modes, issues of democratic control, accountability and legitimacy are becoming blurred. This is not only visible within communities, but also in other new spaces of governance that have emerged. Specifically, early interview data indicated that there may also be potential issues regarding the vertical accountability (i.e. between civil society and government) of these new forms of governance. Nonetheless, as this is (understandably) a sensitive issue it proved difficult to find more evidence for this. Therefore, guided by the findings emerging from my fieldwork, the next chapter puts the explicit 'democracy' angle aside (although, as Chapter Seven will show, the findings do contribute to the wider discussion on the potential of community energy to contribute to greater energy democracy). Instead, it focuses on the construction of intermediary spaces of governance, as a lens for looking at community-state interactions in a context of neoliberal governance. This thus relates to the original aim of the thesis which set to understand community energy governance as the interaction between internal and external processes, relations and organisations.

6 Creating and contesting intermediary spaces in community energy governance

6.1 Introducing energy intermediaries

This chapter builds on Chapters Four and Five by analysing the spaces in-between community and Scottish-level governance, to show that community energy governance cannot only be considered pluralist, but also hybrid, in nature. As I showed in Chapters One and Two, the drive for community involvement in energy governance has been presented in numerous ways. Whereas civil society actors have presented it as a radical *response to* neoliberal energy governance characterised by privatisation, others have been more sceptical, arguing that community energy governance is as much *part of* neoliberal governance as it is a response to it (Ison 2009, Middlemiss and Parrish 2010, Catney *et al.* 2014). While these authors have sought to understand the emerging role for communities in light of a broader shift in state-society relations, less attention to date has been paid to so-called intermediary actors, who – depending on the view adopted - are tasked with translating the government’s vision to actors on the ground or translating local interventions into wider societal change. In this section I will show that there is an emerging body of research on the roles that intermediaries play in fostering low-carbon transitions, but that less is known about how the spaces in which intermediaries operate are shaped and how this affects intermediaries’ activities. Such an understanding is fundamental, however, for understanding attempts to translate (sometimes divergent) visions of energy transitions into reality (Lawhon and Murphy 2012, Hodson *et al.* 2013). This is particularly relevant, considering the diversity of the community energy sector and the

different practices at the community level – as shown in the previous two chapters.

In Chapter Four I traced the emergence, and current configuration of the community energy sector in Scotland. I showed that while growing in number, community energy projects are often small in scale and developed particularly to suit their local contexts in which they have emerged. This is because, as Chapter Five showed, groups are often reliant on volunteers, and time and finance are important constraints on communities' activities (see also Strachan *et al.* 2015). As a result, community energy groups are often primarily focused on enacting change in their local area. While groups have reported that they see their locally-focussed actions as part of 'something bigger' (van Veelen and Haggett 2016), they often do not have the capacity to actively develop and nurture the types of multi-scalar and network-oriented strategies required to 'jump scale' and engender change beyond their local area (Strachan *et al.* 2015). Added to this is the relative weakness of local government in the UK (Webb 2016), ensuring that much political lobbying focuses on either the Scottish or UK Government, far removed from many of the, primarily rural, Scottish community energy groups. As a result, intermediary organisations – often operating at a regional, national or international level - have been assigned a key role in the process of fostering change beyond the local scale (Hicks and Ison 2011, Hargreaves *et al.* 2013, Seyfang *et al.* 2014, Warbroek *et al.*, 2015. Bush *et al.*, 2017).

There are a number of ways in which the term 'intermediaries' has been used and understood (Hodson *et al.* 2013). In its broadest sense, the term intermediaries has been used to indicate actors who enable and foster the exchange of knowledge and skills, and who connect, bridge and mediate between different actors in order to support innovation (Geels and Deuten 2006, Hargreaves *et al.* 2013, Kivimaa 2014). Such functions can be delivered by a range of organisations, including individuals, public bodies, non-governmental organisations, consultancies or trade bodies (Küçüksayraç *et al.* 2015, Bush *et al.* 2017). The defining feature of an intermediary is therefore not a particular

type of legal or organisational body, but rather the arenas of their action, which are defined by their 'in-betweenness' (Moss 2009, p.1481).

Despite the implicit assumptions about the importance of intermediaries in upscaling local initiatives, their precise roles and influence in low carbon transitions remains under-researched (Bush *et al.* 2017). Previous research on the roles of intermediaries is dominated by authors adopting a multi-level perspective to sociotechnical transitions, analysing the role these organisations play in niche nurturing (Hargreaves *et al.* 2013, Kivimaa 2014, Hamann and April 2013). Much of this literature is based on the work of Geels and Deuten (2006), who have developed a model of intermediary action based on the identification of three key roles that intermediaries play: aggregating knowledge, creating institutional infrastructure, and reverse the relationship and knowledge-flows between local projects and the wider structures in which they operate. I will briefly summarise the contribution of this model to our understanding of the role that intermediaries play, before explaining how its functional perspective also has limitations, and how this chapter seeks to address these.

6.1.1 From intermediary functions to intermediary spaces

The Geels and Deuten (2006) model, as well as subsequent research (Hamann and April 2013, Hargreaves *et al.* 2013, Kivimaa 2014), highlights the importance of the 'relational work' that intermediaries undertake: connecting and bridging between different actors, enabling local knowledge to be transformed into global knowledge. The creation of social networks plays a key role in facilitating the circulation of knowledge and experiences between different localities (Geels and Deuten 2006). Through the establishment of institutional infrastructure - such as conferences, courses and guides - the experiences of different actors in these social networks can be shared (Geels and Deuten 2006). Community energy intermediaries in Scotland are highly involved in the creation of such networks and infrastructures aimed at circulating knowledge and experiences between different actors. For example,

in Scotland, two of the key intermediaries, Community Energy Scotland and Local Energy Scotland, organise regional (Community Energy Scotland 2017) and national (Local Energy Scotland 2017) conferences, have developed handbooks (Local Energy Scotland 2013) and toolkits (Local Energy Scotland 2016) to aid the flow of knowledge between localities.

One limitation of Geels and Deuten's (2006) model, which they acknowledge, is that it risks downplaying contextual factors at play. It assumes local knowledge can be aggregated and translated unproblematically. It does not account for how already existing networks and infrastructures may either facilitate or resist the work that intermediaries seek to conduct. Subsequent research by Hargreaves *et al.* (2013) has begun to address this limitation, by adding a fourth dimension to intermediary activities: brokering. This is based on the recognition that external influences, such as funding programmes and central government policies, also play a major role in shaping community projects (Hargreaves *et al.* 2013). This is also evident in Scotland where intermediaries such as Community Energy Scotland and Local Energy Scotland play a key role in distributing funding from central government to community energy groups. Hargreaves *et al.* (2013) argue that community energy intermediaries increasingly find themselves brokering and managing partnerships between community energy projects and actors outside this sector – especially among the ‘innovator’ groups described in Chapter Four, who often work in partnership arrangements – as well as lobbying policy-makers. The importance and impact of such activities is still unclear, however. Research has suggested that lobbying is often either not a priority for intermediaries (Strachan *et al.* 2015), or is of limited effectiveness as it is often re-active rather than pro-active in nature (Hargreaves *et al.* 2013).

What this emerging body of research on intermediaries – much of which draws on the Geels and Deuten (2006) model – shares, is that its perspectives are primarily functional in nature. It focuses on understanding the ways in which intermediaries can assist community organisations in enacting change beyond the local level. Less is known, however, about how the ‘in-between’ spaces in which intermediaries operate, are shaped themselves. As intermediaries are

involved in 'relational work', it could be expected that intermediaries' activities not only shape local and national/global spaces for community energy, but that these other levels also shape the spaces in which intermediaries operate. This chapter therefore looks at the interactions between intermediaries and the spaces they occupy to demonstrate how intermediaries are enrolled in broader processes of neoliberal governance, which in turn influence intermediaries' capacities and actions. It thus seeks to foreground the political struggles around how these intermediary spaces not only shape, but are also shaped by, local and national contexts. Adopting a geographical perspective helps to highlight how intermediary spaces not simply 'are', but are in themselves the product of a particular set of relations within and beyond them.

6.2 Theorising spaces of intervention

Understanding how spaces of intervention are created and maintained is fundamental for understanding attempts to translate visions of low carbon transitions into reality (Hodson *et al.* 2013). As I explained in Chapter One of this thesis, a key change in how such spaces are created is the shift in recent decades from hierarchical and top-down government to governance-beyond-the-state, which is assumed to be 'horizontal, networked and based on interactive relations between independent and interdependent actors [...] within inclusive participatory institutional or organisational associations' (Swyngedouw 2005, p. 1995). The process can take different forms, and the key challenge for interpreting the effects of governing rescaling is understanding where, how, and to what extent power is redistributed (Cowell *et al.* 2015). This chapter will first build on Chapter One by discussing different interpretations of the emergence of 'community' as a space of neoliberal intervention in more detail, before detailing what an explicitly *spatial* focus on the role of *intermediaries* can add to this discussion.

6.2.1 *'Community' as a space of (neoliberal) intervention*

I set out in the introduction how the emerging forms of governance are characterised by the opening up of new spaces of intervention, particularly the 'local community'. A key question that emerges from this is whether these new governance arrangements are empowering and democratising or point towards greater autocratic governmentality (Swyngedouw 2005).

To date, such research has tended to develop binary conceptualisations that juxtapose communities with the state. For example, research from the field of community development that has sought to understand whether the growing role for 'communities' in networked governance arrangements is empowering or disempowering has suggested a distinction between 'popular' and 'invited' spaces of intervention (Cornwall 2004, Kesby 2007, Taylor 2007, McAreavey 2009), also referred to as 'claimed' and 'provided' spaces (Hickey and Mohan 2004). The basis of this distinction is how these spaces are created, by whom, and for what purpose (Kesby 2007). In brief, popular spaces emerge more organically, and are 'chosen, fashioned and claimed by those at the margins' (Cornwall 2004, p.78), based on a common set of concerns (Kesby 2007). Thus, for community as a space of intervention to be empowering, it has been suggested that individuals and communities should not only have the right to participate effectively in a given space, but also the right to define and shape that space (Gaventa 2004). In contrast, invited spaces refer to more formal events, where often both the setting and the terms of participation has been framed and defined by outsiders (Cornwall 2004, Mohan 2007).

Several authors have sought to place this discussion within the wider context of neoliberalism. Neoliberal governance, these authors argue, is characterised by a number of factors. First, considering community environmental initiatives, Taylor Aiken *et al.* (2017) have argued that this neoliberal context is evident through the encouragement of pro-environmental actions without reducing the freedom of choice, and secondly the introduction of market techniques into new arenas. A third characteristic of neoliberal governance is a tendency to govern

through abstract indicators and number-based measuring (Rose 1999, Taylor Aiken *et al.* 2017), and, fourth, a focus on competition rather than redistribution (Peck and Tickell 2002, Rosol 2012). Finally, there is of course the belief in a smaller state (Taylor Aiken *et al.* 2017). This belief in a smaller state not only affects energy governance, but also social policy. This effect on social policy is evident in the withdrawal of the public sector in delivering social services (DeFilippis *et al.* 2006). This is an important factor for the emergence of community energy in Scotland, as many community energy groups seek to fill this gap in service delivery with the income generated from renewable energy. It is thus one example of neoliberalism that expects people to be enterprising and less dependent on state programmes (DeFilippis *et al.* 2006).

Authors writing from a neo-Marxist perspective, have at times been tempted to proclaim that the neoliberal state has become 'hegemonic' and that local action cannot result in any fundamental change (e.g. Harvey 2005). They have suggested that participation is promoted within a neoliberal framework primarily to enhance efficiency within a bounded notion of social change, turning attention away from the underlying causes of structural inequalities (Mohan 2007). In the absence of a more redistributive and supportive extralocal framework, the constitution of competitive relations between localities places real limits on the potential of localised political action (Amin 1999, Peck and Tickell 2002).

Thus, what emerges from these different literatures that have sought to understand the emergence of community as a space of intervention are two rather distinct views: ones that see communities as co-opted sites through which neoliberal logics are articulated at a local scale; or views that see communities as sites that can be claimed for the articulation of progressive alternatives to the current neoliberal political and economic order. Others (Schlosberg 1999) have warned, however, against assuming a uniformity of political orientation and effects of the homogenous state. A number of authors (Peck and Tickell 2002, Mohan 2007) have therefore called for a greater geographical sensibility to complement this research. A focus on the ways in

which geographical scales and spaces of governance are actively reshaped is essential for understanding the success of strategies for empowerment and the diverse ways in which new spaces and networks of governance are formed (Swyngedouw and Heynen 2004). What I seek to do in this chapter is therefore go beyond the confines of the rather binary view that sees community spaces as either co-opted or empowered. I do so by bringing a spatial and procedural lens to the study of intermediaries. Such a lens helps highlight how intermediary spaces themselves are not neutral, but shaped by power relations that both surround and enter them (Gaventa 2004). The next section will set out in more detail how it can do this.

6.2.2 Beyond community - a focus on intermediary hybrid spaces

The emergence of 'community' as a site of neoliberal environmental governance has been accompanied by a growth in intermediary organisations, established to assist communities take on the new roles expected of them. As the introduction to this chapter stated, intermediary activities can take different forms, but what characterises them is their linking or networking function. Building on Moss's (2009) observation that intermediaries are characterised by their 'in-betweenness', I therefore argue that the spaces intermediaries occupy are the essence of networked spaces, playing a vital role in connecting community spaces with spaces external to them, and co-shaping the relational forms of the network of which they are part (Crang *et al.* 2013). Nonetheless, as I stated before, little is currently known about how the spaces for intermediaries, and therefore the possibilities and limitations of their actions, are shaped.

There are three main reasons why a spatial lens is appropriate and useful for the study of intermediaries, especially in relation to the broader framing of neoliberal governance. First, adopting a geographical perspective can highlight the power dynamics between these spaces. I have established that intermediaries can be defined by their relations to others, a focus on

intermediary spaces would thus benefit from a relational perspective on 'space'. A spatial lens can help to see places not as self-contained, but as criss-crossed by flows of people, images, ideas and goods (Massey 1994 in Mohan 2007). It can thus help us see places and spaces as a product of the socio-spatial dynamics within and between them (Swyngedouw and Heynen 2004, Mohan 2007). A focus on networked spaces, and the relations that form them, can help to highlight the social origins of spatial relations (Warf 2015). It thus enables us to be specific about the social and political dynamics that have created particular spatial configurations.

Such a perspective also promotes a view of spaces as constantly changing, both producing and receiving changes through ongoing determinant interactions with one another (Massey 2005, 2009). For intermediary spaces, this also means that their spaces not simply 'are' but are constantly reworked. The emergence of new intermediary spaces as spaces of governance, or the reworking of existing ones, changes the organisation of social, political and economic power relations (see also Swyngedouw 2004). Thus, the relations between intermediaries and other actors are not simply one way (with intermediaries seeking to reshape other spaces), but intermediary spaces are also the subject of changes through the actions of other actors. This means that not only should we ask how intermediary activities alter other spaces, but also how they seek to protect or alter their own spaces in relation to others.

The second, related reason, for adopting a spatial perspective is that it can help blur the binary distinction between communities and the 'hegemonic' neoliberal state. A greater geographical sensibility towards neoliberalism shows that it is not reproduced homogenously across space (Peck and Tickell 2002). Rather, it helps to show that neoliberalism 'encompasses multiple processes, unevenly spread and certainly not all pervasive' (Taylor Aiken 2016, p.21). Attempts to conceive of neoliberalism in specifically geographical terms therefore encourages a consideration of how 'local' institutional forms of neoliberalism relate to its more general character (Peck and Tickell 2002). Contributing to the theorisation of how particular, actual forms of neoliberalism are constituted

across different spaces, McCarthy (2005) offers the concept of 'hybrid neoliberalism' as a conceptual lens (see also Brenner and Theodore 2002a, 2002b, Bridge 2014). Conceived as hybrid form, one can capture how neoliberal economic policies are constituted and supplemented in particular places by their articulation with other logics (McCarthy 2005, Bridge 2014). A focus on the networked space of intermediaries could help highlight how and where this integration of different internal and external logics takes place.

If we thus conceive such spaces as potentially hybrid spaces, we can begin to emphasise the political ambiguities of participation, conveying its situated nature, the boundedness and permeability of arenas, and the domains from which new institutions and opportunities emerge (Cornwall 2004). Considering the intersection between neoliberal governance and participation, this means that an emphasis on the geographically, socially and temporally different variations can help further understanding of the particular ways in which governance is enacted. This requires a conception of participatory interventions not as isolated in time and space, but as part of broader social, historical, cultural and spatial processes (Long and van der Ploeg 1989, in Kesby 2005).

Peck and Tickell (2002) have argued that a geographical perspective helps highlight how neoliberalism not solely occupies – or is absent from - particular institutions and places, but also highlights how it is present in 'the spaces in between'. By this they mean that neoliberalism has played a decisive role in constructing the roles of interlocal competition by shaping the metrics by which performance is measured, such as value for money, bottom line, flexibility, and performance rating. Here, I argue that in the case of community energy there are important similarities between 'the spaces in between' (Peck and Tickell 2002) and the 'in-between' that Moss (2009) has identified as occupied by intermediaries, as it is often intermediaries who are the arbiters of such interlocal competition. Thus, a focus on intermediary spaces helps to show how communities and external spaces are connected in different ways.

The third reason for adopting a relational geographic perspective, which follows from the previous two, is that it opens up alternative possibilities. As power shifts, new social, economic or political spaces are constructed, while others will be redefined or disappear altogether (Swyngedouw 2004). If we conceptualise *'space as open, multiple and relational, unfinished and always becoming'* (Massey 2005, p.59), this opens up the opportunity of envisaging alternative spatial and social configurations.

To summarise, a conceptualisation of intermediary spaces as networked spaces of intervention can thus help achieve three things. First, the 'in-betweenness' of intermediary spaces can blur the distinctions between binary categories of 'communities' and '(nation)-state' instead focusing on the ways in which locations are connected (Murdoch 2006, Warf 2015). This focus on the interactions between different spaces in turn can highlight the hybrid nature of the ways in which neoliberalism is enacted in different places. Second, the literature on intermediary activities has often highlighted their networking functions. A focus on the relations that form these networked spaces, can also highlight the social origins and power dynamics of these spatial relations. Third, such a perspective can provide an understanding of how particular spaces may open up to challenge the status quo.

6.3 Methods

The research methods for this chapter are primarily based on interviews with representatives from intermediary organisations, supplemented by interviews with community groups. More information on the interviews with community groups has been provided in the previous chapter, and I therefore wish to focus here on the interviews conducted with intermediary organisations.

Participants were chosen through a multi-stage process. First, I mapped the landscape of community energy stakeholders in Scotland. This map covered the sources of advice, policy and financial support for community groups. While initially developed to aid my PhD research, it has subsequently been published

in a report for ClimateXChange (Haggett *et al.* 2014, p.18) and can also be found in this thesis in the form of Appendix 7.

This map helped to identify all relevant stakeholders in the area. I subsequently narrowed this down to a smaller number of organisations, who I asked to participate in this research. I selected organisations based on my interest in community energy as an example of how ‘community’ has increasingly become a space of intervention. I therefore wanted to speak to intermediaries who only operate in the community energy sector, as well as those who offer support for community energy projects as one aspect of a wider approach to supporting community development. An overview of this can be seen in Table 6.1 below:

Intermediary Organisation (IO)	Area of focus
I01	community energy
I02	community energy
I03	community energy
I04	general community development
I05	general community development
I06	general community development
I07	general community development
I08	general community development
I09	energy policy
I010	community funding
I011	community funding

Table 6.1: Overview of intermediary organisations included in this study

Additionally, my involvement in the aforementioned ClimateXChange project as well as time spent working at the Scottish Government (as discussed in Chapter Three) helped me to connect to a number of intermediary organisations operating in the community energy arena. These intermediaries were contacted first. Further participants were contacted through a snowballing approach, suggested either by other intermediaries or by community groups, who were

asked which organisations had provided support in developing their energy project.

I conducted 18 in-depth interviews with participants representing 11 different intermediary organisations. This was supplemented by the 39 interviews conducted with community members, as reported in the previous chapter. Slightly more than half these interviews (10) were conducted face-to-face, with the remaining eight conducted by phone. Interviews varied in length from 30 minutes to 180 minutes, with the average length being approximately one hour. Interviews were transcribed verbatim and analysed through thematic coding in NVIVO. Due to the sensitive nature of some of the interview data, I have made the decision has been made to remove all identifying features.

Finally, it is important to note that the majority of the intermediary organisations included in this research are themselves part of the third sector, often relying on funding from the Scottish Government, UK Government, or, in a small number of cases, receiving funding from other intermediaries. While some of the intermediary groups included in this research are membership organisations, for all bar one, membership contributions are insufficient to fund all their activities, ensuring they also rely on external sources of funding to fund their activities.

These intermediary features – part of the third sector and often reliant on government funding – is not necessarily representative of the intermediary sector as a whole, but rather a consequence of the intended focus of this project which has situated community energy within a broader community development approach. Additionally, when I asked communities about their experience of working with intermediaries, what came to the fore was that third sector organisations such as Community Energy Scotland and Local Energy Scotland, but also more general organisations such as the Development Trust Association are often a first port of call, as they offer a broad range of services and advice, free of charge. These intermediaries may subsequently signpost to other, more specialised and often private sector, intermediaries who

offer a more specific set of services. Nonetheless, these third sector intermediaries are often integral to helping community energy projects off the ground and helping communities through the entire processes, rather than a single aspect of it.

6.4 Findings: the interactive nature of intermediary spaces

The empirical evidence collected highlights the symbiotic relation between the activities of, and spaces for, intermediary organisations, as this space is shaped by the connections within and around it. In these findings I will first present a historical overview of how intermediary spaces have been shaped by both top-down and bottom-up influences. I will then move on to the present-day context. Evidence shows that funding for intermediaries, and the way in which funding is guided by a context of neoliberal economic logics, is a key factor that shapes the spaces for intermediary action. The subsequent three sections will set out this argument in more detail. First, I will focus on how intermediaries' support for community groups has been shaped by the context of the 'contracting' state. Subsequently, I will discuss the role funding plays in how intermediaries negotiate the interactions between their own space, communities, and the state. Then, I will discuss how funding has played an important role in how intermediaries protect their spaces, the differentiated responses shown by these organisations shows the importance of accounting for intermediaries' own agency. A final, fifth, section shows how intermediaries' spaces and the relations within and beyond them continue to change and expand, opening up the possibility of alternative socio-economic configurations.

6.4.1 *Emerging intermediary spaces*

It is important to consider the temporal as well as spatial dimensions of (energy) governance in order to show the political nature of intermediary spaces (see also Massey 2005). Such a consideration shows that the current configuration of intermediary spaces not simply *is* but has emerged over time as a result of changing local, national and international relations that surround and

enter these spaces. Chapters One and Four have already introduced the development of key policies and support mechanisms relevant to the development of the community energy sector. Here, I show how the spaces for intermediary action have been shaped historically in order to show the ways in which intermediary spaces have been shaped by the connections within and around them. While I acknowledge that the limited space available here will be unable to fully do justice to the 60+ years of history discussed below, this discussion is important for understanding the political trajectories that have created current spatial configurations.

Chapter One set out the history of both community and renewable energy development in the Scottish Highlands. It showed that through the introduction of a 'social clause' in the Hydro-Electric Development (Scotland) Act in 1943, the development of renewable energy in Scotland, particularly in the Scottish Highlands, has been associated historically with the delivery of socio-economic outcomes as well as energy generation. Despite the development of a number of hydro-electric projects in the Highlands in subsequent decades, economic development of the region remained lacking. As the economic case for large hydro-electric schemes had become less strong, the Scottish Office established Highlands and Islands Development Board in 1965 to consider alternative development options for the region.

What is apparent in subsequent decades is the ongoing interaction between, and negotiations, of spaces for community development, which in turn has shaped the spaces in which intermediaries operate. While the initial impetus to establish HIDB had come from a Labour Government in Westminster (MacKinnon 2002), its subsequent activities were guided by both top-down and bottom-up concerns, which in turn shaped the opportunities and spaces for community action on the ground. Although the Hydro-Electric Act had linked socio-economic development with the generation of energy, this model was primarily based on 'plonking inward investment into rural communities as a way to developing the rural economy' (106). While this interviewee recalls that HIDB supported hydroelectricity to make aluminium in Fort

William, Kinlochleven, Foyers and Invergordon, these smelters could not rely on 'silly little windmills' or 'cranky professors sticking things in the water' (IO6). Small energy developments were thus dismissed by the HIDB as not feasible at the time.

In the late 1970s and early 1980s, however, some of the large inward investment projects were beginning to show difficulties with the changing economic climate in the late 1970s, early 1980s, particularly processes of (neo-liberal) globalisation. This caused the HIDB to re-evaluate and look '*at what can be grown from below and up, rather than just transplanted from outside*' (IO6). To do so, HIDB looked west, to Ireland, where a model for endogenous development through community cooperatives had been developed, and supported the development of a number Co-Chomuinn (community-run cooperatives) across the Highlands and Islands.

6.4.1.1 From 'development' to 'enterprise'

The emergence of a neoliberal political and economic climate has affected the spaces in which both communities and intermediaries operate. In 1991 the Highlands and Islands Development Board was transformed into Highlands and Islands Enterprise (HIE). This has been interpreted as a reflection of Thatcherite policies: '*we don't have socialist agencies, we have enterprise agencies*' (IO6). For community groups, this period also signified a shift from community development grants to enterprising activities, and a growing need for professionalism in the sector. A small number of community groups began to establish small-scale renewable energy developments with help from local and national development agencies, such as on Fair Isle in Shetland. As detailed in Chapter Four, these projects have been primarily established in areas without grid connection, where energy supply was otherwise limited.

As Chapter Four also explains, this changed, however, as community groups began to purchase land as a means to foster their own social and economic development in the late 1990s and early 2000s. It was at this time that the development of renewable energy by community energy groups became seen as

a key income-generating opportunity. When the Scottish Government established the Scottish Community and Householder Renewables Initiative (SCHRI) in 2002, HIE became responsible for the delivery of the communities stream of this initiative in the Scottish Highlands and Islands. In the remainder of Scotland, the Energy Savings Trust was responsible for its delivery. This highlights how community energy became part of different (intermediary) spaces in different parts of Scotland: where in the Highlands community energy became intertwined with organisations supporting (local) social and economic development, in the Lowlands it became more closely associated with energy and environmental priorities. Thus, the different spaces that emerged for community energy were the result of the different intermediary spaces through which funding and advice was delivered. As a growing number of communities began to engage in community energy, however, a demand developed for more specialised support. As the next section shows, this coincided with the emergence of independent support organisations.

6.4.1.2 The establishment of independent support organisations

Changes to the space for community energy intermediaries in the last ten years have been characterised by three key trends: the continuing expectation that communities are, or should be, 'enterprising' (e.g. Scottish Borders LEADER LAG 2015, Big Lottery Fund 2016, The Scottish Government 2016); the perhaps contradictory trends of the emergence of specialised support for community energy; and the diversification of the intermediary sector. It is these latter two trends that I wish to focus on here.

As a result of the growth in community energy projects HIE established a separate community energy subsidiary, the Highlands and Islands Community Energy Company (HICEC) in 2006 to support this development. As HICEC was affiliated with HIE, its support was focused on the Highlands & Islands regions of Scotland. Although HIE has an equivalent body, Scottish Enterprise, responsible for economic development in the Scottish Lowlands, this agency has lacked the social remit that has characterised the work of HIE described above

(MacKinnon 2002). There was thus a gap for an intermediary to assist with community-led development in these areas, and in 2003 the Development Trust Association Scotland (DTAS) was established and became one of the leading intermediaries in urban and Lowland Scotland. A key aspect of the 'Development Trust' approach is its aim to reduce grant dependency and foster community enterprise. Although DTAS has supported a number of organisations involved in community energy projects, specialist support for such projects – as part of a broader community development approach – outside the Highlands and Islands remained limited.

It was only in 2008, five years after its establishment, that HICEC became an independent organisation, Community Energy Scotland. One consequence of this change was that the same type of support for community energy was now available across Scotland. Interviewees attributed this change to both push and pull factors. Throughout its four years, HICEC helped establish more than 200 community energy projects, and the unit had become quite big. Despite the success of the unit, due to complex public sector governance and audit reasons, HIE was under pressure to divest itself of subsidiaries. Interviewees emphasised, however, that it would be too simplistic to see the desire for independence solely as a result of top-down pressures, informed by neoliberal governance logics. They emphasised that there was also a desire from HICEC to be run as an independent, member-led organisation, with more freedoms and fewer constraints that come as being part of a large bureaucracy.

For the next five years Community Energy Scotland was the main support organisation for community energy groups. In 2013, however, they lost their contract to deliver the Scottish Government's community energy support package (CARES) to the newly established Local Energy Scotland. Local Energy Scotland is a consortium made up of the Energy Saving Trust, as well as four other organisations who also deliver Home Energy Scotland, the Scottish Government's programme for domestic energy advice. As will be discussed below in more detail, the dominant view emerging from my interviews was that this change of contract was a financial consideration.

In addition to the existence of two specialised community energy intermediaries, other intermediaries have also begun to offer support to community groups. According to interviewees, this was primarily the result of a growing demand for support from community groups. As a growing number of already established community groups began to consider the development of energy projects, they often sought advice from intermediaries who they had worked with previously, for example to buy land or run other initiatives. While this has diversified the support available for community groups, it has also ensured that the field for intermediaries operating in the community energy sector in Scotland has become increasingly crowded. Again, interviews suggested this should be seen as a response to both bottom-up demands as well as top-down changes. As a growing number and variety of community groups have gained an interest in energy, climate change and other environmental issues, new support organisations have emerged and existing community support organisations have begun to focus on energy to meet the demands of community organisations. Contextual changes, such as in finance for (community) renewable energy has also contributed to a growth in organisations focused on helping communities finance projects, for example through community shares offers.

This section has begun to show that, historically, there is a symbiotic relation between the activities of, and space for, intermediary organisations, as this space has been shaped by the interconnections within and around it. The next section will analyse in further detail one factor that emerged as being particularly important in the shaping of intermediary spaces: the context of the ‘contracting state’.

6.4.2 Shaping intermediary spaces - intermediaries and the ‘contracting state’

What has become evident from the discussion in the previous section is that the space for intermediaries has been shaped by both ‘bottom-up’ forces, for example the growth in communities owning land who have gone on to develop

energy projects, and 'top-down' forces, which has seen government priorities and funding change. Of particular importance in shaping intermediary spaces is the role and process of – what one interviewee referred to as – 'the contracting state':

*'It's to do with the retreat of the state and the contracting of the state, who are just transferring more and more [...]. In this debate there is always this interesting ambiguity around the word 'contract', because there is contract meaning getting smaller, **and a relationship, financial often**. So, 'the contracting state', is an interesting play on words really, because it's both.'* (106 – emphasis mine)

While interviewees identified that both definitions have contributed to the growth and variety of community activity in Scotland, here, I want to focus specifically on the second definition, the (financial) relations between the state and intermediaries. This financial relation was identified by interviewees as especially important in shaping intermediary spaces, as it is instrumental in shaping the relations within the intermediary sector and between intermediaries and other actors. It was thus identified as the key way in which a neoliberal context is made visible and 'real'. Interviewees from intermediary organisations emphasised that they try to ensure that community-led development, and by extension, their role in facilitating this, was guided by what is best for communities rather than a regressive form of localism, which further entrenches market principles into the community sphere. Nonetheless, through interviews it became clear that neoliberal metrics focused on flexibility, and value for money do often guide the work of intermediaries. The majority of the intermediaries interviewed for this study are third sector organisations who are to a significant extent reliant on government funding to run activities. While communities are increasingly encouraged to be 'enterprising' to reduce their reliance on grant funding, a similar pressure was observed among intermediaries:

'Although [we are] funded by the Scottish Government, the funding is only guaranteed for one year, after which it is uncertain whether the funding will be renewed or whether it is expected that we become self-funded.' (I08)

Despite this expectation that intermediaries become self-funded, interviewees indicate this rarely happens, and that many organisations continue to be sustained through government revenue funding. This funding, however, 'is *always a moving beast*' (I06), and is influential in impacting the type and level of support that intermediaries can offer. Government funding priorities change, sometimes from one year to the next, and interviewees felt there is a lack of will or ability by the government to commit to fund a particular programme for a long time. Such changes in government priorities influence the type of support intermediaries can offer, but this does not always align with the priorities for communities on the ground. For intermediaries reliant on government contracts, this sometimes means facilitating government priorities rather than communities' priorities.

In the case of community energy, the Scottish Government has designated additional support in recent years for projects that are particularly technologically innovative. While this has helped support some community groups which were facing particularly challenging barriers, it has also moved funding away from other areas. One intermediary employee noted that this had left a gap in the support their intermediary could offer to communities, which they sought to fill with additional funding from elsewhere:

'Luckily here, the local council have been really, really supportive of us and the work we do, so they have given us some funding to be able to do the... charitable side. There is all the kind of innovation stuff, which is great, but...you want to get the stuff that works happening as well: insulation in community halls, it's not exciting, the government doesn't like it, it's not ground-breaking stuff, but it works.' (I01)

Evidence from my interviews shows that changing funding priorities for community energy has three consequences. First, it obviously impacts the quantity of financial support available to community groups:

'[Name of intermediary] is shrivelling on the vine these days, there's next to nobody left, they have no money left, the number of meetings I've been to where they say 'we're the funder of last resort, come to us if you can't find funding elsewhere, but we don't really have any money anyway, so...' (CG6, employee)

Secondly, it also affects the non-financial support that intermediaries can offer, as intermediaries feel the need to prioritise support that aligns more closely with policy priorities. One intermediary who had delivered a government programme, but lost their contract when it came up for tender, continues to deliver other kinds of support to community energy groups. Nonetheless, it now has to deliver this with less money, affecting the quality of support offered:

'[W]e had to change the way we were working again because we didn't have the money to cover our time to deliver the same level of support. Now, it can be difficult to manage the amount of time that we can give groups.' (IO1)

Thirdly, interviewees indicated that changes to government funding also risks affecting the *quality* of support available, due to a loss of knowledge and experience. Specifically, interviewees pointed towards how neoliberal logics have shaped competition between intermediaries through a focus on short term contracts combined with a growing emphasis on cost efficiency and value for “taxpayers” money (IO2). As a result, when contracts to deliver externally-funded programmes come up for renewal, some interviewees felt that those assessing the different bids are more concerned with the financial bottom-line than with the quality of the intermediaries’ proposals. In the case of IO1, the organisation that took over their delivery contract was not able to deliver the same level of support that had previously been available:

'When [the original support organisation] lost their funding, there was kind of a vacuum, because the group that had got it [...] didn't necessarily have employees and they got the contract because their bid was much cheaper. So they didn't have the money to pay the people to provide the support in the way that [the previous organisation] had done.' (CG10, employee)

A number of community energy groups across different parts of Scotland noted that, with this change in contract, their local support officers were now required to cover much greater geographical areas, ensuring they were not able to deliver the same level of support as had been provided before. Instead, administrative systems had been put in place in order to help the intermediary work more efficiently with fewer staff. For this community group member – who was partway through developing an energy project when the change in intermediary support occurred – as well as others such systems cannot replace personal contacts, who are not only knowledgeable, but also proactive and more flexible than administrative systems are. Instead, along with a reduction in staff numbers, knowledge and expertise were also lost, risking the quality and effectiveness of support offered.

Thus, to summarise, the first important factor that shapes the space for intermediaries is the role of external, primarily government, funding. Changes to funding, shaped by short-term contracts and neoliberal metrics of value for money and cost efficiency, are a key factor in shaping the ways in which intermediaries relate to both government and communities. It has created a space where some interviewees felt intermediaries are required to prioritise financial considerations over quality or effectiveness of support. Interviews, however, showed that intermediaries are not solely passive subjects, but also play a role in shaping government policy. The fine line between representing community interests in the policy sphere and policy interests in the community sphere is the second key factor that shapes intermediary spaces and will be the focus of the next section.

6.4.3 Negotiating intermediary spaces – between communities and the state

The previous section indicated a number of ways in which intermediary spaces are shaped by top-down, neoliberal logics, particularly through the precarity of government funding on which many intermediaries rely. Interviews, however, showed that intermediaries are not solely passive subjects but also play a role in shaping government policy, which in turn shapes their activities. Hargreaves *et al.* (2013, p.878) note this is a key part of intermediaries' work: if they want to be effective they cannot focus solely on internally building community energy projects, but must actively try to shape the wider contexts in which community energy projects, and by extension the intermediaries that support them, exist. This work thus plays an important role in shaping intermediary, as well as community, spaces.

As I mentioned in the introduction to this chapter, elsewhere in the literature lobbying has not been identified as a priority for community energy intermediaries (Strachan *et al.* 2015). Interviewees who participated in this study did, however, consider it an important part of their work. Several of the organisations interviewed therefore have at least one employee or board member – often someone retired from a policy-oriented role – who is tasked with engaging with policy-makers and shaping future policy directions.

Evidence from the interviews showed that some intermediaries considered the growing expectation on community enterprise in policy circles also as an opportunity for influencing the policy and funding priorities which shapes their work. As one director of an intermediary explained, his organisation has seen a widespread change in the Scottish Government: as the notion of community-led development rose on the political agenda, his organisation has gone from '*shouting at the margins*', to being '*almost at the centre of policy*' (I04).

Interviewees indicated that the opening up of policy spaces has enabled intermediaries to bring communities' concerns to policy-makers' attention and led to the introduction of new forms of support, such as the Local Energy

Challenge Fund. Others have been asked to sit in government working groups to shape and develop future policy strategies. In contrast to findings by (Hargreaves *et al.* 2013), interviews thus suggest that intermediaries' lobbying is (increasingly) pro-active in nature.

Nonetheless, interview data showed that intermediaries may have different abilities to shape future policies, based on at least two factors. First, the permeability of policy boundaries varies, which can vary depending on the intermediary in question. Second, the willingness of intermediaries themselves to challenge government policies. These will each be discussed in more detail.

First, I found that among intermediaries who seek to influence government policy, there may be differences in ability to do so. One factor that was highlighted in these interviews was the perception that policy-makers have of the interests that intermediaries represent. There is some evidence from these interviews which shows that intermediaries who are not actively trying to expand their organisation may have greater weight in discussions around future policy directions. One intermediary director noted that he was told by civil servants that the opinion of his intermediary was given greater weight because they knew he is not trying to expand the organisation any further. The employee at another intermediary had noted how his manager had a long history working on Scottish Government programmes. As a result, the manager had shown that suggestions the intermediary made were based on feedback from community groups rather than the intermediary's self-interest. Thus, a perceived lack of self-interest from intermediaries was deemed essential when seeking to influence policy.

While there was widespread agreement among interviewees that their organisations do seek to represent communities' interests in the policy sphere, interviews showed that there is a reluctance among some intermediaries to be critical of government policy. Interviewees indicated that some intermediaries, especially those who are highly reliant on government funding, may feel unable to suggest any radical changes:

'Many would argue now that [we were] just a delivery mechanism of government. A 'poodle' of central government you know. I know that... I got exposed to this myself I guess of being criticised for 'you are just delivering the government's policy, you are not challenging it, you're not shaping it, you're not....' (I06)

'The more dependent you are... it can become more difficult to bite the hand that feeds you, and that's not a good thing. That is part of the problem with the overall analysis of the contractualisation of the third sector is that it becomes much more difficult to be politically active and... because you are always worried inside the system 'ehm if we say that, will we get our next grant or our next contract?'. That's not a good thing, that's not a healthy place to be.' (I05)

Thus, organisations may feel unable to challenge government policy out of concern of losing their seat at the table or potentially risking future funding opportunities. Interviewees who represented organisations who were not, or to a lesser extent, reliant on government funding felt they have more freedom for lobbying activities than other organisations. Conversely, interviewees working for organisations who are largely reliant on government funding indicated that it can be a careful line to tread *'between the Scottish Government, and the community, and representing both'* (I02). Despite identifying it as a challenge, all felt that they were managing to balance these two:

'Now, [name of intermediary director] has had to walk this tight line between a policy influencer, and service delivery, and of course you are delivering the service that the government wants and not necessarily the one that you might decide, although you try to help design it. That is an interesting one. [Name of intermediary director] has been... he's been very effective in influencing policy. People over the years will call on [him] to advise.' (I06)

Although no interviews explicitly expressed any concern about their own organisations' ability or freedom to influence government policy, it is questionable, however, whether this was truly the case or reflects the sensitivity of the issue and reluctance among interviewees to discuss difficulties that their organisation has encountered.

In summary, this section has shown that intermediaries are not passive recipients of government policy, but do play a role in shaping such policies as well. Nonetheless, the evidence also shows that it can be difficult for intermediaries to balance community interests, policy interests and self-interest. Returning to the point of the previous section, it suggests that funding, and the reliance on it, plays an important part in influencing the extent to which intermediaries feel able to influence government policy. The particular ways in which each intermediary negotiates these different interests plays a key role in shaping intermediary spaces.

6.4.4 Protecting intermediary spaces – intermediaries as collaborators or competitors

The two previous sections have sought to expand on the notion of how the work of intermediaries is shaped by funding, in terms of the support intermediaries offer, and their willingness to challenge government policy. A third key way in which funding plays a role is in resulting in, what I refer to here as, ‘space-protective action’. The previous sections have begun to set out how intermediaries are both shaped by, but also actively shape, the spaces in which they operate. In this section I will set out in more detail the symbiotic relation between intermediaries and their spaces by focusing on the dualism: intermediaries as collaborators versus competitors.

First, the role of intermediaries in shaping collaborative spaces. One of the main stated reasons by the Scottish Government for supporting community development is to achieve greater community empowerment (The Scottish Government 2009, 2015c). Communities and many intermediaries recognise that community groups who are developing energy projects can often learn as much, if not more, from other communities who have successfully developed such projects, or are currently going through the process of doing so. Here, intermediaries often play a primarily facilitative role to enable community groups to share and learn from one another’s experience. For example, in the Western Isles, several interviewees mentioned that Community Energy Scotland

there was integral to setting up Community Power Outer Hebrides, a network of community energy groups in the area designed to enable community groups to share information, experiences and tackle issues, as well as showcasing their work to groups who are considering energy projects.

In addition to facilitating the development of networks between community groups, intermediaries have also established their own networks in order to improve the support on offer. For example, four intermediaries (Development Trust Association Scotland, Plunkett Foundation, the Community Shares Unit and Rocket Science) have established a partnership to deliver a community shares support programme. This programme is funded by two other intermediaries, the Big Lottery Fund and Carnegie UK Trust. This programme was designed to fill a gap in the support that was already offered by those and other groups in Scotland, encouraging communities to think about alternative means of financing projects.

Another employee at an intermediary organisation had recently been involved in a 'road show' with a number of other intermediaries. Asked why this collaborative approach was chosen, she highlighted that rather than competing with one another, a collaborative approach can highlight the different strengths each intermediary has:

'That's one of the reason for doing this roadshow with different partners, because it's going to bring in different groups, and get them thinking in different ways. It is about presenting it in many different lights. Every intermediary has a handbag of tricks. For us it's about making sure we're in the handbag, and when appropriate, we're pulled out, if that makes sense?' (I011)

There are, however also concerns that the space for community energy intermediaries has become increasingly crowded. Some intermediaries therefore expressed reluctance to move into the community energy area, despite requests from community energy groups for support. The programme manager for one intermediary organisation remarked that she receives

numerous requests for support from community energy groups, but is conscious of the other support already available:

'I think the pressure is there to think about it. [But] we do shy away from energy projects a bit because there is already a lot of support for them, so we try to keep our budget for groups who have no access to other support mechanisms.' (I011)

Instead, she therefore prefers to signpost groups to other intermediaries who may be able to offer support. Here, the scarcity of funding was thus identified as a source of collaboration and networking. As most intermediaries have limited funds, they feel it makes financial sense to either facilitate collaborative support networks between community groups, develop their own collaborations or signpost to other intermediaries to ensure funds are targeted where they are most needed. Intermediaries thus actively shape collaborative intermediary spaces, and their own space within this, based on financial considerations and in consideration of the spaces already occupied by others.

The evidence from my interviews suggests, however, that the shaping of spaces for and by intermediaries is not always the result of facilitative and collaborative processes, but can also be the result of competition. The process of gatekeeping was referred to by a number of interviewees from community groups and intermediaries, although none suggested that their own organisation engaged in the practice. While all interviewees lauded the work of intermediary organisations, they observed that a small number of organisations may be motivated as much by self-interest as their desire to help others. Thus, whereas it may be assumed that the activities of intermediaries are aimed at empowering community groups (see also Shea 2011), one interviewee suggested that the idea of community empowerment may stand in contrast with intermediaries' own interests:

'There are a lot of agencies, who, I think it is in their interest to be gatekeepers, and they say 'oh these people don't have the capacity and can never do this sort of thing.' (I04)

This idea, that some intermediaries try to ensure that their services continue to be required by community groups, was echoed by members of two community energy groups. The employee of one community energy group in the Scottish Highlands recalled how she had at times ignored the advice of an intermediary support organisation as she was developing a community energy project. She had deemed the advice, and associated requirement that particular processes should be followed, unhelpful and more focused on fulfilling the intermediary's audit requirement than ensuring the successful completion of her project. Her energy project is now successfully up and running, and she has repeatedly received support and requests for advice from other community energy organisations. Unlike other community groups, however, she does not get invited to networking events organised by the intermediary, as she believes this would show that the development of a community energy project could be done *'more or less without [intermediary]'* (CG10).

The board member of another community group in the North of Scotland, CG3, also reported difficulty in gaining greater independence from an intermediary organisation (different to the intermediary referred to in the previous paragraph) of which her group is a member. She indicated that the intermediary controls communication between the different member groups as well as between the groups and other stakeholders:

'They [membership-based intermediary] let you know what they want you to know. [...] They want us [members] to share ideas, but I think they don't want us to talk about other things actually. I wanted to know how other members did things. I had an awful job getting this information out of them.' (CG3)

In addition to trying to ensure that communities continue to require intermediaries' services, the increasingly crowded space for intermediaries has also resulted that some intermediaries feel they may be in competition with one another. I attended the AGM of one community group, where the intermediary of which the group is a member spoke of the current difficulties the sector is facing, including the emergence of a number of other intermediaries offering a

similar service. The director ended her speech with the observation that despite the growing number of intermediaries they were not too worried, as they were certain that their intermediary would be *'the last one standing'*. The observation left the community members in attendance somewhat flummoxed. As one board member observed, while the intermediary has been integral to the development of their project, they do not see the intermediary as being a competitor of other intermediaries, and if they are in competition, then the community group would rather not be drawn into this.

It is important to emphasise, however, that community group members did not necessarily blame intermediaries for this competitive approach. Rather, the interviews suggested that community groups considered this part of a larger problem, of the precarious situation that some intermediaries are in and the pressures that they are under:

'My contact with [organisation], I get on very well with, and he's realistic. But he has to push, he is pushing and pushing and pushing, because they need results. Because they're reporting back to Scottish Government on results, and if they don't get results, they'll not get funding to pay their people and they won't get funding to pay us.' (CG10)

'I guess it shows the additional pressures that [intermediary] are under, and that for them, ultimately it is a business as well, and that they have their own aims which may be slightly different from those of the groups that are part of them.' (CG3)

These last two quotes are interesting as the intermediaries referred to are funded in different ways. Whereas the intermediary from the first quote is publicly funded, the second is primarily funded by its members. This thus highlights that the potential for competition over collaboration is not associated with one specific type of funding, but is the result of ways in which the intermediary landscape more generally has been shaped through the growth in number of intermediaries offering comparable services and the resulting precarity of income that many intermediaries experience.

The previous three sections have shown how finance has played an important role in shaping intermediary spaces. It has shown how a neoliberal economic logic, expressed through competitive funding based on a rationale of needing to deliver value for money has shaped the spaces for intermediary action. It has played a key role in shaping the ways in which intermediaries relate to communities, the state and to another. However, these sections have also shown that this is not a deterministic relation, and that there are spaces for alternatives. Intermediaries do seek to actively change the wider policy landscape, although neoliberal logics may persevere, by preventing some of speaking up. The last section showed, nonetheless, that scarcity of funding does not solely result in competition, but can also create new linkages within and between spaces, based on collaborative rather than competitive ideals. The next section will look at the future, by considering how emerging intermediary spaces may have the potential to break with the logics that have thus far governed them.

6.4.5 Expanding intermediary spaces – the emergence of new intermediaries

Earlier, this chapter set out the historical emergence of intermediary organisations. The subsequent sections above also set out how intermediary actions shape and are shaped by the spaces within which they operate. While the sections until now have focused on intermediaries as organisations occupying the space between communities and the state, this space itself is hybrid in nature, with fluid boundaries, which ensure that intermediary spaces are continuously being reshaped. This is evident in two ways: first through the ways in which intermediary spaces are also present within community organisations; and secondly, by how such organisations may increasingly be becoming intermediaries in their own right.

The first way in which intermediary spaces are not restricted to intermediary organisations is the presence of intermediary actors within other organisations. This is especially evident within community groups. The groups that were

interviewed as part of this study often had active community members, who were previously or currently employed by intermediary organisations or local government. This experience gained elsewhere was identified by these community groups as hugely beneficial in helping them navigate the context in which they are operating, being able to identify key constraints and opportunities, as well as a bringing with them a network of contacts that extends beyond the community boundaries. As such, while these individuals may not be able to provide funding or build institutional support, they do fulfil some of the other intermediary functions identified by (Geels and Deuten 2006), such as the translation of general knowledge into local contexts. Through this process, these individuals are thus integrating intermediary functions into the community space.

The second, perhaps more significant, way in which intermediary spaces continue to be reshaped is through the transformation of community groups into intermediaries, thus transforming intermediary spaces. In particular, as Chapter Four set out, community energy in Scotland is characterised by its emphasis on renewable energy as an income-generating source for communities, to be used for community development purposes. This also means that community energy organisations, as they become income-generating, may become intermediaries in their own right. They do this through the delivery of a number of functions, most notably the distribution of money to other community organisations and the facilitation of local networks.

Often referred to as ‘community anchor organisations’ (McKee 2012, Henderson 2015, Scottish Community Alliance 2017), the idea that community organisations can act as local intermediaries extends beyond the community energy sector, although asset ownership is often a key characteristic (Scottish Community Alliance 2017). Through the income-generating potential of renewable energy, however, the role of such community anchors has become potentially much more influential. In addition to providing a networking and advice function for other local community groups, they are now able to offer – sometimes significant – financial support as well:

'It's very interesting, I think, in the Western Isles at the minute, I've been thinking about this in another context, but effectively... the community owners are effectively small economic development agencies, that's what they have become.' (IO5)

Contrary to intermediaries relying on often insecure and time limited public funding, community energy organisations who have developed medium to large sized income-generating projects, have a source of income that is long-term, relatively stable and not tied to particular policy priorities. Thus, these community energy organisations will be in a potentially much more powerful position to shape local community development than many intermediaries are:

'I was telling our contact at [intermediary], that he should be getting on the board of all these renewable organisations, because they're going to be dishing out £300,000 per year potentially, from a board made up of volunteers out of goodwill, with no competency in that area necessarily.' (CG6)

It should be noted that the number of community groups who are earning substantial funds is relatively small, and is unlikely to expand in light of recent changes to the Feed-in Tariff. Nonetheless, the potential for either the expansion or reconfiguration of intermediary spaces with income-generating local community energy organisations may become more important. In other places, community groups who have received community benefit payments from commercial developments may also perform intermediary functions (see for example Markantoni and Quiroz-Aitken 2016). One of the questions that emerges from this is what the relation of these 'community intermediaries' will be with regional or national intermediaries: will their activities complement or replace some of the activities currently delivered by other intermediaries?

As many community energy organisations have only relatively recently begun to generate an income, it will take time to see how intermediary spaces, and the relations within them, are reconfigured as a result. Initial evidence from these interviews suggests, however, that while 'community intermediaries' may be able to act with fewer constraints than the intermediaries described in previous sections, due to their limited reliance on the state or other organisations for

funding. This means that both these emerging intermediaries' own work, and that of the communities they support, may be less constrained by the neoliberal economic logics set out in earlier sections.

Nonetheless, the local focus of these community energy groups combined with their relative freedom from state funding could also mean that they may be less likely to seek to influence policy in order to bring about structural change. At the same time, a diminishing role for 'traditional' intermediaries in facilitating community development on the ground could also affect their ability to influence policy, with the potential for actors to question whether these intermediaries are representative of communities' views. As these spaces for new, community-based intermediaries are still emerging and being shaped, the question whether this development will extend or reconfigure the space for intermediaries is one to be addressed in more detail by future research.

6.5 Discussion and conclusion: the hybrid spaces of community energy

This chapter has sought to contribute to the debate on how new spaces of low-carbon governance are negotiated. The combination of new energy technologies and new forms of governing have created new spaces of intervention where visions of low-carbon transitions are translated into practice (Hodson *et al.* 2013). Here, I have argued that these changes should be seen as part of a broader shift towards governance-beyond the state (Swyngedouw 2005). In Scotland, one aspect of this process has been the growing emphasis on (place-based) communities as spaces of intervention. Earlier literature on the changing nature of state-civil society relations has contributed to an understanding of the emergence of different types and spaces of intervention. In particular, research has suggested that new spaces of (community) governance can be understood as either invited or claimed (Cornwall 2004, Gaventa 2004, Mohan 2007), created through processes of regressive or progressive localism (Featherstone *et al.* 2012, Catney *et al.* 2014).

In this chapter I have adopted a relational perspective, focusing on the co-constitutive nature of the networks of which intermediaries are part. A focus on intermediaries, whose roles and spaces are defined by their 'in-betweenness' (Moss 2009) has enabled me to demonstrate the hybrid nature of the spaces they occupy and the practices within them. It has shown that the context of the 'contracting state' has been fundamental in shaping intermediary spaces, contributing both to a growth in number of intermediaries, but especially through the establishment of a financial relation with intermediaries which has influenced the type of support they offer to communities, as well as their ability to represent communities' interest at the policy level. This research has also shown though, that intermediaries have differentiated responses to these external influences, indicating that intermediary actions and the spaces emerging from them are a combination between external contexts and intermediary's own agency. It has thus shown that intermediary spaces can be conceptualised as hybrid neoliberal spaces (McCarthy 2005, Bridge 2014), showing aspects of both progressive and regressive processes of localisation of governance. This focus helps to contribute to a more nuanced understanding than that offered thus by the rather binary idea of invited versus claimed spaces (see also Kesby 2007).

Tracing the historic, current and possible future ways in which intermediary spaces are shaped shows that these spaces are formed as intermediaries integrate, contest and translate neoliberal logics, depending on the time, place and intermediaries' own agency. The configurations that have emerged here are specific to the Scottish context, which interviewees perceived to have higher levels of support for community energy groups compared than other parts of the UK. This higher level of support, delivered through intermediaries, has potentially contributed to the relatively high reliance on government funding, compared to other contexts, where interviewees indicated that intermediaries may have stronger activist roots and a more antagonistic relation with the state. Secondly, as discussed in section 6.4.5, intermediary spaces are not restricted to intermediary organisations. What characterises the Scottish context is the

fluidity of these spaces, with many active community group members in rural Scotland having previously worked, or currently working, at intermediary organisations and vice versa. As a result, the separation between intermediary and community spaces is not as big or clear as it may be elsewhere. Despite these specifics of the Scottish context, this chapter has a number of findings that transcend this specific empirical context.

First, it shows how intermediary spaces are shaped through alternatively integrating, translating, and contesting external logics. The research was driven by a perceived lack of attention in the literature for the contextual factors that shape intermediary spaces and capacities. I have sought to address this by adopting a spatial lens to convey the situated nature of these spaces, showing they are not neutral, but shaped by the ongoing determinant interactions with other spaces (Gaventa 2004, Massey 2005, 2009). Parag and Janda (2014) critiqued the literature on intermediaries for the lack of recognition that intermediaries have an independent agency or capacity. Here, I have therefore sought to show that while intermediary actions and spaces are shaped by external influences, they are also shaped by intermediaries' own logics and priorities. In particular, I highlighted that despite the competitive environment in which many intermediaries operate, such external factors can lead to differentiated actions. Where some highlight collaboration and the development of networks as coping strategies, others have adopted competitive and gatekeeping practices. These different responses indicate that despite similar structural forces that shape intermediary spaces, intermediaries have the agency and capacity to develop their own directions within this. This highlights the ways in which intermediary spaces are not solely shaped by the integration of external logics, but are also actively (re)shaped through processes of translation and contestation. While Parag and Janda (2014) suggest the notion of 'middle actors' rather than 'intermediaries' to account for this agency, I argue that the continued use of the term intermediary, while accounting for the agency of these actors, enables a more holistic understanding of the relational and co-constituting nature of intermediary spaces and those around them.

Secondly, this chapter contributes to the broader debate around the new spaces for intervention created by state-civil society restructuring. The evidence presented here shows that intermediary spaces and practices are to a significant extent shaped by neoliberal economic logics. Notions of cost efficiency and value for money have become ingrained in many intermediaries' activities, shaping their agency and capacity to act. This in turn fundamentally reshapes intermediary spaces and how these connect to both the sphere of communities and the state. As stated above, it also shows, however, that intermediaries have differentiated responses to these logics. It thus builds on McCarthy's (2005) work on hybrid neoliberalisms, by showing how particular, actual forms of neoliberalism are constituted and supplemented in particular places. At the same time, this research also shows how intermediary spaces are not solely the background for these processes, but how intermediary spaces themselves are actively (re)shaped through them. Additionally, the emergence of new intermediary spaces further shows the opening up of possible alternative spaces for intermediaries. This latter section does once more show that space is not fixed, but, in the words of Massey (2005) 'unfinished and always becoming' (p.59) and thus also offers the opportunity for alternative spaces of possibility.

6.6 Epilogue

This chapter has sought to provide a novel perspective on the issue of governance restructuring, by applying a relational approach to space and power to the study of intermediaries. It thus builds on the previous chapter which showed how energy governance is distributed across a particular space (the 'community'), to focus on the connections and interactions between that space and others. This chapter has shown how the growth and diversity of community energy projects discussed in Chapter Four is also reflected in the growing number of intermediaries operating in the field. Both can thus be seen as part of a broader process of devolution, where there is an emerging focus on community-level governance of energy resources, as an alternative to both market- and state-ownership of energy (Chapter Two). This focus on

intermediaries adds to the discussion of the emergence of new spaces of governance by showing how such spaces and the socio-political power relations that form them are organised and re-organised. It does so by showing the ways in which external logics are incorporated, translated, and contested by intermediary actors. While the focus on intermediaries is thus interesting in its own right, it also provides a lens through which both the procedural and spatial dimension of changing state-community relations can be analysed.

7 Concluding discussion and reflections

The purpose of this chapter is two-fold. Firstly, I draw together the findings and discussions from the previous chapters to consider what has been learnt about the role of community energy initiatives in achieving greater energy democracy. The findings and analyses presented in the preceding chapters correlate with the four research questions set out in Chapter One. In these respective chapters I have analysed four aspects of community energy governance: the roots of 'energy democracy' as an analytical concept and the central role assigned to associational groups (Chapter Two); the make-up of the community energy sector in Scotland (Chapter Four); the democratic qualities of internal community governance (Chapter Five); and the connections between different actors and spaces in the Scottish community energy sector (Chapter Six). My primary purpose here (section 7.1) is to discuss the cross-cutting themes that emerged from these chapters. By doing so, I provide a more holistic, integrated discussion, to explain how the findings meet the aim of this research: *To better understand if and how community energy initiatives in Scotland are contributing to greater 'energy democracy'*.

The second purpose of this chapter is to reflect on the lessons learnt, and outline the limitations and implications of this study (section 7.2). Here, I offer theoretical and methodological reflections, set out the policy implications of my research, discuss the limitations of this study, and identify directions for future research. I will finish this chapter with a conclusion that summarises the findings and their implications (section 7.3).

7.1 Discussion: community energy as diverse, hybrid and democratic

In this section I discuss the cross-cutting themes identified from my findings in more detail, and how these relate to the academic literature. In the preceding

chapters I have sought to deepen understandings of community energy governance in Scotland, and have demonstrated how this can be considered as an expression of state – civil society restructuring. I have added a ‘democracy’ lens to this discussion. This added dimension is relevant and important, as issues of democratic control, accountability and legitimacy become increasingly blurred when traditional political structures are complemented by new forms and institutions of governance (Klinke 2016).

As a starting point, I sought to challenge the assumption that distributed, community-owned renewable energy generation is inherently more democratic. I established that such assumptions are still often prevalent in the energy democracy literature (Chapters Two and Five), which assumes that locally evolved norms and collaborative processes help communities to manage resources more sustainably and equitably (Dalby and Mackenzie 1997, Little 2002, Taylor Aiken 2014, 2015, 2016a). Such assumptions are also present in Scottish community energy policy, as well as other ‘community’ policies. These policies have emphasised the importance of place-based communities in contributing to community-led development and regeneration, assuming such groups are best placed to manage resources to the benefit of the local population (Chapter Five, see also Bynner 2016). This research has critically analysed these assumptions, without dismissing the roles that communities can play in energy governance. I have done this by focussing on how the governance spaces and practices for community energy are co-produced by the interactions between internal community practices and organisations, and their larger external contexts.

In sections 7.1.1 – 7.1.3 I discuss three key points that have emerged from my findings. First, the importance and implications of recognising the diverse nature of the Scottish community energy sector and internal forms of governance, as presented in Chapters Four and Five. Second, the hybridity of the emerging spaces for community energy governance, as is evident throughout my empirical chapters, but especially in Chapter Six. Thirdly, I will discuss the implications of conceptualising community energy governance as diverse and

hybrid for its potential contribution to energy democracy. I will conclude this section with a brief summary that links this discussion back to the aim of this research.

7.1.1 From community energy to community energies: community energy as a diverse practice

In this section I discuss the diversity of the community energy sector, and the implications of recognising this diversity. I challenge the presumed connection between ‘forms and norms’ that continues to be prevalent among (some) activists, policy makers and researchers (Chapters Two and Five), and discuss the implications of recognising diversity for assessing the transformative potential of community energy. Through highlighting the different constitutive dimensions of community energy, I provide empirically-informed evidence for Hodson *et al.*’s (2013) argument that it is important to understand how spaces of intervention are created, maintained, and contested if we want to understand how visions of a low-carbon future are translated into reality.

The shift in recent decades towards more horizontal, networked forms of governance based on interactive relations between the state, civil society and the market (Swyngedouw and Heynen 2004, Klinke 2016) served as a starting point for this thesis. As part of this shift, there has been a growing emphasis on ‘communities’ as sites and actors of low-carbon intervention. What is interesting about these calls, is that they have emerged from a broad range of actors, including activists, as well as policy-makers from across the political spectrum (Chapters Two and Five). The various meanings of, and visions for, community energy governance make it a slippery concept for analysis. This not only limits our ability to understand these practices, but also how they relate to broader societal transformations such as the restructuring of state-community relations (DeFilippis *et al.* 2006, Lawhon and Murphy 2012)

The conflation of different practices into the concept of community energy means that often positive, normative assumptions are applied to a broad range

of approaches to energy generation, without further questioning their different scopes, meanings and impacts. As both Chapters Four and Five show, however, this presumed connection between ‘forms and norms’ – that decentralised community action equates fair and equitable processes and outcomes – is problematic, because of both diversity within and between community groups. This risks obscuring the diverse histories and traditions of these organisations, the myriad of causes and experiences to which the development of community energy projects is a response, and the power relations within which these developments are embedded (Schlosberg 1999, DeFilippis *et al.* 2006, Shove and Walker 2007, Lawhon and Murphy 2012).

Chapter Four therefore served as first step towards enhancing this understanding of how the diversity of the sector affects, and is affected by, the spaces created for it by internal and external actors. The typology that I presented in this chapter showed that the socio-technical configurations that make up community energy in Scotland are rooted in specific spatial and temporal contexts and reflect wider social, economic and political relations and processes. This was visible, for example, in the dominance of projects in the Highlands and Islands, reflecting both the historical framing of a ‘Highland Problem’. In this context, community energy can be understood not only as a continuation of the integration of energy generation and socio-economic development (as evident in the North of Scotland Hydro-Electric Board’s ‘social clause’, Chapter One), but also as part of a more recent emphasis on community-led development, which has strong roots in the Highlands, not least due to the community land sector. As such, community energy can be seen as one example of a growing range of Scottish Government policies focused on asset-based development by geographical communities. Despite the geographical dominance of the Highlands and Islands and the dominance of ‘Community Developers’ as a socio-technical configuration, the typology also highlighted the diversity of actors that constitute the community energy sector, the result of both changes to external factors such as changing to funding mechanisms as

well as internal factors such as previous experience with community (energy) projects and the desired outcome of developing a community energy project.

I highlighted the diversity of community energy governance in a second way in Chapter Five, by focusing on internal governance processes. There, I demonstrated the diverse ways in which democratic processes are established and negotiated within community energy groups, by focusing on three key processes which have been deemed critical to democratic energy governance but for which limited empirical evidence is available: decision-making (Farrell 2014, Kunze and Becker 2014), accountability (Chavez 2015, Weinrub and Giancattarino 2015) and dispute resolution (McHarg 2016).

This analysis showed that groups have different methods for shaping participation in community governance (voting, consultation) and that participation may change depending on the stage of the project. It also showed that the nominal inclusion of (previously) underrepresented groups in decision-making does not automatically guarantee their transformation from powerless to powerful as internal forms of exclusion may remain (Young 2000). This again showed that there are a broad range of governance practices within community groups, based on the interaction between local needs and priorities and external demands and constraints. While both the Scottish Government and intermediaries are fundamental in setting participation parameters (i.e. insisting that communities hold a community consultation and ballot; for communities of place that all residents within a particular postcode area are eligible to join the community group and thus can influence internal governance), communities negotiate and sometimes subvert these processes in their quest to develop a community energy project. For some communities this means introducing additional efforts to recruit a diverse membership, for others this processes is more subversive, for example through ignoring accountability procedures.

Combined, these examples thus highlight the diversity of community energy practices both within and between community groups. This enabled me to show

the intersection between community organisations and the structures around them, in order to see how these have inhibited or facilitated the emergence of particular socio-technical configurations (see also Walker and Cass 2007). In one way, this diversity shows that groups have the ability to develop community projects based on their own needs and according to locally influenced practices, and thus influence the direction of not only their own projects, but also the community energy sector more widely. On the other hand, it is evident that external structures also play an influential role in shaping projects, with for example changes to funding mechanisms of influence on the development of the community energy sector over time.

Recognising this diversity is important, because it affects how we might conceptualise the ability of the community energy sector to transform the socio-economic relations embedded in the current energy system. A key discussion in the literature on diversity and pluralism is whether a shared vision or direction is required to challenge dominant power relations. Harvey (2005), for example, has argued that a shared vision is a prerequisite to challenge dominant power structures. On the contrary, others such as Schlosberg (1999, 2004) have adopted a less structural approach and have argued that diversity means that dominant power relations can be confronted in localised places, where they are experienced. However, as the next section discusses, my findings demonstrate that the relation between communities and external actors is not a binary one of co-optation or confrontation. By paying attention to community groups' trajectories and drivers, it becomes evident that community energy in Scotland occupies a hybrid space, emergent through the continuous interactions between bottom-up and top-down drivers.

7.1.2 Neither 'counter-conduct' nor 'government through community': community energy as a hybrid space

In order to understand the extent to which the community energy sector can alter existing relations within the energy sector, it is important to understand how, why and by whom the terms of change are defined (Lawhon and Murphy

2012). Previous research on community governance often falls within two camps: either romanticising or dismissing its importance (Chapters Two and Five). The energy democracy literature presented in Chapter Two is closely associated with the first perspective – considering community governance as the ideal means through which to reshape existing power relations in the energy sector and beyond, while an emerging body of academic literature from the UK is more closely aligned with the second perspective (e.g. Featherstone *et al.* 2012, Park 2012, Catney *et al.* 2013).

‘Community’ thus can be seen as a space for ‘counter-conduct’, but also one for enacting and sustaining state power, i.e. ‘government through community’ (Taylor Aiken 2016a, p.135, see also 2016b, Rose 1996, 1999, 2000). The community development has suggested that whether community is a space for counter-conduct or sustaining dominant power relations, depends on whether such spaces are ‘claimed’ or ‘invited’ (Hickey and Mohan 2004, Kesby 2007, McAreavey 2009).

At various points this research has shown that the spaces for community energy do not simply represent a ‘claimed’ space for counter conduct or an ‘invited’ space where state power is enacted, but that, instead, the spaces for community energy should be seen as hybrid spaces. I first showed this in Chapter Four, through focusing on the diversity of the sector. The discussion in that chapter showed that the configuration of the community energy sector, can be explained by a mix of endogenous drivers and exogenous drivers. For example, the dominance of the community development-model of the Scottish community energy sector can be explained to some extent by the emergence of the community land movement. As I have argued elsewhere (van Veelen and Haggett 2016), community land ownership has been an important driving force and enabler for some community energy projects, but has also had an important *indirect* impact – including on communities who do not own land – by creating a context where asset-led community development has become increasingly seen as ‘normal’. Nonetheless, the emergence of this particular model of community energy development was also driven by the introduction of the Feed-in Tariff,

enabling groups to earn a substantial income from the energy generated (Bomberg and McEwen 2012). Changes to external funding regimes have thus also played a key role in shaping the sector (Chapter Four).

While Chapter Four showed how the availability of particular types of funding has affected the shape of the community energy sector, Chapter Six sought to show in more detail the *processes* through which this happens. This highlighted that the influence of funding is not only a question of either the availability or lack of funding, but that the ways in which funding is made available and managed plays an important role in shaping the sector. I placed this within a context of neoliberalism and the contracting state. Here, the dual meaning of ‘contracting’ is especially important: the new relations that are formed between community energy groups, intermediaries, and the state are not only the result of the state getting smaller, but also the formation of new – financial – relations between these actors. It thus builds on recent literature which has sought to frame the emergence of ‘community’ as a space of action and intervention in a broader process of neoliberal state restructuring, where the emergence of community governance is seen as a way to reduce the provision of state services, extend market-like mechanisms into the social sphere and emphasise individual responsibility (Featherstone *et al.* 2012, Catney *et al.* 2014, Taylor Aiken 2016a, Taylor Aiken *et al.* 2017).

Focussing on the funding processes that underpin these changing relations highlights the ways in which Scottish Government funding processes integrates particular neoliberal logics, such as an emphasis on value for money and competitive bidding, into the community energy sector. This can be considered an empirical example of Wacquant’s (2012) assertion that neoliberalism has a distinct and recognisable core: the harnessing of the state to impose the stamp of the market onto civil society. The allocation of funds is also related with the setting of performance targets, which Peck and Jones (1995) and MacKinnon (2000) argue creates a pseudomarket, forcing intermediaries to work to neoliberal imperatives. This not only means intermediaries can feel a need to ‘push’ community groups to deliver results that meet (externally-defined)

deadlines, but also that they might act as ‘gatekeepers’ or seek to outperform one another in the struggle to maintain their share of funding (Chapter Six, see also Peck and Jones 1995, Creamer 2015).

Nonetheless, the evidence presented in Chapter Six also shows that this process is uneven, and that the spaces for community energy are also shaped by the translation and resistance of neoliberal logics. While some intermediary organisations may act as gatekeepers or feel they are in competition with other organisations, other such organisations have developed collaborative relations with one another in an effort to make the most of the limited funding available to them. The same can also be seen at the community level. While Creamer (2015a) has shown that the competitive nature of funding can inhibit collaboration between community groups, some groups included in this research were also part of intra-local and extra-local networks through which they shared their experiences and sought to foster mutual learning. Such networks can be developed formally, as is evident for example through European-wide initiatives to connect community energy groups, such as the Community Power project and RESCOOP, or can be more informal in nature. As I have also argued elsewhere (van Veelen and Haggett 2016 - Appendix 1), such networks – either formal or informal – are important as they can help avoid what Swyngedouw (2004, p. 43) refers to as ‘particular localism’ or ‘militant particularism’, and instead contribute to the development of emancipatory, network-oriented strategies that transcend a single scale or issue.

Additionally, while intermediaries’ work may to an extent be guided by neoliberal logics, many of these organisations are also seeking to strengthen communities’ capacities, encouraging to become more independent from the unpredictability and restricted nature of external funding in the future (Chapter Six). In that sense, while community landownership has often been framed as an empowering process, enabling communities to decide their own future, for some of the landowning communities involved in this research, it is the income-generating nature of community energy that helps transform this ideal into practice. While many of the groups included in this research continue to rely on

external funding to a greater or lesser extent, having their own source of income helps to enable them to speak to other funders as equals rather than clients. It will thus be interesting to see whether this will constitute a fundamental change in the relations between communities and the (neoliberal) state or whether this will simply show the open-ended, plural and adaptable nature of neoliberalism (Peck 2008).

In summary, in this research I have shown that the spaces for community energy can be seen not only as diverse, but also as hybrid, encompassing a range of different practices and different ways in which community groups, intermediary organisations and the Scottish Government relate to, and interact with, one another. While the frame of the 'contracting state' is a helpful lens to consider the changing relations between communities and the state, it is important to recognise that this process is temporally and spatially uneven. In the next, and final, section of this discussion, I will set out the implications of this for the democratic qualities of community energy.

7.1.3 Community energy governance as democratic energy governance?

If the spaces for community energy are diverse and hybrid in nature, what are the implications of this for their democratic qualities? By introducing the concept of energy democracy (Chapter Two) and discussing the democratic nature of community governance (Chapter Five), this thesis has sought to bring an additional dimension to the debate on community governance discussed in the previous section. Much of the (primarily activist) literature on energy democracy is concerned with countering what it perceives to be an increasingly commodified, individualised and consumption-based society (Chapter Two). Instead, many proponents of energy democracy consider (re)claiming the rights to energy as a means to reshape societal relations more broadly. I showed in Chapter Two that communities are at the heart of this vision, invoking ideals of associative democracy which sees self-governing voluntary bodies as the

primary means of both democratic governance and organising social life (see also Hirst 1994).

Implicit in this vision is a belief that decentralisation equals democratisation (Chapter Five). Considering community energy as both diverse and hybrid is at odds with this vision for two reasons. First, when 'community' implies both a normative social good and as guaranteed to deliver sustainable resource governance, communities - whilst seen as part of larger political struggles - are in themselves often framed as apolitical and homogenous (Chapter Five). Thus, although some energy democracy proponents have argued that

*'[The] vision of a democratized energy future includes an informed and conscious community that understands the **right** relationship of people to natural resources and the need to live in ecological balance' (Weinrub and Giancatarino 2015, p.4 – emphasis added by me)*

the evidence presented in this thesis shows that the diverse nature of community energy means that it would be overly simplistic to assume that the relationship between communities and energy will be the 'right' one, or that such a relationship will be established 'naturally', without the exercise of power (Lane and Corbett 2005). The diversity of socio-material relations within the community energy sector (Chapter Four) and the varied, often locally-specific, nature of community governance practices (Chapter Five) shows that there are a multitude of possible relations between people and resources. The development of these relations is not guaranteed to be a 'natural' process. Rather, the process to define a community position can be a power-laden struggle; the result of disagreements and differences of opinion on what this 'right' relationship should look like (Chapter Five, Appendix 1).

There is a second dimension to the debate on democratic governance, which is the ways in which multiple, and sometimes, overlapping and contradictory political territories relate to one another (Chapter Two, Bridge 2011). In other words, to understand how community energy can contribute to greater energy democracy, it is insufficient to look at internal community governance alone.

While developing energy projects, communities are part of a wider network of governance that co-shapes the spaces for community governance. The emergence of such dispersed and networked spaces of governance has been lauded by some as a process of democratic transformation (Klinke 2016). As my discussion on hybrid spaces shows, the idea of horizontal, networked forms of governance (rather than hierarchical) is only partly true. While communities, and the intermediaries that support them, have found or claimed spaces to challenge policy and shape the spaces within which they operate, they also continue to be shaped to a greater or lesser extent by external forces. There are thus further questions to be asked not solely about the democratic qualities of internal community governance, but also the democratic qualities of how the community energy sector is governed more generally.

While this research has addressed the issue of how external factors have shaped the community energy sector, it has not explicitly considered the question of who is left out in this process. Smith and Stirling (2016, p. 9) have argued that for democracy to have any practical progressive meaning it should enable 'access by the least powerful people and communities to the capacities for challenging the directions of the innovations that affect them.' Throughout the course of this research I have spoken to many different communities that are involved in community energy projects, but there are still many more communities who are not involved. Some energy democracy proponents have argued that the purpose of energy democracy is to have an energy system that benefits the public good (Cumbers *et al.* 2013, Angel 2016b). While renewable energy in itself may be regarded as providing a public good by definition (reducing carbon emissions), energy democracy proponents would argue that this in itself is insufficient, and that the social and economic dimensions of our energy system should also benefit society. As such, it is worth considering whether energy democracy requires a shift away from thinking about particular forms of energy governance (e.g. community, state) towards thinking about how energy governance can best benefit the public good.

A society-wide rather than a localist approach to is thus required, where legitimacy is created across multiple moments in a broader democratic system (Parkinson 2006) in order to alter foundational issues such as finance, access and operational management (Bakker 2008). At the same time though, re-scaling community energy from the community level to a national or international level also means that democratic claims are likely to run up against counter claims, whose ontological assumptions about the meanings of democracy they do not necessarily share (Fraser 2008, Chapter Two). The question is thus, how can the diversity and hybridity of the community energy sector lead to transformational change of the energy system?

Emphasising the diverse and hybrid nature of community energy in Scotland thus has important consequences for thinking about what energy democracy means and how it can be achieved. The empirical-analytical approach (Klinke 2016) offered in this thesis has gone some way to explain how communities enact democratic practices, but did not fully assess how potentially competing claims of democracy – which are to be expected in a diverse and hybrid sector - can be resolved. While I presented numerous options to think through the concept of energy democracy in Chapter Two, a singular answer to this question remains difficult. This is not least due to a lack of existing academic material on energy democracy to build on, but also because it raises a fundamental question around the benefits of a singular interpretation of energy democracy, considering the diverse philosophical and political interpretations and enactments of ‘democracy’. Going back to the material presented in Chapter Four, critical pluralists such as Schlosberg (1998, 1999) would argue that diversity of interpretations is a strength rather than a limitation. At the same time, not defining ‘energy democracy’ can also be seen as overly relativistic, where everything and anything can be described as ‘democratic’.

After further reading it is comforting to know I am not the first one to struggle with this issue. The issue of what democracy *is*, Mouffe (2000) argues, is one of the most contentious issues among political theorists – and perhaps it is thus acceptable to not provide a final answer to this issue within the confines of this

thesis. I do however want to offer some reflections. To think through the debate between 'universalists' and 'contextualists' (Mouffe 2000, p.62) it is worth returning to the discussion on pluralism from Chapter Four. There, it was suggested that it is possible to compare diverse understandings or practices as long as this is done based on a recognition of the situated knowledges from which different approaches emerged (Haraway 1988, Guy and Moore 2007). In other words, would the people of a particular time and place consider their forms of governance to be democratic (Collier and Adcock 1999)? Such a perspective can help focus on the political construction of claims of democracy, rather than validate all claims (Mouffe 2000). As claims for democracy compete – either within or between communities, or between communities and other scales of energy governance – it is thus important to question whose interests are advanced through these claims.

Young (2000) offers a different, but related, insight into how democratic governance can be conceived and enacted at different scales. She argues for a 'relational autonomy', where – similar to associative democracy - local governance grounded in situated knowledge should be the primary way in which social life is organised, but where other locales have a legitimate right to make claims on autonomous locales and negotiate their relationships. Unlike the hierarchical model of devolution, this model encourages intergovernmental negotiations between equal partners. This is however, primarily an ideal. Young (2000) herself acknowledges though, that '[i]t would take another book to work out in detail the institutional design' (p.232).

What these different views have in common, however, is that as their starting point they consider democracy not to be a set of institutions, but as both a space and a project. Viewed this way, democracy can be seen as a space where society is able to assume responsibility for (i.e. to process or tackle through particular institutions) its issues, demands and conflicts (Melucci 1988). Simultaneously, this means democracy can be seen as a project concerned with ordinary citizens' possibilities for becoming political beings through self-discovery of common concerns and of modes of actions for realising them (Wolin 1996).

Such a perspective makes possible a 'politics of everyday life' without annulling diversity or concealing the use of power behind the organisation of social life (Melucci 1988, p.259).

Thus, to summarise, community governance – in particular through engagement with everyday resources such as energy – can offer the possibility for citizens to become 'political beings'. To analyse its democratic potential, it is important, however, to understand the processes through which citizens express and enact common concerns and visions. This not only applies to processes within community groups, but also beyond them. As the concept of energy democracy grows in popularity among different stakeholders it is important to consider the different ways in which claims for greater energy democracy are constructed. As such claims run up against counter-claims, an understanding of whose interests are advanced through these processes is essential. Such an approach has the potential to accommodate the diversity and hybridity that is present within both the community energy sector and among energy democracy proponents, and use this as a basis for normative evaluation.

7.1.4 Summary

Here, I wish to briefly summarise this discussion and connect it back to the purpose of this research: To better understand if and how community energy initiatives in Scotland are contributing to greater 'energy democracy'.

What this discussion has shown, is that conceptualising community energy as a diverse set of practices taking place in hybrid spaces has important consequences for thinking about how community energy can contribute to greater energy democracy. A focus on the diversity of the socio-material configurations that make up the Scottish community energy sector has enabled me to show how these different configurations reflect historic and current interactions between community priorities and the wider policy landscape. It thus shows empirically how spaces of intervention are created and contested

(Hodson *et al.* 2013) as a result of these interactions, both at a community level (Chapter Five) and at a wider sectoral level (Chapters Four and Six).

Recognising and highlighting this diversity is an intrinsic part of the critical pluralist perspective discussed in Chapter Four. This perspective has, however, also been critiqued on the basis that some (for example Harvey 2005) consider diversity to inhibit the potential for local movements to challenge dominant power relations, and thus limits their potential to transform the socio-material relations embedded in energy systems. Here, I have contributed to this debate by showing that an interpretation of spaces for community energy as either antagonistic to, or co-opted by, external actors (particularly the state) is overly simplistic. Rather, I have demonstrated that the spaces for community energy in Scotland can be seen as hybrid spaces, where the interactions between community energy groups, intermediaries and the state are spatially and temporally uneven. It thus shows there is not a singular process of devolution, but that these processes, and the spaces emerging through them, are multiple, and show both regressive and progressive dimensions of localism (Chapters Five and Six).

This view of community energy as diverse and hybrid is, however, at odds with the singular view of 'community' and its assumed sustainable management of resources, presented in both the energy democracy literature and Scottish Government policy (Chapters Two and Five). Rather than assigning particular normative qualities to communities, I have argued that it is key to pay attention to the way governance is enacted in practice. When seeking to understand the potential of community energy to contribute to greater energy democracy, the recognition of diversity and hybridity has thus important consequences for how 'democracy' is conceptualised and evaluated. I have argued that a singular interpretation of what democracy (and thus energy democracy) is, would be at odds with my critical pluralist conceptualisation of community energy. Instead of seeing democracy as a prescribed set of institutions or processes to be replicated from place to place, it is perhaps more relevant to consider it as a space or project where society can discover, express and address common

concerns. Such a perspective has the potential to build on people's situated knowledge and experience to demonstrate whether community practices contribute to greater democracy. As my findings have shown, community energy can potentially be seen as such a democratic space, but that it remains key to consider whose interests are advanced within these diverse, hybrid spaces of community energy.

7.2 Reflections and implications

Building on the previous discussions which sought to place the finding of my thesis within broader academic debates, in this section I reflect on my theoretical and methodological choices, and discuss the implications of my research.

7.2.1 Theoretical reflections

'In historical terms, 400 years of politics based on the nation state is not that long. It has to be possible to think of other means of spatializing politics, thereby making things public in a different way' (Amin et al. 2005, p. 811)

What is interesting about the energy democracy concept is that it seeks to re-spatialise politics. Whereas, traditionally, conceptualisations of politics and democracy have often focused on the scale and role of nation state, it is interesting to note that the energy democracy movement emphasises both the subnational (community) and supranational (international networks) scale. Having both important political and geographical dimensions, energy democracy is thus a concept that benefits from an interdisciplinary perspective.

Bringing insights from geography and political science together has been identified as 'critical' to broaden the social science energy research agenda (Fuller and McCauley 2016). Indeed, as Nissani (1997, p.205) argues, 'immigrants' can bring fresh insights and methodologies into disciplines. In this thesis I have sought to combine these research disciplines with a dual aim: (1) to provide a critical analysis of what the concept of 'democracy' can bring to

existing social science energy research, and (2) to bring greater geographical sensitivity to debates on democratic energy governance.

Energy democracy, through its emphasis on community level governance of energy resources moves can be considered one way of rescaling politics. This rescaling takes seeks to shift governance in two directions: towards the local and the global. While the energy democracy movement is international in scope, its focus is explicitly local. By focusing on questions of how and where energy is generated and distributed, and who controls these processes, the energy democracy concept highlights the spatial dimension of questions around energy. In doing so it re-spatialises politics through both material means, but also through engaging people in what it means to govern democratically. It is currently unclear, however, to what extent this process affects participation in democratic governance beyond the community sphere.

This interdisciplinary approach, while providing novel contributions to academic debates on energy governance, also has its challenges. The literature on interdisciplinary (energy) research sometimes has a tendency to assume that one works as part of an interdisciplinary team (e.g. Mallaband *et al.* 2017). However, as an individual conducting an interdisciplinary project, one is perhaps more regularly confronted by the lack of disciplinary boundaries and guidelines that one may normally encounter in research. While such a lack of boundaries can result in new approaches, insights, and innovation (Nissani 1997, Sovacool 2014a, Mallaband *et al.* 2017), it also has its challenges. In all research, knowledge of the field is important, both in itself and because, as (McNeill 1999, p.318) argues ‘originality cannot exist without reference to an established core of knowledge’. The questions that arise though, are ‘what constitutes the field?’ and ‘over which literature should the researcher have an adequate command?’ (McNeill 1999, p.318). For interdisciplinary researchers it can be more difficult to determine the knowledge base required. I have found the need to understand multiple literatures on which I have drawn – from feminist democratic theory via neo-Marxists texts on neoliberalism to post-

structural understandings of space – and to combine these into a coherent project a key challenge in this research.

One way in which I have made this manageable is through constructing each chapter as a specific paper, enabling me to approach my research question from different angles, using different methods. This has been the result of an iterative approach between theory, methods and data. As a result of this approach, however, I prioritised each chapter's possible contribution to the wider literature, rather than its contribution to this thesis. While moving between different ideas without clear commitment to a specific theoretical or disciplinary position could be easily criticised, this issue-led approach fits well within the broader interdisciplinary nature of my research.

This iterative, interdisciplinary approach also means, however, that much learning took place along the way. For example, the questions of democracy and whether it is something that is performed through action on the ground (but could thus mean all things to all people) or whether it is a universally moral concept, is a key theoretical conundrum that emerged from my data, rather than a debate that informed my collection of data. As such, this thesis provides new questions as well as insights. As I will explain in the final section of this thesis, further continued engagement with the different disciplinary debates will help to shape future research directions.

7.2.2 Methodological implications

In this section, I reflect on the implications of my chosen approach for my findings and conclusions.

7.2.2.1 Choice of research methods – constructing a partial map

First, I want to reflect on how the use of mixed qualitative and quantitative research methods has helped me develop a new understanding of community energy, but that such an understanding can only ever be partial, rather than all encompassing.

I decided during the first year of my PhD research to adopt a mixed methods approach to my research. As I discussed in Chapter Three, one of the reasons for adopting a mixed methods approach was to improve my quantitative research skills. As I also explained in that chapter, however, the initial quantitative component of the research did not go as intended. This shows the challenges of employing research methods with which one is less familiar. Nonetheless, this served as a valuable learning experience which helped me better understand both the uses and limitations of particular quantitative approaches. I believe this is especially valuable working in an interdisciplinary environment. An engagement with different research methods can thus help with the development of a shared language and understanding in interdisciplinary environments.

The key reason for undertaking mixed methods research in my case was to develop a multi-scalar analysis of community energy governance. Despite my use of different methods to focus on different scales, the results still only sketch a partial map of community energy governance. The purpose of this research was not to triangulate my findings in order to develop a singular understanding, a universal 'truth', but rather to highlight what different methods can tell us. This approach has thus demonstrated how the forms of governance that have emerged are the unique result of the interaction between local and external contexts, and that these interactions will be different for each community group. I thus consider a search for universal, predictive 'truths' fruitless, as this disregards the diversity and uniqueness of each time and place.

Consequently, I believe that as a researcher one can only ever construct a partial map, based on one's research interests, methods and methodological underpinnings. For example, my focus on democratic practices was at the cost of a greater emphasis on what 'democracy' means to my research participants. The next section will explore the methodological implications of my research in more detail.

7.2.2.2 *Reflections on my methodology*

'Real learning always entails a struggle to understand the unknown.' (Harvey 2010, p.1)

Writing this reflection on methodology, and thinking through my approach to this research project, has made me realise the multiple truths in Harvey's quote above. This thesis has not only been (at times) a struggle to understand the unknown, but the interdisciplinary approach also meant it was at times a struggle to identify *what* the unknown is in the first place, and *how* might I come to understand it. Here, I want to set out the implications of my research methodology, and the methodological insights gained as a result of conducting this research.

As I discussed in Chapter Three, my research methods were the result of a pragmatic approach to research, where theories and methodologies were integrated in a way that I believed were most useful for gaining a better understanding of the governance of community energy projects. The development of new ways to conceptualise democracy (section 7.1.3), also has important methodological consequences. The question whether one adopts a universal interpretation of what it means to 'be democratic', or whether one sees democracy, as Young (1990, p.5) 'always situated in concrete social and political practices', has clear ontological and methodological implications. This was not necessarily a question I had engaged with at the time I developed my methodological approach, as the concept of energy democracy had not yet appeared on my radar. It has been an interesting experience, and certainly at times a struggle, to retrospectively consider what impact my methodological approach has had on my conceptualisation of democratic governance, and this research in general.

In this research, I have adopted a mixed interpretation of democracy, as a reality that can be observed through particular practices (e.g. dispute resolution) but also as something that is locally situated. This fits with the critical realist approach that (McKee 2009) has advocated: to place greater emphasis on the

‘art of governing’ rather than the ‘rationales of governing’. This approach has enabled me to apply ideas from a Foucauldian governmentality approach to a more policy-oriented setting and thus look at the messy empirical realities (McKee 2009). This was shown in this research in both Chapters Five and Six, where a focus on the practices of governing showed the messy reality of both the internal governance of community groups as well as the governing of intermediary organisations.

Based on these insights emerging from my findings, it has been interesting to dive deeper into some of the literature on research methodologies with the benefit of hindsight. I feel particularly drawn to Layder (1998)’s argument that the social world must be understood as ontologically multidimensional, constituted by interrelated domains, and requiring an epistemological pluralism to be understood (p.87). Nonetheless, as I explained in the previous paragraph, I have come to realise that the methodology applied here has close connections with critical realism, by emphasising the grounded focus of the empirical world and active agents in it (McKee 2009). This does not mean that realism must adopt the same definition of research as positivism: a realist conception of social science would not assume that we can ‘know’ the world ‘out there’ independently of the ways in which we describe it (May 2011).

There are thus epistemological considerations that have emerged from my research as well. How have I, as a researcher, constructed an understanding of democratic governance? In Chapters Five and Six I have largely presented the accounts of my participants as offering a ‘true’ insight into a particular situations and processes. For example, in Chapter Five, I discuss the inclusiveness of community energy groups. What I do not, however, discuss in detail is how these participants’ accounts can themselves be considered as socially constructed. Although there was some evidence for this – most notably in the different ways male and female group members perceived the issue of inclusivity – this has not been part of the story presented here. I consider this to be the result of at least two factors. One, the quantitative phase of the research guided the second phase. Without it being explicitly part of my reasoning at the

time, this perhaps guided me more towards a (critical) realist worldview, inclined towards looking to study further processes and practices rather than discourses. Secondly, in hindsight, the broad set up of this research also did not always allow for sufficiently deep engagement with participants to understand *why* they saw the world a certain way. Instead, I was more focused on *how* they saw the world.

It is a comfort to know that I am not alone in seeking to bridge epistemological and ontological positions. As May (2011) explains, there have been a number of researchers who have sought to bridge across different ontologies and epistemologies, for example arguing for an 'interactive universalism' (Benhabib 1992) or a return to 'middle range' theory (Maynard 1998). The latter, which Maynard (1998) has borrowed from American sociologist Robert Merton, sees it lying between grand theory (remote from real life) and detailed descriptions of particulars that are not generalisable. Such way of theorising has been described by Mouzalis (1991, p.5) as a form of 'concept-building, a type of intellectual craftsmanship rather than any specific theoretical position on the nature of the social and the way of knowing it.' Such an approach can help identify generalisations, without claiming there are universalisations, by identifying general properties and highlight similarities and difference, but also through qualifying that such patterns may change (Maynard 1998). This is also what attracted me to the construction of a typology, not to offer a definite account of reality, but by developing a partial account, grounded in my analysis, which can be used to trace geographical or historical variations. As explained in Chapter Four, while its appreciation for diversity has been criticised for seeming overly relativistic or nihilistic, proponents of critical pluralism have argued that openness and tolerance does not mean different approaches should not be compared or evaluated (Edmunds and Wollenberg 2001, Brown and Dillard 2013), but that this should be based on a recognition of the situated knowledges from which these approaches emerged (Guy and Moore 2007; see also Haraway 1988) Recognising the partiality and situated nature of knowledges can then

serve as a starting point through which we can both understand and challenge dominant ways of thinking (May 2011).

Young (1999) has argued that this desire to understand the specific circumstances can then form the basis of a normative reflection. In order to reflect from within a particular social context, through social and political description and explanation, normative theorising can then occur (Young 1999). In this way, Young (1999, p.5) argues, critical theory is different from positivist social theory: it is not simply about describing what is, but about evaluating 'the given in normative terms'.

My research has been guided by a desire to evaluate claims that 'community' or 'local' equals 'democratic' and 'just', to ask questions about 'what occurs in a society and who benefits' which may be deemed to fall within the sphere of critical theory (Young 1990, p.5). On the other hand, I also struggle to see myself in Young's (1990) view of the critical researcher as emancipatory or with a clear view of the normative ideals that can be used to criticise a society or offer an alternative vision. As a critical researcher it is insufficient to simply say I wish my research to contribute to social change, but must ask what change, for whom, and how? (Also see May 2011, p.19). This thus raises some important questions about the role of the researcher. I will discuss some of the challenges I experienced in my role as researcher in more detail in the following section.

7.2.2.3 Ethics and positionality

As a researcher, I found it difficult at times to decide how to position myself into the broader research process. I wanted to make sure I was conducting 'good' research, and was not overly influenced by my relations with my research participants. Simultaneously, as May (2011) argues, such a view can disguise the myriad of ways in which a researcher is affected by the context of their research, the people who are part of it, and the productive nature of the research activity itself.

As I described in Chapter Three, previous work experience proved to be very helpful when contacting research participants from intermediary organisations. Prior to commencing my PhD research I had worked at Changeworks (one of the organisations that makes up the Local Energy Scotland consortium), during the second year of my PhD I worked with several intermediaries while on a placement at the Scottish Government, and throughout my PhD I also worked on several projects for ClimateXChange. These experiences were very helpful for helping me understand the ‘real world’ challenges and constraints within which people operate.

They were also helpful for developing a network of contacts. I had anticipated that it would be difficult to recruit research participants from intermediary organisations, but the contacts I had gained through my previous work were very willing to help. This in turn helped to recruit further participants through the snowballing method.

What I had not fully anticipated, however, were the ethical implications of doing research with people I already knew, and with whom I wanted to maintain a good relationship. I had, perhaps naively, anticipated that following the University’s ethics procedures and thinking about issues such as anonymity and data protection prior to conducting my fieldwork would help guide me through any ethical complexities. As Homan (1991) notes, however, the adherence to a code of ethics does not remove the moral responsibility that researchers have when conducting their research. In the case of this research, some research participants expressed quite critical views of some of the intermediaries involved in this research. These points were interesting and relevant, providing insights in the work of intermediaries that I had not come across much in the literature. At the same time, however, I also wanted to not be too critical of any individuals or organisations.

There was a moral dimension to this: the situations described by interviewees were often complex and multi-layered. At other times, the situations described by interviewees seemed clear-cut, but my previous work experience in the

sector made me question whether the situation might be more complex than what was described to me. As Blackstock *et al.* (2015) also note, the awareness of this complexity can make it feel short-sighted and unfair to critique individuals or organisations who, I sometimes felt, were simply trying to do the best they could within a, sometimes challenging, work environment.

There is also the factor of self-interest here. Building and maintaining relationships of trust can give greater access to data and enrich the analysis (Breitbart 2006, Blackstock *et al.* 2015). While there are growing demands for policy-relevant research, it is thus important for the researcher to acknowledge that such research offers the potential to pursue substantive and normative concerns and potentially to ‘make a difference’, it can also make it challenging to maintain one’s critical integrity (Woods and Gardner 2011). Coming towards the end of my PhD, with the question of ‘what next?’ looming over me, I was also concerned about how my findings may be perceived by those I may wish to work with in the future. Maintaining relationships of trust did not only include research participants who I may want to engage in the future, but also previous, and potential future, employers.

I have tried to address these moral and practical conundrums in several ways. First, this has been addressed by focusing on matters and experiences expressed by multiple participants. As I state in Section 5.8, I had initially wanted to examine the role of intermediaries in rescaling democratic governance, as I had heard from a research participant that they had experienced a lack of vertical accountability (i.e. accountability between different levels of governance) in the sector. Nonetheless, while conducting my fieldwork it was difficult to learn more about this, as few participants were willing to speaking openly about this. As a result, I decided not to include this information, as not only did the evidence not seem very strong, I also considered it to be potentially damaging to some of the people involved (and thus also potentially damaging to my relationship with those people). Instead, I focused on experiences and matters that were reported by multiple participants.

The second way in which I tried to manage my position as a researcher was through not trying to attribute blame or assign actions solely to individuals, but instead to explain the murky and complex sets of relations that may explain certain practices, such as community leaders withholding information (section 5.6.2). The third way in which I have sought to manage my positionality is by emphasising in my work that, any views expressed are those of the participants, while also trying to take ownership of, and responsibility for, the analysis I have conducted based on these views. The final way in which I have addressed these concerns is by enabling research participants to review the direct quotes I wanted to use and preceding/subsequent paragraphs, prior to publication. While this helped to maintain my critical independence in conducting the analysis, it also ensured participants that their words were not used out of context. Combined, I therefore hope, that this combination of approaches has helped me navigate and negotiate the messy reality of conducting research.

To summarise, this section has discussed some of the methodological implications of my research. I have reflected on the strengths, limitations and challenges of my chosen methodological approach, both with regards to the specific topic of this thesis (i.e. the methodological dimensions of conceptualising democracy), and more broadly (i.e. my positionality as a researcher).

7.2.3 Policy recommendations

In light of the findings presented in thesis, this section reflects on how policies relevant to community energy could be reframed to better serve local and national objectives. 'Community energy' is employed as one means to meet renewable energy and carbon reduction targets, and to contribute to a range of social benefits, including improved community capacity, empowerment, and resilience. As such, strong, empowered communities are not only a policy means, but also a policy end (Creamer 2015b). Nonetheless, as my findings show, the ability of community energy groups at meeting both social and energy goals is influenced significantly by the ways in which community energy

initiatives are conceived and supported by policy-makers. Of particular importance is the support available for assisting community groups in establishing governance procedures, and the ways in which funding for community energy is currently shaped.

7.2.3.1 Supporting (democratic) community governance

The conflation of ‘community’ with ‘democratic’ has important consequences for community governance. I showed in Section 5.4 that there appears to be a belief among some in the Scottish Government that geographic community organisations are inherently more democratic and representative than communities-of-interest. Nonetheless, I demonstrated in that same chapter that place-based communities also struggle with the demands of democratic governance. As a result, groups can be exclusionary, or at least struggle to follow the forms of best practice that they would often like to adhere to.

It may thus be tempting to suggest that groups should be required to adhere to stricter rules to combat this possible democratic deficit. It is questionable, however, that this would be an appropriate solution. This is not least because there are already requirements in place regarding the legal and institutional structures, and some of the processes to be followed, for community groups who use government funding to develop projects. Furthermore, as Chapter Five showed, arguably, the strength of the sector lies in its adaptability and ability to shape governance processes based on local needs and priorities. The implementation of stricter rules for community groups could be seen as a *de facto* transfer of power away from community groups to those setting the rules.

Rather, I would suggest there is a key role to be played by intermediary organisations who are not also funding agencies. When a community group is supported by outside funding, there is an inevitable imbalance of power between the community group and the funder. There is thus a risk that communities are concerned to ‘speak up’ about difficulties they encounter due to the potential impact this may have on their current or future funding. Both communities and intermediaries spoke of the need for the relation between

community groups and intermediaries to be built on mutual trust and interpersonal relations, rather than procedures and forms, to enable intermediaries to act as a 'critical friend' for community groups.

It is probable, however, that the power imbalance between communities and intermediaries inhibits such a relationship from developing. Evidence from community partnerships has shown that the funding-led nature of many such partnerships, can be a barrier to the creation of trust between different parties (Taylor 2007). Interview data from this research provided similar insights, indicating that there can be tensions between acting as a funder and being seen as a point of contact for communities when they are experiencing difficulties.

As I showed in Chapter Six, as some community energy groups begin to generate a substantial income, they may start to perform the role of intermediaries within their local area. At the same time, these groups are also expected to act as community anchor organisations with multi-purpose functions, including supporting smaller organisations (Scottish Community Alliance 2017). There is a risk, however, that if these organisations act as funders, this creates or consolidates power imbalances within the community, restricting the organisation's ability to act as critical friend to smaller organisations. This research only included a very small number of groups whose income is currently substantial enough that they distribute (part of) this among other local organisations, and therefore it is not possible to say with certainty how they will perform their dual role as funder and community anchor. Nonetheless, as more groups are beginning to generate an income, it is important that the potential consequences for local power balances are understood. As income-generating community energy organisations will potentially be performing this dual role of 'funder' and 'anchor', it is essential that sufficient support and guidance is available for them to ensure that (1) they are able to fulfil these dual roles and (2) to ensure that their empowered status within a community does not create imbalances within that community.

In summary, it is thus important that community organisations can access assistance to implement appropriate governance procedures without taking power away from such organisations. One way to do this is to ensure sufficient support is provided by organisations who do not also act as funders for the same organisations in order to ensure that relations between community groups and support organisations are based on trust rather than funding. This issue is also particularly relevant going forward, as community energy groups themselves begin to perform the dual role of funder and anchor for other community organisations.

7.2.3.2 Long-term priorities and funding

In addition to the availability of advice for community groups to implement governance procedure, the second important issue is funding for community energy. Chapter Four showed that the changing nature of funding has played an important role in shaping the community energy sector. This is not confined to Scotland. For example, the introduction of – as well as subsequent reductions in – the UK Feed-in Tariff has played an important role in shaping community energy in Scotland. What the typology in Chapter Four did not show are the many (often volunteer) hours that are lost due to significant changes in funding. One community energy group included in this study has been working on a community energy project for over ten years, and with the changes to the Feed-in Tariff, it is questionable whether their project can still be realised; they are forced to find an alternative to the income-generating form they originally envisaged. Other groups included in this study also report timescales of often five to ten years to develop a community energy project. The latest reduction in the Feed-in Tariff has made numerous projects that are currently under development unfeasible. This has resulted in a significant loss of time, effort, and also grant funding that these organisations have received to aid the early stages of a project's development. Especially in small, rural communities this lack of successful completion of a project can affect people's ability and willingness to undertake other community (energy or otherwise) projects in the

near future, exacerbating the recognised problem of 'volunteer burnout' (see Middlemiss and Parrish 2010, Callaghan and Williams 2014).

The funding regime within Scotland also plays an important role. I showed in Chapter Six that the short-term and fleeting nature of funding means that intermediaries are also chasing ever-changing opportunities, with the result that they may feel a need to 'push' communities to achieve the results that Government seeks in order to guarantee funding for both the community group and the intermediary itself.

Thus, the ongoing reliance of intermediaries and community groups on Government funding, means that it is questionable to what extent power is actually devolved. Furthermore, as Chapter Six showed, the short-term, and often competitive nature of funding, may inhibit a stronger community energy sector due to the loss of knowledge and skills in intermediaries when they lose programme delivery contracts, and the emergence of competitive relations between intermediaries, which affects the quality of support offered to community groups. For community energy projects to be able to shift the balance of power from the centre to the local it is thus important that long-term funding priorities, which favour collaboration over competition, are established.

To summarise, I have identified two key areas in which support for community energy organisations can be improved, to ensure that community energy projects can better serve local and national objectives. First, it is important that support is available for communities to establish governance procedures that best serve their needs and those of the community they represent.

Intermediaries who do not also act as funders may be better placed to deliver such support. Secondly, it is important that long-term funding priorities are established which favour collaboration over competition to ensure people's time, knowledge and skills are put to the best possible use.

7.2.4 Limitations of study

PhD researchers, like any researcher, are often warned not to try do too much, and to ensure their research focus is sufficiently narrow. I sometimes feel I have fallen foul of this rule. This research employed different methods, and even the qualitative component, usually used for conducting more in-depth research, included interviews with 15 community groups and 11 intermediary organisations. As such, it is fair to say, the setup of this research was of a broad nature. Reflecting on this, I see both strengths and limitations in this approach. I believe the strengths of this broad approach result from the relative novelty of the energy democracy concept, and my interest in pluralism and diversity. The novelty of the energy democracy concept ensured that there was little evidence on the democratic nature of energy governance (see also Chilvers and Longhurst 2016). As a result, I was interested in speaking to a larger number of stakeholders to identify common themes and concerns, while recognising that democratic governance is a complex issue, which I felt required the use of qualitative research methods to understand. I envisaged that this could provide an initial evidence base, as well as generating new research questions, on which further in-depth research could build. Secondly, there was my interest in critical pluralism as a research approach. I wanted to foreground the issue of diversity in my research, and as a result, I considered engaging with a larger number of groups, representing a diverse range of socio-technical configurations as a means to do so.

Reflecting on this approach, I believe while it has helped me achieve the objectives set out above, it has also had its limitations. Conducting interviews with ‘community representatives’ raised the question how representative their views are of the wider community, and whether there even is the possibility of a ‘representative view’. While this research did not adopt an explicit social constructivist epistemology, I do believe that interview accounts can only ever provide a partial view of reality. I have sought to address this limitation through examining three cases in more depth to obtain a more nuanced understanding of the different experiences that exist within a single community.

Another limitation of this study is its partial engagement with the issue of materiality. While the recognition of the diversity of socio-technical arrangements within the community energy sector was a driver of this research, this research has only engaged with the specific materiality of energy (compared with other matters), and the ways in which people engage with this, in a limited way. In Chapter Two I note that the concept of 'energy democracy' enables democratic theories to go beyond a focus on discursive arrangements, to also focus on other forms of democratic practice. In Chapter Five I have nonetheless focused on discursive arrangement around issues of energy rather than on other interactions with energy, such as practices of energy use. As I will explain in the next section, this could thus be a key area for further research.

7.2.5 Further research

As I began to discuss above, a greater foregrounding of the materiality of energy in social science energy research would be very valuable. In a number of oft-cited papers (D'Agostino *et al.* 2011, Sovacool 2014a, 2014b, Sovacool *et al.* 2015) Benjamin Sovacool has lamented the lack of social science energy research, setting out what social scientists can bring to the study of energy. In my opinion, however, Sovacool, fails to ask a second question: what can energy researchers bring to the social sciences (and humanities)? As, for example, Marres and Lezaun (2011), Marres (2012) and Devine-Wright (2007) have shown, an engagement with energy issues can bring new insights to questions of democracy and citizenship, traditionally the domain of philosophy and political science. My research, has perhaps more closely followed what Sovacool describes, a greater engagement of social sciences with energy issues, although I did seek to bring the specificity of energy to the fore in Chapter Two and the Discussion in Chapter Five. Nonetheless, I think the materiality of energy can be foregrounded further, and a key area for further research is thus to turn Sovacool's question on its head.

Secondly, further theorisation of the question whether energy democracy delivers active citizens beyond the energy sphere could also offer interesting

insights. While this research has shown that community energy *can* enable a more active energy citizenship, there are important limitations to this. As I argued in Chapters Two and Five, active participation can be limited to those with sufficient resources (time, money). Some participants in this research also highlighted the presence of internal forms of exclusion, which may inhibit some voices from being heard. There are thus important questions regarding whether community groups act as ‘schools of democracy’ or ‘pools of democracy’, i.e. means of engaging those already engaged (van der Meer and van Ingen 2009). It would thus be interesting to see further evidence whether community governance can contribute to an active citizenry beyond the energy sphere.

Finally, this research has been primarily focused on practices of democratic governance, rather than how participants construct or perceive ‘democracy’. It would be valuable, however, for further research to ask how democracy can not only be understood as a locally situated practice, but one that has (possibly) different locally situated meanings. Such an analysis could then form the basis from which further normative theorisation (as discussed in Section 7.1) can occur.

7.3 Conclusion

The novelty of this research can be attributed to the new knowledge and understanding that was gained through adopting an interdisciplinary, mixed methods approach to the study of community energy governance. The aim of this thesis was to better understand if and how community energy initiatives in Scotland are contributing to greater ‘energy democracy’. To achieve this aim four aspects of community energy were analysed: the roots of ‘energy democracy’ as an analytical concept; the make-up of the community energy sector; the democratic qualities of internal community governance; and the relations between community groups, intermediaries, and the state. While I have primarily situated my research within the context of state – civil society restructuring, the added lens of ‘democracy’ is important: as traditional political institutions are being complemented by new institutional modes, issues of

democratic control, accountability and legitimacy are becoming blurred (Klinke 2016).

The title of this thesis 'Devolution, democracy and the challenge of diversity: community energy governance in Scotland' reflects what I consider to be the three main findings of this research: (1) the emergence of hybrid spaces of governance as a result of the devolution of powers and responsibilities from the state to community groups, (2) the diversity of practices that have emerged within these spaces, and (3) the need to conceptualise democracy in a way that can capture the diversity and hybridity of these new forms of governance. The devolution of power and responsibilities from the state to community groups in Scotland formed the empirical context for my research. I showed that this devolution is partial, with the emerging spaces for community (energy) action best characterised as hybrid spaces, where 'bottom-up' and 'top-down' forces interact in a temporally and spatially uneven manner to create the diverse community energy landscape that exists today, reflected in the diverse set of governance practices within the community groups included in this research. This recognition of diversity has important consequences for how to consider the contribution community energy can make to achieving greater energy democracy. As I have discussed in section 7.1, it requires a conceptualisation of democracy that can accommodate diversity, and which recognises the situated knowledges from which different practices and approaches have emerged.

As the preceding chapters have also shown, some of the findings from this research are specific to Scotland, and to the energy sector. I have demonstrated that community energy in Scotland is part of a broader trend for asset-based community development – in which place-based communities play a central role – and that this has been influential in shaping the development of the sector. I have also shown that the integral role for intermediary actors identified and the associated hybridity of community energy spaces in Chapter Six is at least partly the result of the complex nature of energy projects. Finally, I have shown that the governance of community energy groups is especially interesting as a topic of studies due to the unique potential of (some of) these

projects to generate a substantial income, thus potentially transforming the way in which community energy organisations relate to other actors, both within and external to their communities.

It is important to note, however, that this research has also made several contributions that are of broader academic relevance. Firstly, it has made an important theoretical contribution by furthering understanding of ‘energy democracy’ as an analytical concept, which can help inform avenues for further research. Secondly, it has demonstrated that the question whether the devolution of powers or responsibilities to community groups is progressive or regressive (e.g. Featherstone *et al.* 2012, Catney *et al.* 2014) is not solely dependent on the rationales of governing, but dependent on the interactive, and spatially and temporally situated, practices that emerge through this process. Such empirical evidence, indicating *how* and *to* whom roles and power are devolved, is essential for understanding the democratic qualities of new socio-technical configurations (Smith and Stirling 2016). This relates to the third, methodological contribution this research has made, by demonstrating that adopting a mixed methods approach to study the interactions between ‘the general’ and ‘the particular’ can help further understanding on the different factors that shape spaces of intervention, both within community groups and in the community sector more generally. Finally, this research offers contributions towards closing the gap between research and practice by analysing the ways in which key policy tools, such as funding for community energy, impact the development of the sector.

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Appendix 1: Manuscript van Veelen and Haggett (2016)¹⁰

Uncommon ground: The role of different place attachments in explaining community renewable energy projects

Abstract

For rural communities, energy projects can provide a host of benefits, and yet also be a source of significant conflict. Place attachment has become an increasingly popular concept for understanding local responses to large scale renewable energy installations. However, there has been significantly less attention paid to how place attachment influences local responses to community-led developments. This study contributes to the body of research on place attachment by examining its role in shaping opinions on two locally initiated projects. Interviews were conducted with residents in two rural communities in the Scottish Highlands, where community organisations are developing renewable energy projects. The findings show that place attachment was an important motivator for the development of these projects, but that different types of place attachment also formed a key source of disagreement. Finally, the implications of these findings for rural communities engaging in community-led development initiatives will be discussed.

Keywords: community-led development, rural Scotland, place attachment, renewable energy, rural development

¹⁰ This manuscript is based on my MSc Thesis and has been published in *Sociologia Ruralis*. The original research has been conducted by me, while Dr. Haggett has helped me transform this research from a thesis into a paper. The full reference is: van Veelen, B., and Haggett, C. (2016) Uncommon ground: The role of different place attachments in explaining community renewable energy projects. *Sociologia Ruralis*. DOI: 10.1111/soru.12128.

Introduction

This paper focuses on the role of place attachment in shaping community-led energy projects in remote rural Scotland, and local responses to them. We demonstrate the value of this concept for considering endogenous development-related conflicts within rural communities, and for providing a nuanced understanding of the way in which responses are formed.

We chose Scotland because of the preponderance of remote rural communities, and the associated policy focus (Markantoni and Woolvin 2015, Skerratt and Hall, 2011). The Scottish Government has developed programmes to support community-driven development and engage communities in the transition towards low-carbon futures (Creamer 2015, Markantoni and Woolvin 2015). This includes the Scottish Government's Routemap for Renewable Energy, which sets a target on 500MW in community and local ownership by 2020; and the Scottish Government's Local Energy Challenge Fund (2014), with £20m available to support community energy projects. However, our analysis has a broader relevance beyond the Scottish context. Local movements promoting small-scale renewable energy have emerged across Europe (Harnmeijer *et al.* 2012, Kunze and Becker 2014), and issues around local acceptance based on competing visions of (rural) places are therefore also anticipated to be pertinent elsewhere.

One factor to account for policy makers' support for community renewable energy is the assumption that such projects will enjoy greater local acceptance (Warren and McFadyen 2010). While the definition of 'community' in community energy continues to be a source of discussion (Rudolph *et al.* 2015, Walker 2011), community energy projects are likely to have several key characteristics which are deemed to garner support. First, they are likely to be small: projects are often at the meso-level, smaller than technologies that are generally associated with a centralised energy system, but larger than a single household/building (Devine-Wright and Wiersma 2013, Walker and Cass 2007). Second, the community label indicates a set of social relations expected to

influence how these technologies are developed and the outcomes distributed. There is the presumption that participants play an active role in the development of the project and that benefits will be experienced collectively (Devine-Wright and Wiersma 2013, Walker and Devine-Wright 2008). Such benefits can be wide-ranging and include income generation, tackling fuel poverty, community regeneration, increased social cohesion, addressing inequalities, and skills development for local people (Capener 2014, Middlemiss and Parrish 2010, Murphy 2010, Walker 2007). Third, from these expectations of scale and local involvement, it is often presumed that community projects are more sensitive to local concerns, and therefore more acceptable to the communities in which they are situated (e.g. Bomberg and McEwen 2012, Hielscher 2011, Walker *et al.* 2007, 2010, Warren and McFadyen 2010).

This assumption has ensured that local acceptance of community projects has received only limited empirical attention (see Otto and Leibenath 2014 for one recent exception); or has meant a focus on the strength of support and opposition, rather than the contributing factors (e.g. Haggett *et al.* 2013, Warren and McFadyen 2010). Here, we move beyond the assumption that such projects will be well-received and present a novel focus on the contexts of rural community energy schemes. We use the lens of 'place attachment' to do so. Research focused on large scale renewable energy projects, has found that place, and related concepts of attachment and identity, plays an important role in forming opinions of energy developments (Bell *et al.* 2013, Devine-Wright 2009, van der Horst 2007, Vorkinn and Riese 2001). Yet, little is known regarding community projects and the impact of 'place' on their acceptance. By considering the complex role that place plays, a more complete understanding of community responses can emerge (Manzo and Perkins 2006).

This matters because of the location of community energy projects. Although found across Scotland, many are located in remote rural areas renowned for their natural beauty and unspoiled character. These are also often places where communities are "fragile" or "in decline" (Murphy 2010, p. 10) and in need of an economic boost (Mackenzie 2012). Furthermore, the rise of community energy

initiatives has coincided with land reforms aimed to redress the historic inequalities of land ownership, by promoting a collectivist, place-based community development model (Shucksmith, 2010). These coinciding movements are both argued to help write people 'into the land', challenging dominant discourses of who and what rural land is for (Mackenzie 2006a, 2006b, Shucksmith 2010). In this context, we explore two rural community energy projects with different landownership arrangements, aiming to further a sociological understanding of how different perceptions of place shape rural visions which inform both the motivations for, and responses to, such projects.

Place and place attachment

There has been a range of sociological work examining communities, local responses, and energy projects (Aitken 2009, 2010, Haggett 2008, 2010, Woods 2003), and sociological work positing the value of a place based approach (for example, Gieryn's seminal paper in 2000) but little which has brought these two traditions together. In much sociology, place "remains invisible only because it is rarely framed in this way" (Gieryn 2000, p. 464). We aim to make place visible in this study, and explicitly demonstrate the value of incorporating 'place' when considering responses to rural energy projects. We therefore draw on concepts from across disciplines to explore the way in which place can be understood in the broader context of human-environment relations (Lin and Lockwood 2014a, 2014b) as well as contributing to an understanding of how those relations are perceived and constructed (Greider and Garkovich 1994, Hannigan 2006).

We follow Devine-Wright's (2009, p.427) lead in considering 'place' as both the physical aspect of a location, but also as the "variety of meanings associated with that location by individuals or groups". The community groups at the centre of this study define themselves in terms of geographical area, which overlap with historic parish boundaries. Although these 'places' are both administrative and geographically bounded areas, they are not static pre-given entities. Rather, their meanings are contingent and at times controversial,

produced through the practice of social relations both within and external to the location (Harvey 1996, Massey 2004, Mackenzie 2006b).

There are numerous strands of research concerning people-place relations, including those focused on sense of place (Convery *et al.* 2012, Shamai 1991, Tuan 1980); place identity (Proshansky *et al.* 1983); and place attachment (Devine-Wright and Howes 2010, Lewicka 2011), described as a distinct form of sense of place (Convery *et al.* 2012, Jorgensen and Stedman 2001) and a precursor to place identity (Hernández *et al.* 2007). The different disciplinary traditions from which these research strands have emerged has, however, contributed to a lack of consensus regarding the meaning, and interpretation of these concepts, as well as the precise relation between them (Convery *et al.* 2012, Hidalgo and Hernández 2001, Horlings 2015). What they have in common is a concern with the – generally positive – meaning assigned to a particular location (Vorkinn and Riese 2001).

In this paper we focus on place attachment, most simply defined as the bonding between “individuals and their meaningful environments” (Scannell and Gifford 2010, p.289). Early literature was often concerned with the role of (shared) social bonds, processes and connections that contribute to people’s attachment to their neighbourhood (Lewicka 2011, Scannell & Gifford 2010). There, the physical aspects of a place are merely a setting for social interactions. More recent research however, has tended to conceptualise place attachment as having two dimensions: the physical and the social (e.g. Devine-Wright and Clayton 2010, Gunderson and Watson 2007, Hidalgo and Hernández 2001, Vorkinn and Riese 2001). The physical dimension of place attachment can include both functional attachment – the direct reliance of people on a place’s physical attributes or resources to support specific goals or activities (Lin and Lockwood 2014a) – and emotional attachment: the socially constructed meanings given to landscape features, enabling aspects of a location to become part of an individual’s identity (Greider and Garkovich 1994, Hernández *et al.* 2007, Lewicka 2011, Proshansky *et al.* 1983).

This contrasts with the second dimension of place attachment, which refers to the presence of current social ties, as well as an emotional connection based on personal, historical or cultural connections to the area (Hidalgo and Hernández 2001, Lin and Lockwood 2014b, Raymond *et al.* 2010). This social attachment can be experienced at an individual level, but also as part of a collective community identity, based on a shared locality, history and sense of belonging (Heiskanen *et al.* 2010, Walker and Devine-Wright 2008).

Thus, research on place attachment has encompassed a variety of different contexts and disciplines. We suggest it can be adapted to explore issues relevant to community development projects: the attachments formed to places, the relevance of the social context, and how these issues influence perceptions of change. We focus in what follows on the effect of place attachment on the development of community energy projects.

Place and renewable energy

An interesting and emerging body of research has applied these ideas about place attachment to explain local responses to energy infrastructure (e.g. Devine-Wright and Howes 2010, Vorkinn and Riese 2001). Early research often focused on how material factors (such as type of technology and physical proximity) influence opinions of a particular development (Lee *et al.* 1989, Thayer and Freeman 1987, Wolsink 1989). More recent work has suggested a place-based perspective which moves beyond the prominence assigned to physical proximity on shaping opinions. Instead, this place-based perspective highlights the socially constructed, symbolic aspects of places – informed by previous and current human-environment interactions – and how development proposals ‘fit’ with these (Devine-Wright 2011, Devine-Wright and Howes 2010, Haggett *et al.* 2014, van der Horst 2007). The place-based perspective adopted by this body of research refers both to the specific sites where developments are proposed, but also to the transformation of wider landscapes through “the extension of industrial and extractive components of the energy system into places and communities that previously were unaffected” (Bridge *et al.* 2013, p.

335). The ongoing expansion of renewable energy into remote rural landscapes therefore requires a re-evaluation of not only the use and form of these landscapes, but also the cultural meanings and emotional attachments embedded in them (Bridge *et al.* 2013).

Research using a place-based approach has primarily focused on large scale, commercial energy projects. Local acceptance is therefore often framed as resistance to developments proposed by ‘outsiders’, deemed insensitive to local, place-based, attitudes and concerns (Dalby and Mackenzie 1997, Devine-Wright 2009, Haggett 2009, Murphy and Smith 2013, Scannell and Gifford 2010). Whilst this literature tends to consider these critical responses to development project as place-protective action, those drawing on relational notions of place have argued that these responses can also be seen as multi-scale and network-oriented strategies to redefine and reproduce ‘place’ (e.g. Escobar 2001, Massey 2004) in ways that avoid what Swyngedouw (2004, p.43) sees as the dangers of ‘militant particularism’. As such, these places can be framed not only in terms of resistance, but also as places of possibility (Mackenzie 2012, Massey 2004).

Community-led projects present an interesting and different dynamic for the study of responses to proposed developments and the role ‘place’ plays as these projects have arisen from within communities, rather than being ‘imposed’ upon them. Studies suggest that community-ownership of renewable energy creates higher level of local acceptance (Barry and Chapman 2009, Bell *et al.* 2005, Toke 2005), but how place might contribute to this higher level of acceptance is not well understood. In this paper, we therefore apply the ideas presented above to analyse responses to community-owned projects.

Different people, different attachments

As well as a greater empirical discussion of the role of place in acceptance of community-led projects being warranted, we suggest a more nuanced understanding of place attachment is also required. Others adopting a place-based approach to understand local acceptance have considered the importance

of distinct characteristics and associated meanings of different places (e.g. Batel and Devine-Wright 2015, Devine-Wright and Howes 2010). Attachment is not necessarily experienced in a uniform manner by residents of one place, however, and differences within places should not be neglected. One approach is to explore the personal characteristics that influence an individual's place attachment (Haggett *et al.* 2014, Lewicka 2011). This is especially relevant in the context of rural areas, where 'incomers' or second home owners are often juxtaposed with long-term residents regarding their values and attitudes towards rural landscapes (Pitkänen *et al.* 2014).

Previous research has often equated length of residence, through notions of 'insidedness' (Relph 1976) or 'rootedness' (Hay 1998), with increased levels of place attachment (Lewicka 2011, Stedman 2006). Through greater use of local areas, local residents are 'expected to develop attachment to the areas to a larger degree' (Vorkinn and Riese 2001, p.250). Hence, levels of 'insidedness' (Relph 1976) or 'rootedness' (Hay 1998) are often used to explain different degrees of place attachment. Additional research has equated 'insidedness' not with strength of attachment, but with different aspects of place attachment. For example, length of residency may affect the shape of social place attachment, with long-term residents being more concerned with the long-term future for their communities, whereas 'incomers' may be more focused on short-term desires and priorities (Bomberg and McEwen 2012 Walker *et al.* 2010). Others have suggested that 'incomers' may have inherently different environmental values and different perceptions of the land than long-standing residents (Hernández *et al.* 2007, Stockdale *et al.* 2000).

In the Scottish Highlands, these issues have particular resonance. Discussions around community energy revive long-standing debates surrounding land use in the Scottish Highlands. These debates invariably revolve around competing views of those 'outwith' and those 'within', where the environment becomes a "proxy battleground" for broader issues of demographic changes, social cohesion, economic inequalities and identity (McIntosh 2014, p. xxi, also Hunter 2014, Wood 2003). The expansion of renewable energy projects in these areas

provides a new dimension for this debate, as newer residents may be more sensitive towards new developments (Bomberg and McEwen 2012), and more concerned about their visual impact (Toke 2005). This discussion is not limited to large-scale energy developments. Some small-scale community-led developments have also been perceived as potentially at odds with the conservation of 'natural heritage' or 'wild land' (Mackenzie 2006a, 2012). This research explores the importance of how different perceptions of place influence individual opinions.

Methodology

Several frameworks (e.g. Devine-Wright 2009, Walker *et al.* 2011) have been developed for understanding public responses to renewable energy developments, the role 'place' plays in informing these responses, and their evolution throughout the development process. We drew on Walker *et al.*'s (2011) framework as it emphasises contextuality, such as the characteristics of local places, and pays attention to the actors involved in promoting developments as well as the wider public. Whilst we limited the contextual variables to focus primarily on the role of place, this contextual factor is particularly pertinent to explore in connection to community projects, as both groups of actors ('developers' and 'public') are situated in the same places, ensuring that both the proposals for development and the responses to it are informed by a particular spatial and cultural context. The community-led nature of our projects therefore required the incorporation of an additional analytical dimension; how place attachment is mobilised to *initiate* renewable energy developments, rather than a sole focus on the role it plays in informing *responses to* these developments.

Different methods can be used to understand place-related meanings (Lin and Lockwood 2014b). Whilst a longitudinal approach can reveal the evolution of responses to place changes over time, the majority of studies to date have focused on one particular aspect of understanding these responses (Devine-Wright 2009). Our chosen methods complement the, often quantitative,

research in this field to date (e.g. Scannell and Gifford 2010, Vorkinn and Riese 2001). Based on the assumption that physical places obtain their meanings through a variety of ways, such as through individual and group memories, and symbols associated with a place (Lewicka 2011), we adopt a qualitative approach to highlight the subjective ways in which people form relationships to an area (Gunderson and Watson 2007) and the role this plays in both initiating community-led developments and in interpreting and evaluating proposed changes to places.

This study is based on a series of semi-structured interviews across two case studies, allowing for flexibility whilst also providing a structure that enables cross-case study comparability (Bryman 2012). Participants were selected using a snowball sampling strategy. A total of nineteen interviews were conducted during summer 2013: seven with active members of the community organisations developing the energy projects, eight with local residents not actively involved, and four with key stakeholders including consultants and agency workers. All names have been removed to ensure participants' anonymity.

Whilst aware of the limitations of a small-scale qualitative study, we believe this approach is valuable as interview participants often share information that extends beyond what is captured by quantitative research (Brandenburg and Carroll 1995). We suggest, accordingly, that this qualitative inductive approach generates illuminating data based on participants' expression of place attachment through their own words, allowing their subjective, lived-experiences to be better understood (Davenport and Anderson 2005). In reporting our findings we have chosen to make extensive use of participants' own words and provide descriptive contextual details, enabling the reader to assess the applicability of our findings to other contexts (Creswell and Miller 2000).

An initial range of topics were used in the interviews, with additional questions and prompts chosen depending on the respondent. As our emphasis is on

respondents' meanings and interpretations of issues and events, there was significant space for interviewees to pursue topics of particular interest to them (Blaikie 2000). Analysis of the interviews started with open coding, through which the data was broken down into eight categories and nineteen sub-categories. Following this, relationships were established between categories and the data was put back together thematically, with key themes identified for further analysis (Bryman 2012, Straus and Corbin 1990).

Case studies

Two community groups in neighbouring areas in the Scottish Highlands were identified as case studies. This region was selected because of the significant institutional context provided by Scottish Government policy and targets, and previous research suggesting that the use of shared symbolic resources, such as place attachment, by community groups in the Highlands can be particularly successful in garnering support for community-led energy projects (Bomberg and McEwen 2012).

Both case studies are located in the northwestern part of the Scottish Highlands. Case study 1 is a community organisation that represents an area with approximately 300 residents spread out over five settlements. Case study 2 is a community organisation in the geographical area directly to the north of case study 1. Its main town has approximately 600 citizens, close to half the area's total population. Both areas are located more than 70 miles away from the nearest city, and are classified by the Scottish Government as 'remote rural' (Scottish Neighbourhood Statistics n.d., a,b,c). They are highly valued for their landscape and natural environment: both are part of a designated National Scenic Area and are home to a number of sites with environmental designations (SNH 2011, 2014a). Additionally, the location of case study 2 is designated as 'wild land' by Scottish Natural Heritage (SNH 2014b). These areas are also home to small communities with a strong sense of identity (MacPhail 2002, Scotland Office 2013). Therefore the effects of both physical and social dimensions of

place attachment in shaping people's opinions on the proposed developments are valuable to study.

One relevant key difference between the two communities is that of landownership. Landownership arrangements are key to the development of community energy – “who owns the land can work the wind” (Mackenzie 2006b, p.386) – and also indirectly through influencing people's perceptions of place (Hunter 2012, Murphy 2010). The areas represented by the two community groups have different landownership arrangements. The community organisation in case study 2 owns the land on which they propose to develop a hydro project. In case study 1, the land on which the energy projects are to be built is owned by a national conservation charity. We explore the impacts of these different arrangements in this study.

Project description

Both case studies focus on projects developed by the community, for the community; the communities are taking the lead in developing these projects, and the financial returns are to be used to fund further community projects.

Case study 1 are developing a 100% community-owned 900kW wind turbine and a joint 435kW hydro project (together with the landowning charitable body), in which the community group will have a 50% share. Case study 2 had previously proposed a three-turbine wind project, but due to vocal local objections the community group changed this to a 100% community-owned 2MW hydro scheme.

At the time of research the projects were in the pre-planning stage. Previous research has found that the stage of the development affects public opinion, with support at its lowest when a project has been proposed, but not yet built (Devine-Wright 2005, van der Horst 2007, Warren and McFadyen 2010, Wolsink 2007). This temporary dip in support has been attributed to people who are generally weakly pro-renewables but who change their mind in response to project-specific issues, such as proposed technology, or concerns

with the development process (van de Horst, 2007). This is followed by a return to more positive attitudes once a project is operational. It is therefore anticipated that the opinions expressed by our interviewees may be more critical than if the projects had been at other stages in the development process.

Findings

Our analysis shows that place attachment was important for informing opinions on community energy projects in two ways. Firstly, it can be mobilised as a driver to start a project. Secondly, and conversely, it can also form a source of protest against community energy projects. We consider both of these roles of place attachment below.

Place attachment as impetus to develop

Our data indicates that place attachment not only informs responses to community-led energy developments, but also plays an important role in providing the *impetus* for these developments. As in other parts of rural Scotland (Creamer 2015), these communities have experienced significant social changes which have brought a number of challenges to residents' ways of life. Interviewees in both case studies considered their communities to be under threat, due to fewer employment opportunities, high cost of living, and the closure of local businesses (threats to functional attachment) and associated changes in demographics (threats to social attachment). This is significant because the preservation of these attachments is what mobilised some residents to take action:

"I suppose I feel a big stake in it all... I don't want the school to close, I don't want to see the shops go. [...] I don't want to be living here all on my own." (Community representative, case study 1)

These threats motivated one community group to run a visioning exercise: where do we see ourselves, as a community, in 5/10/20 years? This mix of threats to existing place attachment and the development of alternative place-

based visions for the future led the group to consider its options. Supported by stories from other communities who had managed to ‘turn the tide’ as a result of having a regular income stream, the group began to pursue the possibility of setting up a community energy scheme.

As a result of a similar process community group 2 had initially purchased part of the local estate – to create new opportunities to benefit the local population. However, this also created new challenges, specifically the income needed to run the estate:

*“You can’t eat landscape. You can’t sell it to people. [...] I don’t know how you can make the ground pay except by exploiting it.”
(Resident, case study 2)*

As is evident from the large number of community-owned estates who are in the process or have developed renewable energy technologies, this is a key way of ‘making the ground pay’. Although some interviewees emphasised the desire to develop renewables from an environmental-perspective, ultimately, the decision to embark on a renewable energy scheme was based on its potential to provide a long-term, relatively stable income stream, which in turn could be used to create new opportunities:

“The key driver [for exploiting renewable energy] is an economic one. It’s what it can do for the organisation.” (Community representative, case study 2)

For the community group in case study 2, landownership therefore provided an impetus for pursuing renewable energy. However, in our case studies, physical ownership was not as important as we had anticipated based on the literature (e.g. Mackenzie’s 2006b, 2008). Indeed, the land-owning organisation in case study 2 decided to abandon an initial proposal for a wind project after encountering significant local opposition. On the contrary, the organisation in case study 1 was encouraged by the conservation charity that owns the land to develop a second, joint ownership, project, which received significant support

from the local community. Hence, in these case studies having ownership of the land was not the decisive factor in determining the success of these projects.

Nonetheless, the community landownership movement seems to have had an important *indirect* impact on the development of these projects, through changing people's relation to places and creating a context where confidence and local people taking charge are encouraged (Mackenzie 2006b, Murphy 2010). As the director for one community group indicated:

"It is all part of something bigger isn't it? Community energy projects, communities' quests for landownership, Scottish independence... it all stems from a desire to take control of our own affairs." (Community representative, case study 1).

To summarise, different forms of place attachment were found to play a role in providing an impetus for the development of community renewable energy: perceived threats to both functional and social place attachment and emergent, alternative visions for the future were catalysts in both case studies. In case study 2, action had initially taken the form of a community land buy-out. Nonetheless, physical attachment to the land – in the form of landownership – was not sufficient in itself for the successful development of an energy project, and, as we will discuss, other factors were also important. However, landownership did inspire new forms of emotional place attachment in both case studies. These emerging place-based meanings – formed around the idea of local people taking charge – were found to be a key impetus for both communities to pursue renewable energy.

Place attachment as the motivator for opposition

Support for the community projects was not unanimous, however; and opponents would also often draw on place-based factors to explain their opposition. Place attachment determined perceptions of what 'fitted' in a landscape; and perceptions of this fit were often more important than 'actual' environmental impact.

For example, it became evident in both cases that wind energy was a significantly more controversial development proposal than hydro, based on the perceived differential impacts of these technologies on the landscape. The proposed hydro schemes were expected to have a greater impact on the land and local ecosystems, due to the need to construct pipes and cables all the way down the hills. Nonetheless, despite the potentially smaller impact of wind turbines on the *land* they were interpreted to have a potentially bigger impact on the feel of the wider *landscape*. Accordingly, the proposed wind turbines were far more controversial, with some of our participants opposing those whilst supporting the hydro projects. Concerns about wind turbines were primarily related to their visibility, and how they would ‘fit’ within the wider landscape:

“People come up here not to see a bloody turbine, but for the landscape.” (Resident, case study 1)

“I was one of the people that signed the petition saying ‘no wind’. It would have been a complete mar on the landscape. Although there will be some visual impact with the hydro, it’s absolutely minimal.” (Community representative, case study 2).

It became clear through our interviews that local opponents to wind energy felt a strong emotional attachment to a landscape, which they saw as ‘natural’ or ‘unchanged’. This emotional attachment shone through in the language that interviewees used in reference to the landscape. For example, the interviewee quoted above said he considered the landscape in the area to be the *“the scenery of the soul”* (Community representative, case study 2).

Thus, opposition to wind energy was to a large extent influenced by emotional attachment to the visual landscape, which opponents interpreted to be under threat. However, it would be shortsighted to dismiss this as NIMBYism. Instead it is clear from our interviews that the visual aspect of the landscape is associated with deeply rooted meanings attached to the place:

“When I am actually choosing my subject [for my paintings] within the landscape it tends to be very much about the

emptiness of it. It's my emotional response to that vastness [...] it tends to be about land that hasn't changed for millennia. That's what fascinates me." (Resident, case study 1)

From our interviews with opponents to the wind turbines it was clear that for them, the emptiness or naturalness of the landscape was a key source of the meaning they attached to the place. For them, the visual landscape is what made the place unique:

"There is a lot of stuff written about the mountains in the background, they're unique. Not just in Britain, but in the world." (Resident, case study 1)

"We came here because we were sick and tired of a landscape that was dominated by farming. [...] We thought we'd like to retire somewhere where there isn't quite the strain on the landscape." (Resident, case study 2)

Thus, the construction of the local 'place', in which the development should 'fit', was through strong emotions inspired by the particularities of the landscape, which stands in contrast with a wider and less specific landscape and scenery elsewhere. Nonetheless, for some the *social dimension* of place attachment mitigated concerns about the projects' impact on emotional attachments to the land:

"Inevitably, like all places where there's very little work, you put up with an oil rig or a salmon farm. We have all these things of which people think 'mweh', but if they weren't there, it would take something away from the community. The community, whilst you have this incredible relation with the landscape you also require people to be there, otherwise it falls flat very quickly. It's just a bit of give and take." (Resident, case study 1)

This returns to our point made in the previous section, that the potential impact of a community-owned energy on the preservation of social place attachment was an important source of support for these projects. What varied between participants was the importance assigned to either social or physical attachment, with those emphasising social attachment to the place more likely to support the project. Indeed, Hidalgo and Hernández (2001) found that when

attachment to a place is more concerned with the local community rather than the local environment, opinions about development projects are more likely to be based on the effects on the local population rather than the environmental impact; a finding we see reiterated here.

Acceptance of the projects was related to their perceived 'fit' within both the physical and social dimension of the place. The, perceived, dichotomy between landscape preservation and supporting local communities arose regularly in interviews, with most participants prioritising one over the other. This affected the symbolic meanings they attached to the proposed development. For some, a community-owned project was viewed through a lens of possibility, of social and economic recovery. For others, it was an industrial element, another reminder of unwanted human presence in an otherwise 'untouched' landscape. Even for some proponents, the development of a community energy scheme is not something that is necessarily *wanted*, but rather something that is *needed* for the community's sake: a means to achieve other ends. In the next section we develop this further and consider whether people's views of these developments are correlated to any specific personal characteristics.

The role of personal characteristics in explaining different attachments

Much is made in the (community) energy literature of the concept of the 'local' and 'local acceptance', but there is less attempt to question who or what is 'local' (Batel and Devine-Wright 2014). We found little evidence for any clear differences of opinion on the proposed developments based on people's location of residence or proximity to the development. Of those interviewed only one resident expressed an opinion of the turbine that appeared to be directly related to their place of residence, or more specifically, their physical distance from the turbine:

*"I don't want to have anything more to do with [the wind turbine]. It's not in my area anyway, it's at the other end."
(Resident, case study 1)*

We did find very different opinions between residents within a single location. When asked to explain this, interviewees hinted at the different meanings people attach to the area based on an individual's 'localness'. This follows previous research, which argued that rather than well-known social divisions like race or class, the most important division in the Scottish Highlands is that between 'locals' and 'incomers' (Creamer 2015, MacLeod and Payne 1994).

Both case study areas have a large number of holiday homes, and are also popular destinations for migration from other parts of Scotland or England (Scottish Neighbourhood Statistics n.d., a,b,c). Two different, but related, explanations emerged from our data that could explain why 'locals' may have a different opinion of energy developments than those who have moved into the area. The first explanation is that locals and incomers view the environment in ways that are different. It has been suggested in the literature that interpretation of the Highland landscape by 'locals' is likely to be influenced by their historical understanding of the place. For 'locals', Hunter (2014) argues, the emptiness of the Highlands is "...every bit as symbolic of the eradication of human communities as [it is] suggestive of wild nature" (Hunter 2014, p.37). These words were echoed by one of our interviewees:

"There is no wild land. These are places that used to have people and now just have ruins." (Resident, case study 1)

Additionally, to account for different views of the environment, it was suggested to us that 'locals' are more likely to have a functional, rather than emotional attachment to the landscape, adhering to the view that *"landscape is what you get your living from"* (Resident, case study 2). According to this view, locals may be more likely to support renewable energy development, as it is simply another way to make a living. These long-term residents thought that the place attachment drawn upon by (those described as) incomers was primarily emotional, based on a meaning they ascribed to the place when they first encountered it, often rooted in romantic notions of the environment as 'wild' and 'untouched'.

The second, related, possible explanation for different views on the proposed developments is that those who considered themselves to be local were more 'tuned in' to the socio-economic challenges the communities face. Here, respondents argued that the people who move into the area are often retirees, well-off and therefore described as having different concerns and priorities:

"...people who bought a house here, they fell in love with everything, they remember that magic moment in time and they always want it to be like that. If you only come here for a couple of weeks to your rural paradise, [...] it's neither here nor there whether there's a primary school or not." (Community representative, case study 1)

Although long-term residents are likely to value the scenery, we found that generally their primary source of place attachment is based on the social bonds they have, and which they perceive to be at risk. Therefore, they felt dependent on the development of a community energy project to aid the community's viability and help to preserve their social and functional attachment:

"I think, ultimately, that is the most important thing, what the community is going to get out of it. [...] With the amount of money that we are going to get from these projects we can actually make a difference here for the future." (Community representative, case study 1)

However, most interviewees also emphasised the complexity of the situation. Not all 'incomers' are against the proposed developments, and not all 'locals' are in favour, and a number of interviewees questioned the basis of the local/incomer division. When interviewees spoke of differences between 'locals' and 'incomers' and how this impacted upon their perception of new developments, this division was not necessarily based on how long someone had spent in the area. Rather, our data support Kohn's (2002) argument that 'localness' is not simply a product of time spent in the area, but that through participating in local activities and developing social ties one can 'become' local (also see Brunett 1998, Kohn 2002, MacLeod and Payne 1994). In

addition, views differed on who was considered to be local or an incomer, further problematising this division.

From our interviews it was therefore evident that there can be significant differences in place attachment within a single settlement. While this may in part be related to length of residency or role or involvement in the community, like our interviewees, we would caution against overstating this local/incomer division. The point is that site- or place-based characteristics alone do not determine attachment, and that an understanding of how individuals' characteristics may affect attachments within a single place, can be of value.

Discussion

The role of place in community energy: place as mobilisation tool

Previous research examining the role of place attachment in mobilising action and influencing opinions to energy projects has generally focused on large scale developments that can be deemed to be detrimental to one's sense of place (e.g. Devine-Wright 2011, Devine-Wright and Howes 2010, Haggett 2008, Rich *et al.* 1995, Woods 2003). In this body of literature, and the analytical frameworks it uses (e.g. Devine-Wright 2009) the role of place attachment has often been studied in relation to reactions to proposed developments. However, in our case studies it was evident that place, and attachments to it, played an important role, and at a much earlier stage: perceived detrimental changes to place and people's attachment to it, and the development of alternative visions for the future were important motivators for developing these projects in the first place. As they were developed by members of the community rather than 'outsiders', local action was not as much an act of resistance, as a way to build alternative futures (also see Massey 2004).

The construction of 'place' in the Highlands has often been dominated by views from outwith the area, whether as an area full of deer and salmon ready for the taking, or as an area of untouched wildness, there to be visually consumed (MacDonald 1998). Community landownership has been suggested as one

opportunity for people to reconstruct rural development set within locally prescribed narratives of place (e.g. McMorran *et al.* 2014).

In our case studies, ownership of the land did not play a decisive *direct* role in the development of community energy. Despite owning the land, the community group in case study 2 encountered substantial local resistance to their proposed wind development, based on perceived impact on the wildness of the landscape – as a result they cancelled their turbine proposal. Nonetheless, the broader land reform movement did play an important indirect role in fostering these community energy projects through shifting perceptions of ‘what is possible’ in both our case studies, landowning or not.

Many of our interviewees saw community ownership of land as the start of a trend to give communities greater control over their future (also see McMorran *et al.*, 2014). Thus, among our interviewees, whether from a landowning community or not, there was a strong narrative which considered the community landownership movement to have enhanced their feelings of self-belief and fostered alternative, locally-determined, place-based visions for the future.

For example, as a result of community of land and energy in other areas, community group 1 had run a visioning exercise to consider the priorities for their area and the steps needed to realise them. Here, the development of community energy was seen as an opportunity to counter threats to social and functional place attachment, such as rising house prices, the closure of schools and businesses, and changing demographics. In other words, it prioritised the possibility to (re)create a healthy and vibrant community over the preservation of a ‘wild’ landscape, to be visually consumed. As such, it was based on both a desire to protect existing, primarily social, place attachments as well as to create new place meanings, defined from within rather than outwith the Highlands.

Thus, whilst community group members in our case studies often drew on threats to the *local* place to explain their motivation for setting up a community-

owned energy project, they also felt their actions were part of 'something bigger'. This indicates that these groups activities' transcend locally-based, place-protective action to engage in what Escobar (2001, p. 161) calls 'coalition making with other place-based struggles'.

Whose place? One location, many meanings

In previous analyses of the role of place attachment in local acceptance of renewable energy, comparisons of local acceptance were often based on place-based characteristics, such as whether locations were known primarily for their industrial or natural heritage (e.g. Batel and Devine-Wright 2014, Devine-Wright and Howes 2010, Haggett 2008). This, however, can ignore the possibility that there are different factors that shape individuals' place attachment. In our research we found that individuals living in the same places formed different types of attachments to the area which influenced their opinion on energy developments in the area. Confirming previous research, we found that those who emphasised emotional attachment to the land, which was associated with notions of "wildness" or "unspoiled beauty", were more likely to oppose new developments, unlike those who emphasised the human-dimension of their environment or represented it as a 'community of neighbours' (Stedman 2002, p. 570-571, also see Hidalgo and Hernández 2001, Scannell and Gifford 2010, Vorkinn and Riese 2001).

In addition we analysed why people within a single location might have different forms of place attachment. Previous studies have sometimes argued that there is a structural difference in feelings towards the landscape between those who 'have roots' in an area and those who 'fell in love' with it (Jedrej and Nuttall 1996, Kohn 2002). Some interviewees would indeed argue that those who had moved into the area sometimes identified with it through what Kohn (2002, p.153) has called "an almost romantic love of the place as a wonderland", prioritising the preservation of this visual wonderland over what others considered to be pressing socio-economic problems.

Nonetheless, although some interviewees appeared to fit this locals/incomers division and the importance they assign to different aspects of place, overall the reality was more complex. Place attachment is not static, as evidenced by interviewees who had moved to the area for the landscape, but remained – many years later – because of the strong social attachment they developed over time. This social attachment was formed through participation in local activities and the development of social ties; part of the process of ‘becoming’ local (also see Kohn 2002).

Accordingly, many residents indicated that they had multiple attachments to the area. What varied was the importance assigned to different types of attachment. Here, our data also indicates that community ownership could make *some* difference in terms of local acceptance. For some, but certainly not all, interviewees community ownership increased the proposal’s acceptability, as its perceived potential to maintain or enhance the community through community-led development aligned with their social attachment to the place, overriding concerns regarding projects’ impact on their emotional attachment to the landscape.

Harvey (1996, p.182) argues that all proposals concerning the environment are also proposals for social change: they are never neutral (also: Yearley 2009). These case studies highlighted a dichotomy (which sometimes, but not always, overlapped with the incomers/local division) between those who considered the current socio-economic situation to be unproblematic, and those who thought that substantial change was needed. Accordingly, project opponents were sometimes characterised as being out of touch, and not being fully part of the place, irrespective of time spent in the area. The use of these dualisms in relation to proposed developments is not uncommon (Devine Wright 2009), but it shows that ‘reconstructing’ place, even when led by local people, is not without controversies.

Conclusion

Notions and narratives of community energy are filled with expectations that local action can and will be effective, that communities can function as the site of cooperative action as well as being the recipient of collective benefits (Haggett *et al.* 2013, Walker *et al.* 2010). However, we need to guard against simplistic ideas of 'what works' and assumptions that community projects can simply be replicated from place to place (Walker *et al.* 2010). What is possible in one place might not be in another, and understanding place attachments in context is therefore as important as projects' technical dimensions.

This paper has highlighted the role place attachment plays in the development of two community groups' energy projects. It shows that, when applied to community projects, place attachment not only influences acceptance of these projects, but also acts as an important motivator for establishing them. Furthermore, whilst community ownership may positively affect acceptance for some people, local acceptance of community-led projects should not be presumed and exploring ideas around place are one way to understand differentiated responses. Support for these projects was driven by threats to functional and social place attachment and a perceived opportunity to reconstruct rural development set within locally prescribed narratives of place. However, not everyone shared this common visioning of 'place'. Those who expressed a strong emotional attachment to a landscape that they saw as 'unspoiled' opposed what they considered to be the 'industrialisation' of the land through the development of renewable energy.

Finally, as is evident from our previous point, different people within the same community can form very different types of place attachment. Our research has focused on some of the different opinions expressed within settlements and, whilst this is a complex issue, found some evidence for the idea that 'incomers' and 'locals' hold different opinions based on different types, rather than necessarily different strengths, of place attachment.

These differences in place attachment and their effect on acceptance of community energy projects have thus far received little attention. Whereas previous research into the role of place attachment has largely focused on how it mobilises and unites communities against external threats, this research shows that mobilisation can also emphasise existing differences in perceptions of place within the local population. Some community group members viewed these projects as part of a wider process of communities taking action to create alternative futures through redefining and reconstructing rural places and development. However, 'constructing' place is never straightforward, and these changes also mean that old sources of place attachment may be disrupted, creating local tensions around preservation of the current distinctiveness of place (based on perceived uniqueness of the landscape) versus creating a new sense of place. While others have also considered competing visions of place in relation to proposed energy developments (e.g. Horlings and Kanemasu 2015), these issues have received less attention when concerning fully community-owned projects.

These findings are therefore relevant for the body of research on local acceptance of renewable energy, but also more broadly regarding the possibilities and challenges of community-led development projects in (re)defining place. Whilst such processes have previously been considered as multi-scale and network-oriented strategies to redefine and reproduce 'place' (e.g. Escobar 2001, Massey 2004), this research emphasises the tensions involved in this, and raises questions around whose visions for the future are deemed valid.

The qualitative approach adopted in this research enabled us to highlight the subjective and complex ways in which people form attachments to an area and interpret changes to these places. Further research on acceptance of community energy projects could take a longitudinal approach to understand how different stages of development affect acceptance of place change, whilst ethnographic approaches could help deepen understanding of the intra-community

negotiations around the process of (re)constructing place in light of community-led development proposals.

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Appendix 2: Overview of cases

Case	Interviewees	Social category
<u>Community groups</u>		
CG1	1 - 4	Community group employees & directors
	5 - 7	Local residents
CG2	8 - 12	Community group employees & directors
	13 - 18	Local residents
CG3	19 - 23	Community group directors
	24 - 25	Local residents
CG4	26	Community group director
CG5	27	Community group director
CG6	28 - 29	Community group employee & director
CG7	30	Community group employee
CG8	31	Community group director
CG9	32	Community group director
CG10	33	Community group employee
CG11	34	Community group director
CG12	35	Community group director
CG13	36	Community group employee
CG14	37 - 38	Community group director
CG15	39	Community group director
<u>Intermediary organisations</u>		
I01	40 - 42	Intermediary employees
I02	43 - 45	Intermediary employees
I03	46 - 47	Intermediary employees
I04	48	Intermediary employee
I05	49 - 50	Intermediary employee, intermediary director
I06	51 - 52	Intermediary employees
I07	53	Intermediary employee
I08	54	Intermediary employee
I09	55	Intermediary employee
I010	56	Intermediary employee
I011	57	Intermediary employee

Appendix 3: Example interview request email

Dear <name>,

I hope you are well. My name is Bregje van Veelen I am a researcher at the University of Edinburgh, currently undertaking a PhD on the topic of community energy. My research seeks to evaluate the impact of policies and support mechanisms for community energy in Scotland, and how these affect community energy's ability to contribute to broader community development aims.

To inform my research I would very much like to speak to you and/or other members of <community organisation name>. As a community landowner, <community organisation name> has taken an important step to support and encourage local community development. Based on the information on your website I know that the Trust has built a number of wind developments throughout the years in order to further this aim. Having developed a range of community energy projects, I believe the <community organisation name> could provide me with a unique insight into how the different projects have come about; the challenges, and lessons learned from them; and how they are contributing to broader community development.

I am hoping therefore hoping you might be willing to set up an interview at your convenience. Interviews will normally be conducted at the place of the interviewee's choosing. I am planning to be in <area> in April to conduct a number of interviews. If you are willing to participate, would there be a specific time in April that would be particularly suitable? I sincerely hope that you will consider participating in this project, or would be able to suggest colleagues who may be interested in participating.

I have attached a file which contains further information about the research project, but also what you can expect from the interview, including further details around issues such as data protection.

If you have any questions, please do not hesitate to email me on this address or phone me on the number provided below.

Thank you very much in advance for any help you may be able to provide.

Best wishes,

Bregje

Bregje van Veelen
Room G.22
Drummond Library
Drummond Street
Edinburgh
EH8 9XP

Tel: 0131 650 2204
Mobile: 07794611650
Email: B.van-veelen@sms.ed.ac.uk

Appendix 4: Project Information sheet



THE UNIVERSITY of EDINBURGH
School of Geosciences

Research Project Information Sheet

Research project title: The policies and practices of community energy in Scotland
Research investigator: Ms Bregje van Veelen, PhD student, University of Edinburgh

You are being invited to take part in a research study. Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Ask me if there is anything that is not clear or if you would like more information. Take your time to decide whether or not you wish to take part.

Thank you for reading this.

About the Project

The aim of this study is to improve our understanding of the nature and impacts of the community energy sector in Scotland. The composition of the community energy sector in Scotland is different compared to most other European countries, or even England and Wales. This project seeks to understand the underlying reasons for why the sector has developed so differently, and the implications of this.

An initial part of the study, a systematic review of approximately 350 Scottish community energy projects, has already been completed. In the second part of this study I am conducting interviews with members of different community groups, as well as others who are working in the community energy sector. These interviews will seek to improve understanding of the links between the motivations, trajectories and policy contexts of community energy organisations and their (social) impact in Scotland.

Why have I been chosen?

I would like to speak to you because **<insert specific reason for wanting to speak to that person>.**

What is involved in the study?

- If you agree to take part I would like to ask you a number of questions about your experience of developing a community energy project.
- The length of the interview fully depends on how much time you have available, I am grateful for any time you can spare. As a rough guide, most interviews last approximately an hour.
- I like to meet research participants in person, but if you prefer, we can speak over the phone or by email.
- I usually record interviews, unless you would prefer me not to. After the interview, I will type up a transcript, and send this to you. You will have the opportunity to check and edit your response.

- Both the recording and the transcript will be securely stored until the end of this study and won't be shared with anyone else. All personal data will be destroyed once it is no longer required to produce academic outputs.

Will my taking part in this study be kept confidential?

As far as possible your contribution will be kept confidential. Your name, or the organisation you work for, will not be identified in the study, unless you explicitly give me permission to do so.

You can withdraw your consent for the use of any, or part of the information you provided, at any stage.

What are the benefits for taking part in this study?

Participants are recruited on a voluntary basis and you will receive no payment for your participation. No monetary benefits are offered, although any costs (travel, sustenance) may be reimbursed subject to prior agreement.

The final results of the study will help to evaluate the current set of support mechanisms for community energy, and potentially help to inform future directions for support.

I aim to report the final results from this study during the summer of 2017. Once the thesis has been completed and approved, I will also produce an executive summary to be distributed to all research participants.

What are your rights as a participant?

Participation is completely voluntary and you can withdraw from the study at any time.

For more information

This research has been reviewed and approved by the Edinburgh University Research Ethics Board. If you have any further questions or concerns about this study, please contact:

Bregje van Veelen
Drummond Library
Drummond Street
Edinburgh
EH8 9XP
Tel: 0131 651 4402
Email: B.van-Veelen@sms.ed.ac.uk

You can also contact my primary supervisor:

Dr. Dan van der Horst
Drummond Library
Drummond Street
Edinburgh
EH8 9XP
Tel: 0131 651 4467
E-mail: Dan.vanderHorst@ed.ac.uk

Appendix 5: Interview consent form



THE UNIVERSITY *of* EDINBURGH
School of Geosciences

Interview Consent Form

Research project title: The policies and practices of community energy in Scotland

Research investigator: Ms Bregje van Veelen

Research Participants name:

Thank you for agreeing to be interviewed as part of the above research project. I don't anticipate that there are any risks associated with your participation, but you have the right to stop the interview or withdraw from the research at any time.

Ethical procedures for academic research undertaken from UK institutions require that interviewees explicitly agree to being interviewed and to how the information contained in their interview will be used. This consent form is necessary to ensure that you understand the purpose of your involvement and that you agree to the conditions of your participation. Would you therefore read the accompanying **information sheet** and then sign this form to certify that you approve the following:

- the interview will be recorded and a transcript will be produced
- you will be sent the transcript and given the opportunity to correct any factual errors
- access to the interview transcript will be limited to Bregje van Veelen and her two supervisors
- the actual recording will be destroyed once the research project is completed
- any variation of the conditions above will only occur with your further explicit approval

All or part of the content of your interview transcript may be used in (tick all that apply):

- ☐ Academic outputs including my thesis and associated academic papers
- ☐ Presentations at academic conferences
- ☐ News articles on my personal or university website

Regarding the use of interview transcript in the ways agreed to above, please initial next to the one statement that you agree with:

- ☐ I agree that both myself and the organisation I work for can be identified

- ☐ I wish that my contributions are anonymised so that I, and the organisation I work or volunteer for, cannot be identified.
- ☐ Other (please specify, e.g. I wish to remain anonymous but my organisation can be identified)

By signing this form I agree that;

1. I am voluntarily taking part in this project. I understand that I don't have to take part, and I can stop the interview at any time;
2. The transcribed interview or extracts from it may be used as described above;
3. I have read the Information sheet;
4. I don't expect to receive any benefit or payment for my participation;
5. I can request a copy of the transcript of my interview and may make edits I feel necessary to ensure the effectiveness of any agreement made about confidentiality;
6. I have been able to ask any questions I might have, and I understand that I am free to contact the researcher with any questions I may have in the future.

Printed Name

Participant Signature

Date

Researcher Signature

Date

Contact Information

This research has been reviewed and approved by the Edinburgh University Research Ethics Board. If you have any further questions or concerns about this study, please contact:

Bregje van Veelen
Drummond Library
Drummond Street
Edinburgh
EH8 9XP

Tel: +44 (0) 131 650 2204
Email: B.van-Veelen@sms.ed.ac.uk

You can also contact my primary supervisor:

Dr. Dan van der Horst
Drummond Library
Drummond Street
Edinburgh
EH8 9XP

Tel: 0131 651 4467
E-mail: Dan.vanderHorst@ed.ac.uk

What if I have concerns about this research?

If you are worried about this research, or if you are concerned about how it is being conducted, you can contact the Chair of the GeoScience Ethics Committee, University of Edinburgh, Drummond St, Edinburgh, EH8 9XP (or email at ethics@geos.ed.ac.uk)

Appendix 6: Sample interview schedule community groups

The following questions were used as a starting point. In most interviews additional questions were included to follow-up on initial answers and tease out some of the locally specific approaches that groups had taken.

Introduction/Background

1. Can you tell me a bit about why the organisation was established (drivers)?
 - a. Who were involved in its establishment?
2. I would also like to know a bit more about your involvement. Were you involved in the partnership from the start? If not, when did you become involved?
 - a. What was your motivation for becoming involved?
3. Why did the organisation develop the type(s) of renewable energy that it has?
 - a. (If a group has several projects): did the development of earlier projects affect the development of the later ones? How?
 - b. How do these projects fit with/address the wider aims of the community?

Internal community energy governance:

4. How was the decision made to develop a particular type of project?
 - a. Who was involved in the decision-making process?
 - b. How were decisions made, what processes was followed?
 - c. Looking back, would you do anything differently?
5. Although community energy projects are often developed to benefit the local population, from my conversations with other community groups it is clear that support for these projects is not always guaranteed.
 - a. How have you found the level of local interest in the project?
 - b. Did you experience any opposition? If so, how did you address that?
6. Benefits: the project has been up and running for xx years now, and has been providing an income for the community.
 - a. What has this money been spent on?
 - b. Who had identified these priorities?
 - c. What process had been in place to identify these?

- d. Do you feel, as a community, you are less dependent now on outside funding? Or do you set your aims higher and still need outside funding to complement the income from the wind turbine to realise these projects?

Interactions beyond the community

- 7. Many community energy projects are focused on the local benefits it can deliver, but some community energy groups do seem quite active in engaging with other groups and thinking beyond their local area.
 - a. Do you feel you have had much contact with other groups before/after the development of the turbine?
 - b. Intermediary organisations are often given as examples that try to bring different community groups together and represent their interests, at the same time they are of course also reliant on government funding to deliver particular outcomes. How well do you feel these organisations represent their members' interests?
 - c. How have changes in the support landscape affected your organisation?
 - d. We all like to see communities empowered, but do you think there is ever a risk that communities are asked to do too much? (Examples?)

Appendix 7: Community energy stakeholders: sources of advice, policy and finance for community energy projects in Scotland.

See next page.

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