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Social enterprise as a potential niche innovation breakout for low carbon transition

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ABSTRACT

While there is growing consensus that human behaviours need to change to a more sustainable paradigm, community driven approaches, such as social enterprise, have yet to be explored as serious instruments of sustainability transition. Social enterprises sit within the third sector of the economy, typically where market or governmental failures exist in the provision of social welfare, and have increasingly become a key driver of social progress. The autonomous nature of the social-economic model applied by such organisations can represent a viable means to reduce state social welfare dependence, and is a proven model for social change. The capability of social enterprises to create both social and economic value is considered a 'win-win'. Yet there are clear potentials for social enterprise models to be more extensively applied to address contemporary ecological challenges of neo-liberal market economies, moving towards 'win-win-win' outcomes across social, economic and ecological domains. This paper investigates the value of social enterprises as drivers of low-carbon transition at the community level, with an emphasis on the energy sector. Evidence from seven organisations in the UK is presented and a socio-technical transitions conceptual framework is applied to analyse these social enterprise operations as a form of social innovation.

1. Introduction

1.1. Social sustainability

> *"It is easy enough to see that we do want sustainability in some form or other, but the question is: in which form? What rival conceptions to sustainable development may be worth considering?"* (Sen, 2013, p9).

As described by Sen (2013), a fuller concept of sustainability has to aim at sustaining human freedoms, rather than only at our ability to fulfil felt needs. Sen (2013) redefines the Brundtland Report's definition of sustainable development as development that prompts the capabilities of present people without compromising capabilities of future generations. Sustainability transitions are not only processes of socio-technical change therefore, but also present opportunity for socio-political change towards more sustainable societies (Ahlborg, 2017; Avelino and Wittmayer, 2016). German and Schoneveld (2012) highlight societal impact and community involvement as key elements of social sustainability, for instance. Social sustainability is critically important from an energy perspective, specifically in terms of energy justice (Hiteva and Sovacool, 2017).

At present, global energy systems are undergoing radical change, from centralised fossil fuel based models to decentralised (European Commission, 2011) and decarbonised (Allen et al., 2015) systems. Decentralised Energy Systems (DES) are emerging comprised of large scale renewable energy technology (Adil and Ko, 2016). At the same time, inequality of access to safe and affordable energy is rising, as is energy poverty, even in affluent nations (Healy and Barry, 2017). In the context of such systemic change in local energy infrastructure, a comprehensive assessment of the sociotechnical co-evolution of energy systems – how technologies and social responses evolve together and how their co-evolution affects urban planning and energy policies, is required (Adil and Ko, 2016). Healy and Barry (2017) stress the need to consider whether, where and how policies aimed at decarbonizing the economy can address the range of injustices and impacts of such a socio-energy transition, for instance. Hiteva and Sovacool (2017) argue that social sustainability in energy terms should incorporate equitable distribution of costs and benefits, affordability, due process and greater participation in decision-making. These constitute key elements of an energy justice perspective. Sovacool et al., (2017 p677) define "energy justice" as a global energy system that fairly distributes both the benefits and

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burdens of energy services, and one that contributes to more representative and inclusive energy decision-making.

Healy and Barry (2017) advocate for a "just transition" highlighting, amongst other aspects, the need for supports for communities that have been marginalized or negatively impacted by low carbon energy transition processes. It would therefore seem that energy transition processes (including decentralisation) will involve potential for conflict of interest but may also present opportunities where the productive and creative abilities of communities can be enhanced (Ahlborg, 2017). However, one of the biggest challenges facing the just energy transitions agenda is translating the normative concept to an operational one that can be understood and implemented in policy and business (Hiteva and Sovacool, 2017). Hiteva and Sovacool (2017) argue that social innovation is a key means of embedding energy justice concepts in business models for energy provision. This paper investigates this idea, with a focus on social enterprises as a vehicle for low carbon transition in community energy provision.

1.2. Aims and objectives

This paper investigates the value of social enterprises as a driver of sustainability at the community level, with an emphasis on application in the energy sector. Evidence from seven social enterprise focused stakeholders in the UK is presented and a socio-technical transitions conceptual framework is applied to analyse these social enterprise operations as a form of social innovation. The paper critically evaluates the characteristics of social enterprises which suggest potential for wider socio-technical systemic transformation and appraises the potential for such organisational models to act as 'engines of socio-technical transformation'. Firstly, the academic literature regarding niche innovations, sustainability transitions and social enterprises is reviewed. Secondly, results from seven semi-structured interviews with social enterprises from the Liverpool City Region in the UK are applied to explore their role in the context of an emerging low-carbon energy system. A socio-technical transitions conceptual framework is applied here to analyse how social enterprise operations constitute a niche innovation. The potential for wider socio-technical systemic transformation together with the potential for such organisational models to act as 'engines of socio-technical transformation' is appraised. Barriers to the widespread diffusion of social enterprise models are identified, as well as operational and strategic challenges in actively delivering on the 'win-win-win' potential of these organisations for sustainability. The following three exploratory research questions are addressed:

1. What do 'social enterprises' do and how are they structured?
2. Can social enterprises survive without policy supports such as feed-in tariffs?
3. What does social sustainability mean in an energy business environment, and can social enterprises deliver this?

Thus the paper applies an exploratory and inductive model of research using social science methods to investigate social-enterprise organisations. Such an approach is being increasingly called for in the literature, for example by authors such as Devine-Wright et al. (2017) and the paper aligns with studies published by Ruggiero et al. (2018) and Becker et al. (2017). In adopting a social science approach, the authors are mindful of the argument of Sovacool et al., (2015, p95) that "realizing a future energy system that is low-carbon, safe, and reliable will require fuller and more meaningful collaboration between the physical and social sciences."

1.3. Niche innovation and sustainability transitions

The concept of 'transition' has become increasingly central to futures-oriented thinking (Feola and Nunes, 2014). Deeply embedded socio-ecological problems urgently require novel approaches with a long-term orientation. The transitions literature has stimulated debate to increasingly recognise this and the multi-dimensional shifts required for delivery of sustainable modes of production and consumption. For an overview of socio-technical transitions focused research, Lachman (2013) reviews the growing body of literature, providing criticism as well as detailing strengths and contributions from the various transitions related research approaches. In the Multi-Level Perspective (MLP) nested hierarchy, the theoretical framework applied by Geels and others, the niche level affords space for experimentation and new ideas to emerge (Geels and Schot, 2007). The MLP posits that transitions come about through interactions between processes at three levels: (a) niche-innovations afford space for new ideas to be tested and developed[1]; (b) changes at the landscape level create pressure on the regime; and (c) destabilisation of the regime creates windows of opportunity for niche innovations to emerge. The alignment of these processes enables the breakthrough of novelties in mainstream markets where they compete with the existing regime (Geels and Schot, 2007). Niches act as 'incubation rooms' or 'protected spaces' protecting novelties against pressures of the mainstream, including forces of market selection for instance (Schot, 1998; Kemp *et al.*, 1998). Radical innovations break out of the niche-level when ongoing processes at the levels of regime and landscape create a 'window of opportunity', which allow these niche innovations to go on to become integral to regimes (Geels and Schot, 2007).

There are significant challenges related to the diffusion of niche innovations, particularly related to the scale of niche innovations within a wider regime, making scale-up challenging and presenting difficulties with replication of conditions for success across wider regime environments (Charnock, 2007; Seyfang and Smith, 2007; Seyfang, 2010). Niche innovations are carried and developed by small networks of dedicated actors, often outsiders or fringe actors (Geels and Schot, 2007). While this assures that sustainable alternatives are considered and acted upon, gathering wider support can be challenging within the context of a regime change. Tensions and contradictions may occur with incumbent regimes as opening niche opportunities emerge and niches start to drive regime transformations (Geels and Schot, 2007; Seyfang and Smith, 2007).

The transitions literature has to date tended to emphasise the *technological* aspects of sociotechnical transitions, at the expense of *social* innovation, movements, and actors (Seyfang and Haxeltine, 2012). In discussing regimes, Smith et al. (2010) describe that a sociological sensibility extends the idea of the regime to embrace institutions (such as regulations and markets), heterogeneous networks (including devices and people), user relations, and social expectations including values and norms. It therefore follows that the social domain constitutes as important a dimension of the socio-technical regime, as the technical. The transition from one regime to another involves a fundamental reordering and realignment of both the social and technical components of systems (Bolton and Hannon, 2016). According to the Strategic Niche Management (SNM) literature, niche innovations have a high failure rate when they emerge (van Eijck and Romijn, 2008). Structural change at the regime level can come from the incubation of ideas and experiences at the niche level (Berry et al., 2013). Successful niches are 'incubation rooms' within which innovating firms are supported both by private resources and public funding. New technologies are protected against harsh selection competition and are provided with space to grow and mature through gradual experimentation and learning processes (Lopolito et al., 2011). Avelino et al. (2017) propose a co-evolutionary understanding for social innovation, a framing consistent with an MLP understanding of transformative change. Such social

[1] Niches of innovation offer opportunities to experiment with new practices, technologies and organisational models, with subsequent potential for wider social transformation, should these niche innovations be suitable for wider uptake and diffusion (Geels, 2002; Geels and Schot, 2007; Seyfang and Smith, 2007; Seyfang, 2010).

innovation can constitute the development of skills, knowledge and social capital, through interventions coming from multiple levels and focused on different aspects of energy generation, supply and use (i.e. finance and technical implementation) (Hiteva and Sovacool, 2017). In MLP terms, niche level 'protected space' may be one of values and culture rather than market pressures (Raven et al., 2010; Witkamp et al., 2011). Kivimaa and Kern (2016) argue that policy mixes are particularly important in the field of sustainability transitions. If social enterprise is to be considered within the niche context, then incubation space is likely to consist of several 'pillars' or elements, including key government policy supports. Indirect policy support is evident across the energy sector through incentives such as the Feed in Tariffs (FITs). These subsides can act as a buffer, providing a stability of incubation for niche innovation to develop.

Within this emerging body of investigation, there is a need for research which more exclusively and explicitly addresses organisational and community level responses to sustainability in a strategic and forward looking manner. While there is growing consensus that human behaviours need to change to a more sustainable paradigm, community driven approaches, such as social enterprise, have yet to be explored as serious instruments of sustainability transition.

1.4. Social enterprise and sustainability

'Social enterprise' is a collective term for a range of organisations that trade for a social purpose (Haugh, 2007). Cieslik (2016) describes social enterprises as organisations seeking market-based solutions to social problems. Social enterprises are neither typical charities nor typical businesses; rather they combine aspects of both (Ebrahim et al., 2014). Social enterprises target economic sustainability with a wider social mission, reinvesting profits generated to achieve multiple bottom lines (Cieslik, 2016). The primary revenue source is commercial, relying on market activity instead of donations or grants operate and to scale-up their operations (Ebrahim et al., 2014).

Social enterprises operate within the 'third sector' of the economy, typically where market or governmental failures exist in the provision of social welfare, and have increasingly become a key driver of social progress. In this context, the trend for communities to take greater responsibility for their own socioeconomic development has emerged alongside the withdrawal of services that have traditionally been provided by the public sector (Haugh, 2007). Debates on social enterprise, and more widely on the social economy, can be contextualised within the perceived need to imagine alternatives to neoliberal capitalism and associated negative social and environmental impacts (Daya, 2014). The autonomous nature of the social-economic model applied by such organisations can represent a viable means to reduce state social welfare dependence, and can act as a model for social change. The capability of social enterprises to create both social and economic value is considered a 'win-win'. However, there are clear potentials for social enterprise models to be more extensively applied to address contemporary ecological challenges of neo-liberal market economies, moving towards 'win-win-win' outcomes across social, economic and ecological domains; particularly as these organisations are not motivated by a relentless profit imperative. The unique business models of social enterprises deliver multiple advantages when targeting sustainability-related outcomes. Community focused social enterprises hold the potential to ground sustainability-related policy and action in a more visible and meaningful way; for instance, community approaches are grounded in the everyday practicalities of energy use and lifestyle choices more-so than 'top-down' measures (Ockwell et al., 2009).

Community-led social ventures therefore have the potential to deliver benefits over and above economic and financial outcomes as they are closely engaged with people with a shared interest in the creation and management of these ventures (Haugh, 2007). Participation and empowerment are often forwarded as legitimizing factors for social enterprise (Cieslik, 2016). Social enterprise has the potential to revitalize communities via meeting local needs, developing the capacity of a community to be independent and generating social capital between individuals and communities (Haugh, 2007). Social enterprises are visible to local individuals and those they are trying to influence typically through face-to-face contact between community members and representatives of social enterprises as this engenders more trust compared to branding and marketing initiatives associated with larger corporations. Consequently, community level approaches and social enterprises allow for greater interactions with local actors and sustainability actions can be tailored to the needs of the community. Importantly, for energy focused social enterprises, local people are involved in active dialogue on the future of the energy system for their community (Middlemiss and Parrish, 2010; Moloney et al., 2010), fostering agency, ownership and engagement. Through interactive, inclusive and participatory approaches, social enterprises can become a powerful instrument to engage the public with sustainability.

However, to date, social enterprises have yet to be explored as serious instruments of sustainability transitions. Little research has been conducted that systematically interrogates the dynamics of the sector, including research into the values that drive social enterprise and power relationships that underpin and are shaped through its discourses, representations and practices (Daya, 2014). In fact, there have been very few systematic reviews undertaken in the social enterprise/social entrepreneurship/social field more broadly (Roy et al., 2014).

A 2017 survey by Community Energy England identified 222 community energy organisations in England, Wales and Northern Ireland, the majority of which were classified as Social Enterprises (~77%), including Community Benefit Societies (BenComs), Cooperatives and Community Interest Companies (CICs). The remaining proportion was primarily comprised of charitable groups and unincorporated community bodies engaged in energy activities (Community Energy England, 2017). This study identified 121 MW of electricity generating infrastructure installed by community groups since 1997, generating 265 GWh, equivalent to the energy demand of over 85,000 homes (Community Energy England, 2017). Analysis of the community energy sector in the UK also highlighted the importance of considering the development phase of the niche from a local-level to a global niche (Seyfang and Haxeltine, 2012). This development phase determines whether local-level niche practices become more connected to make a niche established enough to breakthrough to the regime (Geels and Deuten, 2006), see Fig. 1.

Given that radical innovations break out of the niche level during ongoing processes within the socio-technical landscape and regime create a 'window of opportunity', we investigate social enterprises as an innovation that create multiple positive outcomes across the pillars of

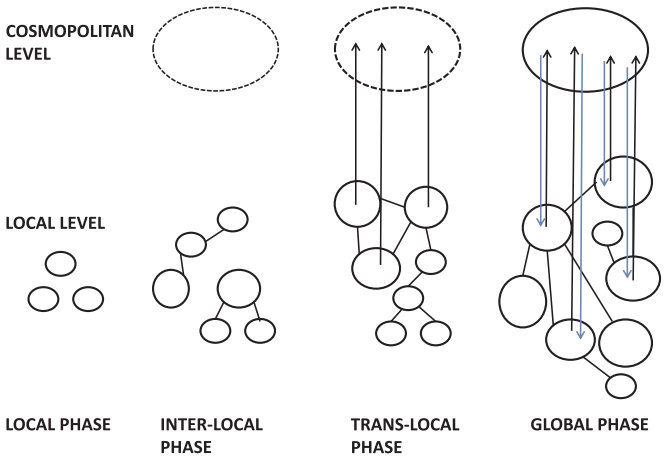

Fig. 1. Development phases of niches (Geels and Deuten, 2006).

Table 1
Summary of Key Informant interviews, North West England Feb - Oct 2016.

Key Informant	Professional Role	Organisation	Date of interview
Key Informant 1	Chief Executive Officer	Social enterprise (energy generation)	9th February 2016
Key Informant 2	Chief Executive Officer	Social enterprise (energy use reduction)	22nd February 2016
Key Informant 3	Research Officer	Business support for social enterprise	22nd February 2016
Key Informant 4	Project Manager	Public-Private Partnership	23rd February 2016
Key Informant 5	Company Director	Social enterprise (energy generation)	21st October 2016
Key Informant 6	Company Director	Social enterprise (energy generation)	26th October 2016
Key Informant 7	Company Director	Social enterprise (energy generation)	28th October 2016

sustainability. This study therefore represents a contribution to knowledge in the area of social enterprise research, as well as to the study of niche innovation in the transitions literature.

2. Methods

Qualitative research methods were employed in this study to provide contextual, explanatory and evaluative insights into the social enterprise landscape in North West England. Qualitative enquiry methods were selected to enable key informants to share their knowledge in a non-constrained manner during data collection following methods described by Ritchie and Lewis (2003) and Faherty and Morrissey (2014). Primary data were collated through a series of semi-structured interviews, framed in an open ended format (Hay 2000; Harding, 2013). Wilson (2014) states that semi-structured interview methods are appropriate when there is some knowledge about the topics or issues under investigation, but further details or insights are required. In this study, semi-structured interviews capturing qualitative responses enabled sufficient flexibility to explore key factors whilst maintaining consistency of approach and scope with all participants Harding (2013). This approach recognises that the content of each interview is unique, differing from the other interviews with regard to experiences, tone, personal and organisation involvement, etc. (Dierckx de Casterle et al., 2012).

In this study, 7 key informants were strategically and purposefully selected for inclusion in data generation, based on their roles as prominent social enterprise stakeholders in the North West of England. Key informants were not selected to provide an exhaustive or representative sample, but rather, for their capacity to provide insightful understanding of the practitioner perspective of the social enterprise and carbon reduction landscape in the Liverpool City-region. Investigations were focused on insights from individual stakeholders, but also on identifying evidence of regional interaction and networking. Potential interview candidates were contacted via both email and phone in order to arrange interview meetings. The interviews ranged from approximately 40 to 60 min in duration and were conducted in person. An open-ended questioning technique was employed, with informants asked to provide information about their role in the organisation and the issues that they had observed in their experience in the social enterprise sector. Interviews were conducted between the February 2016 and October 2016. Table 1 provides a summary of the key informants interviewed during the data collection phase and includes their roles and a descriptor of their respective organisations.

All interviews were audio-recorded and transcribed verbatim to facilitate the qualitative analysis process. On completion, interview transcripts were double-checked for accuracy and completeness of the interview record and copies of written records were sent to respective interviewees for comment or correction, as suggested by Harding (2013). In analysis of this type, the use of pre-prepared frameworks or strictly organised questioning runs the risk of prematurely excluding rich data that may provide considerable insights (Dierckx de Casterle et al., 2012). For this reason, standardised and detailed interview schedules were not produced, following the methods of Faherty and Morrissey (2014). For each interview, an overview framework was used through which to provide some structure and this is presented in Table 2. Questions presented in Table 2 were supplemented and adapted according to the respective interviewee, with questioning changing in response to emerging discussion points and articulated perspectives (Friedl and Reichl, 2016 apply a similar approach).

An interpretative approach was applied to data analysis by transcribing the interviews into written text, then condensing the data and coding it into themes, before final stages of reflection and synthesis of findings. This approach follows methods reported in Saldana (2013), Berg and Lune (2012) and Faherty and Morrissey (2014). Outputs from the qualitative analysis of interview transcripts provided a comprehensive characterisation of energy focused social enterprises, addressing internal and external barriers to social enterprise operating within this sector, including legal structures, income streams and interactions with private sector and policy. Fig. 2 provides a schematic overview of the approach to thematic analysis that was applied for each of the written interview transcripts.

The process outlined in Fig. 2 was both iterative and reflexive, meaning that upon identifying themes initially, the entire dataset was then re-interrogated to consolidate and better synchronise coded extracts and provide validation for identified themes. Dierckx de Casterle et al. (2012) argue that once final themes have been identified, researchers typically go through previous stages again, inevitably resulting in partial overlap and interaction between successive stages of analysis. Content analysis generated a short-list of common and critical themes, similar to the approaches reported in Shay et al. (2016) and Friedl and Reichl (2016).

3. Results and discussion

3.1. Business structure

Over the last decade, a number of countries have developed new legal statuses to better fit the needs of social enterprises that are neither

Table 2
Themes and indicative questions applied in semi-structured interview process.

Interview theme	Indicative Questions
Organisation	• Introduction to organisation? • Role within organisation?
Sustainability / Climate change	• Perception of sustainability issues? • Role of Social Enterprise in greener economy?
Business Structure	• Legal structures? • Operation structure of organisation?
Income Streams	• Types of income? • Financial sustainability of sector?
Barriers within Sector	• Barriers encountered to date? • Policy implications?
Future considerations	• Impact of your work? • Future issues in medium/long term?

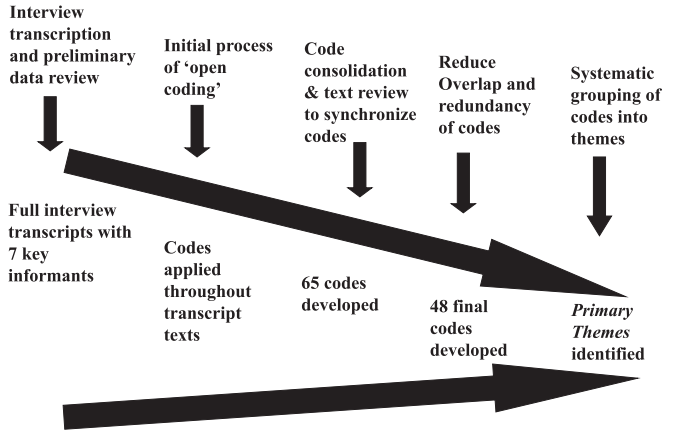

Fig. 2. Coding process applied for thematic analysis.

typical for-profits nor non-profits (Ebrahim et al., 2014). For social enterprises, a multitude of different legal structures exist and can be applied in the energy sector, with a range of implications for the organisation depending on the legal structure adopted.[2]

"We are a charity registered with the charity commission and we are also company limited by guarantee which makes us registered with Companies House as well." (Key Informant 2)

Interestingly interview data suggest that the rationale for selecting one structure over another were not necessarily strategically assessed for optimal performance at the organisational level. The influence of similarly focused organisations in the region seems to be paramount in providing a model for chosen business structure. New social enterprises follow the template established in other similar organisations within their frame of reference:

"I went to a conference on community energy in London a few years ago and it was pretty much like everyone who's big in community energy at the time was there talking about the projects they'd done and it was really incredible and then I went away and researched all the different groups and pretty much universally they were all community benefit societies." (Key Informant 1)

The presence of cooperatives in the locality was an important factor in the type of legal structure chosen due to funding and other support were visibly available at the time for start-up organisations:

"We're talking about 2011 now when the coop and its various arms were not only supportive of co-ops but were also able to put their money weather mouth was." (Key Informant 6)

There is some evidence that social enterprises within the community energy sector, which had originally set up as co-operatives, made a change to a Community Benefit Societies model. This model differs from a co-operative model in that the interests of a defined community drive the organisation as opposed to the interests of a discreet set of members. This seemingly small difference has had significant impact on the business models, and therefore viability of energy focused social enterprises:

"The community benefit society means you can trade for the benefit of a wider community, if you're a co-operative you're effectively trading for the benefit of your members" (Key Informant 1)

"I think we all agreed as a board that the cooperative movement is something that we would subscribe to. Technically it isn't actually a cooperative, technically the benefit of a cooperatives has to be specifically for the members, whereas with the community benefit the benefit is for the community and we subscribe very much to that way of thinking." (Key Informant 5)

The democratic ownership model of SE was also frequently cited and this was something which aligned with the stated world-view of certain key informants:

"It is more democratic because the members are more involved, it is one shareholder one vote whatever their shareholding." (Key Informant 5)

Table 3 shows how the expertise and the timing of setting up of each of the considered organisations played a role in shaping how the organisations themselves determined the favoured legal structure under which they should form.

Although newly created legal forms may prove to be important tools in some countries, most social enterprises across Europe still adopt legal forms that have existed for a long time. Namely those of association, co-operative, company limited by guarantee or by share, Industrial and Provident Societies in the UK, etc. (Defourny and Nyssens, 2010). A likely future issue in terms of business structure is the tendency for successful alternative economic structures to revert to a mainstream model (Johanisova et al., 2013). Johanisova et al. (2013) discuss the case of the German and Austrian credit union movement. As members stopped identifying with their local credit union and became withdrawn from the decision-making process, the decision-making power of local credit union entities was eroded and many have lost their autonomy to powerful federations in these countries.

3.2. Financial sustainability & conflicting priorities

Social enterprises income streams can come from a range of sources and the composition of these streams can impact on the legal structure of a given organisation. For the social enterprises interviewed, revenue streams consist of feed-in tariffs (FITs), grants, share offers and trading:

"So we actually set up a trading arm…to explore the opportunity of trading and providing that professional service to people on the open market." (Key Informant 2)

From the financial perspective, data from interviews demonstrates the priority interviewees placed on the need for social enterprises to become more financial sustainable through generating a larger proportion of their income through trade:

"So that's the next step for community energy now is moving away from a subsidy based model to one where we just sell directly to customers" (Key Informant 1)

"As a result of that we try to encourage our membership to be much more focused on financial sustainability from a trading perspective to trade their way to sustainability and profitability and to ensure that they are secure and resilient in their business from selling goods and services to people who actually want them." (Key Informant 3)

This view accords with evidence from the literature. Social enterprises are generally viewed as organisations characterised by a significant level of economic risk. Moreover, to be successful in bearing such risks over the medium and long-term, economic sustainability is a prerequisite (Defourny and Nyssens, 2010). The social enterprise's mission is only attainable if the social enterprise itself has a financially sustainable operation (Sodhi and Tang, 2011). In practice, many social enterprise managers continuously make trade-offs between increasing productivity for financial gain versus increasing productivity for social benefits (Zainon et al., 2014):

"Sometimes there is a lack of focus within social enterprise on what needs to happen to make themselves financially sustainable long-term." (Key Informant 3)

[2] Organisational forms, the social objectives and the fields of activity of social enterprises can vary considerably across countries and even within a given country (Defourny and Nyssens, 2010).

Table 3
Approach adopted in setting up organisation.

Organisation	Key Informant	Established	Board of Director Expertise	Legal Structure	Reason for setting up that way	Approach to setting up
B	2	1995	Social housing, fuel poverty, sustainability and business	Registered Charity and Company Limited by Guarantee	Originally a charity looking at environmental issues but opted to add a trading arm so they could look at different type of income streams	Strategic – *picked as it best suited what they wanted to achieve*
C	5	2011	Business, local council, psychology and engineering	Ben Comm	The structure enabled values they all subscribed to, democratic and community focused	Worldview – *directors wanted a more democratic approach to energy*
D	6	2012	Engineering, urban and eco regeneration, project management, sustainability	Ben Comm	Two clear options but chose co-operative model due to funding available at the time	Funding led – *availability of start-up funding and support*
E	7	2013	Legal, finance and governance	Ben Comm	All possible options evaluated and decision made on which type that enabled them to achieve what they wanted to	Strategic – *picked as it best suited what they wanted to achieve*
A	1	2014	Strategic planning, engineering, social housing and renewable energy	Ben Comm	It's what other similar organisations were doing	Duplication - *Used other community energy organisations as a template*

Social enterprises thus face a unique governance challenge: how to handle the trade-offs between their social activities and their commercial ones, so as to generate enough revenues but without losing sight of their social purpose (Ebrahim et al., 2014):

> *"The intention is to set up a business which is a self-funding, sustainable business but has very much a values based approach to what we do and has a clear intention to democratise the energy system as we move in to a post carbon energy system." (Key Informant 1)*

Social enterprises that combine social and commercial activities at their core face a distinct challenge because their definition of success includes both dimensions; dual objectives are not necessarily aligned and may in fact be contradictory, potentially undermining the organisation's ultimate mission (Ebrahim et al., 2014). Evidence from interview data suggests that the issue with creating financial sustainability can be attributed to not only a lack of trading opportunities, but also to the social mind-set of the business leaders focused on multiple bottom line performance:

> *"If you're looking to specifically build a green economy in a market-based economy the problem with social enterprise is that it is not a cheaper option because there are all sorts of other concerns the impact on the bottom line." (Key Informant 3)*

> *"One of the challenges for charities particularly is how much of the income is spent on beneficiaries and how much of it is corporate." (Key Informant 2)*

Concern for the legitimacy of a social enterprise as a social organisation may lead to attempts to ensure that the business is fully sustainable from economic, social and environmental perspectives. However, the implication of this is that the costs in creating a fully ethical business can mean that consumer prices are uncompetitive:

> *"Sadly the end consumer might look at it and say well on a purely financial basis I can't afford to be giving business to a social enterprise, even though they are more ethical, because the price might be greater than with the traditional private company." (Key Informant 3)*

Trade-offs emerge between addressing the demands of their paying customers who are viewed as key stakeholders for businesses, and addressing the needs of the beneficiaries of their social mission who are viewed as principal stakeholders in charities (Ebrahim et al., 2014). As argued by Sekerka and Stimel (2011), organisations with a strong stakeholder or environmental perspective may not adapt to the practical realities of the bottom line, and accomplish no more than increasing the probability of going out of business.

The interviews showed that the range of views that are held by the company directors can also play a role in the priority given by organisations to the generation of surpluses. In some cases profit was talked about as it was a negative aspect; the word profit was used carefully and was frequently qualified with a clarification or justification: A clear theme of tension along the financial and social axis emerges from some of these interviews.

> *"We don't discuss it but market forces and liberal economics and all of that I am very concerned about." (Key Informant 5)*

> *"I keep calling it a not-for-profit, but it is profit for the benefit of the community rather than the benefit of external stakeholders" (Key Informant 7)*

> *"So involving the members is something that we very much like to do but you wouldn't do that with a more commercially minded business." (Key Informant 5)*

A commonly encountered and clear value judgement identified during interviews was a stated desire to ensure that the organisations reinvested any surplus into the community rather than using these funds to address the over reliance on volunteers to establish, operate

Table 4
Changes to number of registered community installations following periods where significant drops to FITs occurred (Ofgem, 2017).

Photovoltaics							
Period				Totals		Average (per day)	
Start date	End Date	No. of days	FIT change	Installations	Installed capacity (MW)	Installations	Installed capacity (MW)
01/04/2010	02/03/2012	702	0%	814	5.80	1.160	0.008
03/03/2012	31/07/2012	151	−55.95%	436	5.77	2.887	0.038
01/08/2012	14/01/2016	1262	−33.14%	1145	23.43	0.907	0.019
15/01/2016	20/06/2017	523	−60.97%	367	195.55	0.702	0.374
	Totals:	2638	−88.68%	2762	230.55	1.047	0.087
Hydro-electric power							
Period				Totals		Average (per day)	
Start date	End Date	No. of days	FIT change	Installations	Installed capacity (MW)	Installations	Installed capacity (MW)
01/04/2010	30/09/2014	1644	0.00%	19	0.52	0.012	0.0003
01/10/2014	31/03/2015	182	−14.45%	3	0.49	0.016	0.0027
01/04/2015	14/01/2016	289	−37.31%	8	0.88	0.028	0.0030
15/01/2016	31/03/2016	77	−25.40%	2	0.12	0.026	0.0016
01/04/2016	20/06/2017	446	−10.86%	11	1.27	0.025	0.0028
	Totals:	2638	−64.33%	43	3.28	0.016	0.0012

and develop the organisations;

"Yes so now there is 4 directors, we're all voluntary and therefore not getting paid for this because we think that's the right thing to do and we got a few volunteers who help out as well" (Key Informant 7)

"We are volunteers, the four directors and company secretary." (Key Informant 5)

Similar conflict of motivation emerged on the environment versus. social axis. Key informant seven identified the economies of scale possible with a larger operation. However, this consideration had to be reconciled with a need for the maintenance of local links and an active community level presence.

"But I know there's quite a few debates on things like community energy and whether they should be large organisations that can do this because of economies of scale but then you lose some of that local link where there's some power in that localisation thing I think as well" (Key Informant 7).

3.3. Feed-in-tariff

The UK Feed-in-tariff (FiT) scheme was established in 2010 under the Energy Act 2008. The aim of the scheme was that small scale renewable energy projects would earn around a 5% return on investment, with FIT amount depending on the type of technology used and the size of installation. The government in the UK has periodically reduced the FIT since 2010 and in the example of solar, the rate has reduced from 43p per kWh generated to the current level of 4p per kWH generated (Ofgem, 2016). Table 4 presents an overview of changes to numbers of registered community installations following periods where significant drops to FITs occurred.[3]

The reduction of the FITs across different types of renewable energy represents a major shift within the community energy sector, one which has threatened the potential for financial sustainability for many social enterprises.

"The feed in tariff then created this whole business model and so taking it away has just messed it up…every now and again they decide to massively cut the feed in tariff so everyone's business model goes out. But now it's basically at zero there's nothing left." (Key Informant 1)

"It wasn't just solar, they cut the subsidies for hydro and wind and took them away a year early for wind." (Key Informant 1)

"Amber Rudd who became Environmental Minister after the May election last year and the bonfire of subsides began" (Key Informant 6)

Prior to this there was a clear and viable business model as FIT rates were guaranteed for 20 years and designed to supplement the income obtained from generating energy and selling it back to the grid.

Due to the uncertainty caused by the removal of the FIT 3 of the energy generation projects studied were adversely affected, and are now having to seek out new opportunities and significant adjustments to their original business models to identify avenues for future viability. The FITs cut, which can be considered as a red tape crisis according to Greiner (1998), has stimulated innovation across the sector which is forcing organisations away from the idea of a ready-made business model:

"We then started to explore was virtual supply which I think again is a fascinating emerging field" (Key Informant 6)

According to Greiner (1998) if organisations can come through this phase of uncertainty successfully then this will make them more robust in the future, ensuring resilience to ad hoc policy changes. However, the MLP model and SNM literature suggests that not all niches become developed enough to break through to the regime. The idea of failure of niche innovations was captured during the interviews:

"I think the failure rate is going to be enormously high, simply because people don't have the kind of capacity, is a very steep learning curve, there is no training for it in that respect. So I think there is potentially huge opportunity but I see it as being incredibly fragile…So all these kind of very, very fragile little seedlings which were watered for a while and then a big storm came along and flooded them all out."(Key informant 6)

A considerable knowledge gap exists on the means to robustly support SE innovation niches to enable break-through to the regime level.

3.4. The importance of social capital and community links

Since social enterprises explicitly exist to benefit the community, and communities typically have a controlling stake in the organisation through democratic ownership structures, social enterprises are more likely to satisfy real needs (and less likely to externalise their costs), than for-profits (Johanisova et al., 2013). The term social capital has been applied in the academic literature for many years and is used to describe social networks where trust and reciprocity are at the centre of transactions that are carried out for a common good as opposed to

[3] Significant drops are defined as over 10% decrease from one period to the next.

individualistic gain. In this context, Johanisova et al. (2013) identify the long term generation of positive externalities as a key defining feature of locally rooted enterprises, when compared to large multinational corporations. Themes of positive externality and social capital are evident from interviewee data:

"People who run social enterprises are very keen to treat their supply chain fairly, they're very keen to treat the people who work at those organisations in a fair manner." (Key Informant 3)

"We therefore need to empower people to make their own decisions and then invest in it and that to me is going to come through community and through engagement." (Key Informant 2)

Data from interviews reinforces that social capital is an important point of leverage for social enterprise when targeting organisational missions. This manifests in two related ways: in enhancing the credibility of the social enterprise and in providing a sense of legitimacy. Social and environmental profits flow to the community and consequently the economic profits flow back into the social enterprise within the ambit of social enterprise legitimacy (Zainon et al., 2014). The local scale and focus of social enterprises is therefore critically important, and this is evident as a clear theme from interviewee data:

"Energy is something we all rely on and some of that when you put infrastructure locally should be rewarding the locals." – (Key Informant 4)

"You need to find that balance and find a way of favouring local people as much as possible by local people becoming members and building a local membership base." – (Key Informant 1)

The community aspect of social capital is something that is intrinsically embedded within the core of SE in terms of operating surpluses utilised for community benefit. This key feature of the business model is echoed by the personal desire of the company directors to not only support but give something back to the communities they are operating in:

"With the community benefit side of it we're trying to involve members as much as possible through the forum and was setting up a small group of members to look into that and make recommendations to the board, that kind of thing" (Key Informant 5)

A recurring theme across the interviews was the shifting of power from private corporation and government to a local level as a way for communities to become actively engaged with the energy system and empowered to act on climate change within their own personal lives:

"That's one of the really nice things about community energy as well is that you start to take back control of, in this case electricity supply, into the hands of local people and that the benefits and the profit from that those activities come back to the local community." (Key Informant 7).

"The word community is incredibly powerful and I discovered that both through this and we used community in our name very deliberately. The community bit is very appealing and in discussion with people when you talk about any community effort, certainly around here, people's eyes light up and you can see it in a conversation" (Key Informant 5)

3.5. Niche-regime dynamics – the impact of policy, legislation and regulation

The relationship between social enterprise and the mainstream 'regime' would appear to be an uneasy one. Frequently changing environmental policies and interactions with private sectors energy companies presents significant challenge for social enterprise operations. In terms of changing environmental policy, several policy changes have had an effect on the organisations interviewed; for instance the rapidly changing policy positions of the now defunct Green Deal and the FIT for solar energy in the UK have had a disruptive and unsettling impact. Policy is not the only this that has had impacts on the organisations as legislative and regulatory factors have provided significant barriers to the success of the projects.

The relationship between social enterprise and public policy can be described as uncertain at best. It is evident that radical policy changes can have a detrimental impact on the viability of a given social enterprise as a legitimate business rather than as just a charitable entity. According to Mikami (2014), the failure to define the social economy in an unambiguous way causes confusion in the system of domestic laws that regulates the social sector. Such problems are exacerbated by uncertainty across the environmental and energy policy landscape, as has been the case in the UK for the past number of years:

"We actually set up a trading arm … to explore the opportunity of trading and providing that professional service to people on the open market. However, the timing of it was such that the government axed the Home Information Packs, the whole market dropped." (Key Informant 2)

Such uncertainty is exacerbated by a reliance on top-down funding, and in particular, on grants and subsidies as an integral component of the social enterprise's revenue stream.

"So when there was a feed in tariff, which made projects profitable, then there seemed to be a way of encouraging a social enterprise to consider community energy…We are in new times as of December with a lower tariff…it makes the numbers a bit harder to reconcile." (Key Informant 4)

"I don't see our organisation not operating with the support of grants for a few years. Purely because the tradable opportunity that exists in our field was eco-and green deal, which were the opportunities to engage with householders and acting as a broker and introduce householders to measures." (Key Informant 2)

More generally, social enterprises broadly remain closely tied to the public sector and to public sector support. Support through public policies has to date, and still remains, a key channel for the diffusion of various models of social enterprise throughout Europe, for instance (Defourny and Nyssens, 2010).

3.6. Niche-regime dynamics - relationships with other public and private sector organisations

The relationship between social enterprises and private sector businesses can exist in two different forms, competition or collaboration. Both of these issues were discussed by the interviewees. In addition, network building is a theme that cut across both competition and collaboration, and was strongly emphasised in interview data:

3.6.1. Competing

Mainstream businesses may not be interested in competing with social enterprises in certain "niche markets" that are too small to be profitable. If a social enterprise does subsequently prove to be highly profitable, then other big business may enter the market and compete (Sodhi and Tang, 2011).[4] Social enterprises have certain competitive advantages over private companies, but may also be commercially unable to compete with much larger entities:

"There are fewer social enterprises winning larger contracts than would be accounted for by the percentage of the business economy that social enterprises make up" (Key Informant 3)

"I know that commercial investment is still going ahead and they want rates of return of 20%. If community groups only want a return 4% interest…you think that they'd have more room to manoeuvre."(Key Informant 4)

[4] These challenges may explain why there are few successful social enterprises with revenues of over $1 billion per year (Sodhi and Tang, 2011).

"At the moment there are a lot of small energy companies entering the energy market to compete with the big six. They're able to do that I think because they don't have some of the costs that the big six have." (Key Informant 4)

3.6.2. Collaboration

Multi-dimensional social problems which no party can tackle on its own highlight the need for collaboration between business and social enterprises (Sakarya et al., 2012). Adoption of collaborative strategies for social causes is primarily derived from financial resource dependence for social enterprises and from concerns for legitimacy for business enterprises (Sakarya et al., 2012). However, interviewees expressed a certain level of scepticism of the motivation for, or the benefit of such collaborations:

"Private companies tend to fund social enterprises and charities out of their CSR budgets and it can be viewed, by some at least, as a way of giving a kind of whitewash to activities that are peripheral to the central mission almost as an organisation." (Key Informant 3)

".. this relationship between business and community and third sector charities and social enterprises, the danger that smaller organisations are taken advantage of or seen as a means to make a sale." (Key Informant 2)

3.6.3. Network building

As social enterprise is inherently a hybrid form of organisation, it can potentially strengthen the ties between various actors. In this sense, social enterprise as a collaborative partner is able may add considerable value to networks (Park and Wilding, 2014).[5] Interview data suggests that there are key actors within energy focused social enterprises across the Liverpool City Region, and also efforts underway to build and enhance this network's capacity:

"We have worked with the Liverpool City Region Local Enterprise Partnership, specifically on their strategies and their economic development program and trying to make the social economy more of a strand in what they're doing." (Key Informant 3)

"The work we do with existing organisations, it's primarily around networking, so every couple of months we hold a social value networking event for all of our membership who can turn up ….and you know, bring your business card to make contact with each other." (Key Informant 3)

According to Park and Wilding (2014), social enterprise has the potential to link together a wide range of actors. In particular sharing learning with other projects and organisations was a very clear theme across the interviews:

"It's the kind of work that's being done out there by this network of enterprising people some of them of whom are in universities, some small digital companies working from somebody's bedroom. (Key Informant 6)"

"We learnt a lot from other schemes" (Key Informant 5)

3.7. Innovation for regime transformation & Future outlook

While the energy sector is currently a difficult environment for social enterprises to attain financial sustainability, interviewed organisations were optimistic that this would still be a possibility in the future. Interviewees were also generally optimistic about the role of social enterprise in transforming the energy system to a low carbon model:

"We've identified the low carbon economy as a key sector of activity. So that means that we believe there are jobs and growth to come from green businesses and adapting the energy infrastructure of the region" (Key Informant 4)

"I do believe there will be opportunities going forward for us to trade more…." (Key Informant 2)

However, significant barriers identified included regulatory and policy uncertainty, as discussed and importantly, issues of scale and 'take off'. In transitions terms,'windows of opportunity' emerge whereby innovations break out of the niche-level when ongoing processes at the levels of regime and landscape align (Geels, 2002). However, such processes do not typically occur unaided, or without policy support or government subsidy. In particular promising niches may require additional support to get to a position to challenge the existing regime. In this context, 'initial hurdle' and 'take off' were terms explicitly used by key informants:

"But they just wanted that little bit of funding to get them over the initial hurdle…. if they're looking to go and speak to someone at the other end of the country they need travel fares or they want to have business office accommodation for a week." (Key Informant 3)

"The costs to entry and the costs to setting up in that sort of structure are very, very low…It could be that were on the verge of a precipice where actually it just needs a little bit more of a push and you do achieve the sort of take-off speed that they need." (Key Informant 3)

This is a critical aspect in terms of the role of social enterprise within transition processes, and one in need of further research. According to Johanisova et al. (2013), dimensions of scale, place and the environment should be accorded more importance in the social enterprise discourse, something which the authors here agree with. From a scale point of view, there was recognition that social enterprises were very much operating in a niche environment, and that considerable challenges existed in bridging the gap to the mainstream regime:

"You have maybe three or four people in an office in a provincial city in the north of England working to promote the green economy. Whereas there maybe 300,000 to 400,000 people across the country who are working for a big multinational energy corporations that don't have this on their radar." (Key Informant 3)

However, certain advantages of operating in niche, small scale were also recognised. Sekerka and Stimel (2011) argue that 'first-mover' firms are likely to reap advantages in the areas of innovation and culture change, which will help to ensure their future viability. Smaller firms are also better able to respond to changing circumstances and opportunities, as well as being able to take more risks:

"So they can take more risks and if they're smaller they can be more flexible and more nimble and they and just say things that bigger businesses can't say, they can put messages out and do things that maybe big businesses or other businesses can't quite do." (Key Informant 1)

For social enterprises in particular, the ability to operate without the same degree of commercial pressures as private organisations was recognised as an advantage:

"But if its community we don't need to make money, we just need to pay back the money that was invested. We don't need to be making 10% off the top so the figures would surely stack up for us on that basis." (Key Informant 1)

However, a lack of certainty clearly represents a major barrier to the innovative and competitive potential of social enterprises:

"It's still a bit murky at the moment to know where the value is going to be." (Key Informant 4)

[5] Under certain circumstances, social enterprises can help to facilitate innovative responses to social needs, greater integration of networks, and more productive partnerships (Park and Wilding, 2014).

4. Conclusions and policy implications

The autonomous nature of the social-economic model applied by social enterprises can represent a viable means to target social, environmental and economic multiple-bottom lines. Such organisations can develop strong links to their local communities and provide positive externalities in generating financial revenue, while also remaining fully cognisant of, and structured towards social outcomes. There are clear potentials for social enterprise models to be more extensively applied to address contemporary ecological challenges of neo-liberal market economies, moving towards 'win-win-win' outcomes across social, economic and ecological domains; particularly as these organisations are not motivated by a relentless profit imperative. Yet given this potential, we do not advocate that social enterprises are, and should be, the only model to replace the current socio-technical regime, irrespective of their desirability. Indeed, on their own, social enterprises are not equipped to single-handedly replace the existing sociotechnical regime. There exists a considerable scale challenge for social enterprises to be considered part of the prevailing energy system regime. Community Energy England (2017) identified 121 MW of electricity generating infrastructure installed by community groups, generating a total of 265 GWh for instance. This currently represents ~0.074% of the UK's total annual electricity demand (356,749 GWh total UK demand in 2016 (Department for Business Energy and Industrial Strategy (UK Gov), 2017)). Rather, social enterprises are an example of organisational and social innovation that could be applied as part of a wider 'social turn' within sustainability transitions.

The transitions literature, to date, has mirrored the policy focus on climate change and tended to emphasise the technological aspects of socio-technical transitions, at the expense of organisational and social innovation, movements and actors (Seyfang and Haxeltine, 2012; Smith et al., 2005). Frameworks such as the MLP in particular, are typically interpreted in technological terms. Addressing this gap, this study explores social enterprises as an example of an organisational and social niche innovation. Consequently, we interpret, and amend the MLP to account for such organisational and social innovations, and use MLP concepts to better understand how social enterprise can interact with the socio-technical regime for energy generation. The SNM literature illustrates the importance of a protected incubation space so that niches can become developed enough to break through to the regime. Within the context of community energy in the UK the incubation space provided by the government through the FITs has been reduced before originally expected. However, findings show that post-FIT organisations are starting to innovate their business models to move away from subsidy-based models in favour of becoming financially sustainable in their own right.

Furthermore, this paper demonstrates that a number of barriers exist which, in the medium-long term, may limit the potential of social enterprises to deliver regime transformation, or to act as 'transitions engines'. Chief amongst these is a lack of clarity or certainty on the policy and regulatory landscape in which they operate. This is true in particular of the energy and environmental policy landscape, more-so than the regulatory landscape for social enterprises. *Ad hoc* and reactionary policy change in the UK has acted as a major challenge to energy-focused social enterprises. It is clear that social enterprises are already playing an important role in the energy sector, yet there is considerable scope for this role to be scaled up, potentially with minimal grant or subsidy support. Support for the 'take-off' stage was identified as being particularly important. What is also clear is that the social enterprise model could in fact deliver a regime transformation, the evidence suggests that this represents a realistic goal only in tandem with transformative innovation across the regime, including for example, associated changes in practices of consumer behaviour and expectation, and in wider consumer value considerations. Energy focused social enterprises can deliver on social sustainability in two ways: through delivering on the needs fulfilment of energy generation through a socially and ecologically more benign model as discussed in the Brundtland report (Brundtland, 1987) and through the development of the capabilities of present people (communities) without compromising capabilities of future generations, as discussed by Sen (2013). Drawing upon findings from semi-structured interviews with key informants, this paper provides an initial exploration of the value of social enterprises as a driver for sustainability while evaluating social enterprise characteristics that suggest potential for wider transformation at the regime level. Where for profit organisations rarely illustrate their societal impact, social enterprises incorporate this as a key component in the business model while often drawing upon community involvement. This was particularly evident given the willingness of social enterprises to work with multiple stakeholders. However, specific barriers relating to funding support streams and the ability to compete with the 'big six' energy providers remain as key challenges. While the data collected in this paper are from the UK, further study is warranted within international contexts. In so doing, there are a number of areas that need to be addressed by future research. Principally, further research should investigate in what ways social enterprises are evolving as a result of changes to measures (such as FIT) within incubation spaces. Additionally, research should clearly identify medium-long term drivers and barriers to social enterprise and how these can be addressed.

The findings from this paper have clear and substantial implications for policy and practice. There is a need to protect the incubation space for social enterprises to support their development as they begin to maximise their potential before breaking through to the regime level. While the FITs were only implemented as a temporary measure, withdrawing this key support measure early risks the effectiveness of the incubation space to support transitions in practice. From this point in the UK context, there is a need to support social enterprises innovating further rather than reinstating the FIT. Funding could be provided to support start-up or business model development activities as this supports social impact agendas that FITs do not offer and, is arguably, where true innovation lies for social enterprises.

As previously discussed, debates on social enterprise can be framed within the wider need to imagine alternatives to neoliberal capitalism and associated negative social and environmental impacts (Daya, 2014). In this sense, the narrow framing of policy instruments such as FiT for instance, from purely an economic standpoint risks neglecting potential environmental and social gains which may accrue. There is a wider debate to be had on whether the State needs to do more, and to pay more, for sustainability outcomes, particularly in terms of the needs and capabilities perspectives on sustainability and social sustainability outlined. Such a debate should incorporate questions on the reconciliation of social and ecological sustainability goals with neo-liberal market driven modes of governance as well as the time-frames and triple-bottom line implications of government interventions. In the case of community energy social enterprises, there is an argument that the State should be providing considerably stronger supports to allow the niche to breakthrough to the regime level. However, such support may not necessarily constitute subsidies; the evidence from this study suggests that the initial reliance on subsidies in the form of FiT, followed by removal of this protected space has caused considerable problems. Such debates also should carefully consider questions of scale, ie. how big should social enterprises get, what is a desirable level of proliferation of community energy social enterprises and what are the implications for community capabilities of upscaling?

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Glossary

Business Models: A plan for the successful operation of business including details of financing, legal structure, target markets, key activities and value proposition
Feed-In Tariffs (FITs): A subsidy provided by the UK government to household and businesses generating their own electricity through renewable energy sources
Multi-Level Perspective (MLP): Theoretical framework that can be used for analysing socio-technical transitions towards sustainability through looking at the interactions between three different levels; landscape, regime and niche
Niche: The level or 'area' at which the space is provided for radical innovation and experimentation. This level is less subject to market and regulation influences and can facilitate the interactions between actors that support product innovation
Niche Innovations: New methods, ideas or technologies which are experimented with at the niche level
Regime: The dominant practices, rules and technologies that provide stability and reinforcement to the prevailing socio-technical systems. Regimes not only refer to cognitive routines and belief systems, but also to regulative rules and normative roles
Socio-Technical Transition: An approach that combines the science and technology in devising a production, with the application of the technology in fulfilling a societal function. This approach considers a transition to be multi-dimensional as technology is only one aspect
Social Enterprises: An organisation which gains, or has the potential to gain, the majority of its income through trade and then uses surplus to address a social or environmental need. Examples of social enterprise structures in the UK are Co-operatives, Community Interest Companies and Community Benefit Societies
Strategic Niche Management (SNM): A tool to support the societal introduction of radical sustainable innovations. However, it has been mainly used in retrospective to analyse historical case studies
Third Sector: Part of the economy or society comprising of voluntary or non-for profit organisations
Energy Justice: Sovacool et al., (2017 p677) define "energy justice" as a global energy system that fairly distributes both the benefits and burdens of energy services, and one that contributes to more representative and inclusive energy decision-making.
Social Innovation: The development of skills, knowledge and social capital.