'IT'S THE SOFT STUFF THAT'S HARD': INVESTIGATING THE ROLE PLAYED BY LOW CARBON SME ADVISORS IN SUSTAINABILITY TRANSITIONS.

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ABSTRACT

Significant public funds are invested in low carbon advisors to support SMEs to reduce carbon emissions on a regional basis. Little research has been conducted on their experiences and practices, nor their place within the context of local business support policy. Findings draw on interviews with 19 advisors in the UK as well as the author's four years' experience as an environmentally focused business support practitioner. Establishing and sustaining engagements with SMEs on the topic of pro-environmental behaviours is a multi-faceted problem. Advisors typically approach businesses with promises of cost savings rather than using environmental messaging, and focus their resources on the provision of building energy audits and technical advice. Advisors rarely engage SMEs in values-based discussions, or by seeking to understand how and why energy is used in the course of everyday business practices. The paper argues that face-to-face meetings could be better utilised if 'softer' skills were deployed alongside technical expertise. It discusses the limitations of growth-focused support in the context of environmental objectives, and calls for a shift in the culture of advice-giving, supported by social scientifically-informed policy.

KEYWORDS

SMEs; middle actors; intermediaries; environmental policy; business support; low carbon transition

INTRODUCTION

Small and medium sized enterprises (SMEs)[1] make up 99% of all businesses worldwide, use 13% of energy, and may be responsible for 20% of carbon emissions in the UK (IEA, 2015; AXA, 2008)[i]. There is significant potential for SMEs to reduce their energy consumption and associated emissions. For instance, 18-25% energy savings can typically be made through efficiency measures, up to 37% of which require no capital investment (DECC, 2014). However, take up of these cost-effective opportunities is low. Research has shown that owner-managers often perceive their businesses to have little impact on the environment, and consider pro-environmental actions expensive (Revell and Blackburn, 2007). Drivers such as corporate social responsibility (CSR) and environmental legislation have been shown to be less motivating for SMEs than larger enterprises (Williamson et al., 2006; Wilson et al., 2012).

There is wide acknowledgement that the private sector is failing to deliver the energy and carbon savings from SMEs at the speed and scale required to meet national targets for decarbonisation (Committee on Climate Change, 2016). Public policy therefore has an important role in supporting SMEs to reduce their environmental impact (IEA, 2015). However, SME groups are typically resistant to conventional 'hard levers' such as tax and regulation (Hampton and Fawcett, 2017). Across the EU, the favoured approach to low carbon policy for SMEs is based on providing incentives such as grant funding and face-to-face support, which is typically implemented alongside conventional business support policy, focused on economic growth and job creation (DCLG, 2015). Although it is acknowledged that SMEs' environmental impact goes beyond their consumption of energy, as the single largest source of emissions, energy attracts the most policy attention and investment of resources. The focus of this paper therefore reflects the focus of low carbon advisors: on energy efficiency opportunities for SMEs.

Within the prevailing incentive-based model of policy, low carbon advisors are shouldered with significant responsibility. Alongside direct grant subsidies, their recruitment, training and deployment represents the largest investment of public funds in supporting SMEs to reduce energy consumption and carbon emissions (DCLG, 2017). This emerging group of governance stakeholders are tasked with engaging and recruiting SMEs to

[1] [1] Small and medium-sized enterprises are defined by the European Union as businesses that have fewer than 250 employees and either a turnover of less than or equal to E50 million or a balance sheet total of less than or equal to €43 million (European Commission, 2003)

projects; identifying cost-effective investment opportunities; providing expert advice, and encouraging pro-environmental action (Parag and Janda, 2014; IEA, 2015).

Despite significant the resources and responsibilities invested in low carbon advisors, they remain significantly under-researched. Little is known about the experiences and practices of delivering low carbon business support to SMEs, nor is there definitive evidence on how best to deliver emissions savings. Although the latter issue is beyond the scope of this study, this paper addresses the former research gap by providing in-depth, qualitative insights into the role of the low carbon advisor. For an *academic* audience, it contributes towards a growing literature concerned with the changing landscape of environmental governance (Marsden et al., 2014; Turnheim et al., 2018); raising the profile of these actors as important stakeholders for the sustainability transition. It challenges *practitioners* to be creative and ambitious; to develop and deploy 'soft' skills which will both enable them to engage SMEs in values-based discussions, and to focus on *how* and *why* energy is consumed in everyday working practice. Finally, it questions the prevailing design of governance and funding structures, and appeals to *policy makers* to generate people-centred policy, informed by social science.

The next section describes the state of business support in the UK and reviews academic and policy literature on the role of low carbon middle actors. Section three describes the methods used to gather data for this empirical study. Research findings in section four portray the practice of low carbon advice-giving for SMEs. Evidence shows that supporting SMEs to reduce their carbon footprints is a difficult challenge, requiring agility, salesmanship and a balance of technical and 'soft skills' on behalf of advisors. Participants' views on low carbon policy are also presented. The discussion points out that face-to-face meetings, workshops and local SME networks are expensive options for support provision, and highlights opportunities to make better use of these interactions. The conclusion summarises the implications of this research for low carbon advisors and their funders.

LOW CARBON BUSINESS SUPPORT

External business advisors are used by over 90% of businesses in the UK (Mole et al., 2017). The majority of advice (75%) is provided by private sector sources, with accountants, customers, business friends and consultants each more likely to be called upon than government agents (Bennett, 2008; Sivaev, 2013). However, most SMEs do not actively seek advice relating to their environmental performance (Parker et al., 2009). This is partly because owner-managers perceive their businesses to have little impact on the environment, and pro-environment action to be expensive (Revell and Blackburn, 2007; Simpson et al., 2004). SMEs therefore express a strong preference for the free provision of low carbon support (Parker et al., 2009).

The provision of low carbon support for SMEs delivered by the private sector without subsidy is relatively small. Energy services companies typically focus on higher energy consumers (Bertoldi et al., 2006), and sustainability consultants target larger corporations, more likely to have corporate social responsibility (CSR) objectives (Revell et al., 2010). By contrast, Spence (2007) found little evidence for competitive advantage gained by SMEs undertaking CSR initiatives. There is a significant marketplace for assisting SMEs to switch energy supplier, and 85% of UK SMEs are contacted by brokers per year (Lomax and Parry, 2015). However, these intermediaries have little incentive to advise SMEs on reducing demand.

Despite the often compelling business case for investment in energy efficiency, studies have shown that uptake is low amongst SMEs. Energy expenditure makes up a relatively low proportion of average SME operational costs, with 66% and 71% of small businesses reporting spending 10% or less on electricity and gas respectively (Lomax and Parry, 2015). This means that efficiency measures are likely to be a peripheral consideration for SMEs (DECC, 2014). Described as the 'energy efficiency paradox' (DeCanio, 1998), the low uptake of energy and emissions savings opportunities is considered by the UK government and EU to be a market failure (DECC, 2014; European Commission, 2017). Consequently, there is wide acknowledgement that the public sector has a role to play in providing incentives and support for SMEs to engage in pro-environmental actions (Baranova and Paterson, 2017).

In England, publicly funded assistance for SMEs to reduce their environmental impact is integrated into the broader provision of business support, through Local Enterprise Partnerships (LEPs) and Growth Hubs (Britton and Woodman, 2014). The primary objectives of these organisations are to stimulate growth and generate jobs across the economy (Coutu, 2014; Heseltine,

2012). A large proportion of funding for supporting SMEs comes from EU sources such as the European Regional Development Fund (ERDF), which is overseen in England by the Department for Communities and Local Government (DCLG). Organisations such as LEPs bid for funding for projects which target SMEs with specific objectives including job creation, research innovation or the acceleration of smart technologies (DCLG, 2015).

With environmental concerns rising up the EU policy agenda, one strand of ERDF funding is dedicated to 'supporting the shift towards a low carbon economy'. Worth £580m in the UK over 2014-2020 it includes ring-fenced budgets for promoting energy efficiency and renewable energy generation in SMEs. At the time of writing (December 2017), £99m had been committed to local low carbon projects, each targeting SMEs with offers of low carbon support (DCLG, 2017). Of these projects, a majority offer energy advice and audits and grant subsidies for investment in new energy-saving equipment, although some projects offer other services such as feasibility assessments for the deployment of renewable generation, and the translation of research. *Low Carbon Workspaces* is an archetypal project, offering free energy audits SMEs in Buckinghamshire and Hertfordshire, and grants of 33% towards investments such as low energy lighting, efficient heating systems or efficient process machinery. The £2.5m project employs four low carbon advisors, responsible for recruiting SMEs, conducting energy audits and advising on emissions reductions opportunities.

THE ROLE OF LOW CARBON ADVISORS

The important role of low carbon advisors is acknowledged in international policy literature, with a number of government supported organisations producing best practice guidance for funders, managers and advisors. The International Energy Agency's report on 'accelerating energy efficiency in SMEs' sets out a ten step pathway for programme managers based on case studies from around the world (2015), while the Australian Energy Efficiency Council frames SMEs as 'buyers' of advice and support services, highlighting ways in which energy efficiency can be *sold* by middle actors (EEC, 2016). A UK government study recommends that 'enablers' use accessible language, tailor their approaches to each business, and aim to build long-term relationships (DEFRA, 2006). Addressing an audience of policy makers across departments, a more recent UK government report identifies insights into organisational decision making, emphasising the importance of engaging with intermediaries in both the private and public sector (DECC, 2016). The report aims to prompt policy makers to incorporate advisors into their policy design with questions such as 'do you have a sense of what/who the 'trusted sources' are for the organisation(s) you seek to influence?'. Another report for the International Energy Agency puts it more bluntly: 'Go to trusted intermediaries. TRUST IS EVERYTHING.' (Mourik and Rotmann, 2013, p. 10).

Despite the acknowledgement in this policy literature of the importance of local networks and trusted advisors for SMEs, recent academic research has criticised the top-down framing of these actors, as discrete and passive 'intermediaries', operating between government and small businesses. Janda and colleagues have argued that this fails to accommodate the complexities of their everyday experiences, motivations and working practices (K. Janda et al., 2014; Parag and Janda, 2014; Killip, 2013). The term 'middle actors' is preferred, as a way of emphasising their independence and refocusing attention onto these stakeholders, who play an increasingly important role in the changing landscape of environmental governance (K. Janda et al., 2014; Turnheim et al., 2018). A number of studies have identified the role played by builders and installers (Killip, 2013; K. Janda et al., 2014; Owen et al., 2014; Wade, 2016)*;* as well as landlords and data providers (K. B. Janda et al., 2014; Janda et al., 2016). However, much of this research deals with middle actors as influencers of energy consumption in domestic buildings, (O'Keeffe et al., 2016), and a need for further research on SME advisors and business network-facilitators has been identified (Parag and Janda, 2014). This research responds to these calls by focusing on low carbon SME advisors as an increasingly important group of environmental practitioners, playing a crucial role in bringing about a transition to a low carbon economy. While addressing them as middle actors rather than intermediaries may be seen as a matter of semantics, the former phrase helps to emphasise their role as distinctive stakeholders.

The importance of networks is supported with strong evidence in literature on SMEs and the environment, which has found that found that firm-to-firm collaboration and peer learning help to foster pro-environmental actions and energy efficiency investment in SMEs (NCBS, 2006; van Kleef and Roome, 2007; Mallaburn, 2016; EEC, 2017; Lawrence et al., 2006). However, there are few examples of autonomous sustainability-focused business networks, pointing to the need for publicly funded middle actors to promote and facilitate exchanges between SMEs

(IEA, 2015; Mallaburn, 2016). In their study of a Knowledge Exchange programme, North and Nurse (2014, p. 39) highlight the role of the publicly funded advisor, finding from their empirical research that 'what the private sector could not replicate alone was the helpful hand-holding that enables a symbiotic, long term relationship between enthusiastic and committed SME owners and knowledgeable business advisers to develop'. Other research corroborates the idea that networks are successful only if a culture of mutual support and learning can be engendered, requiring a range of 'soft skills' on the part of the middle actor (Bruijn and Lulofs, 2001; Parker et al., 2009; Mourik and Rotmann, 2013).

Little has been written in the academic literature about the best strategies for developing effective, supportive relationships between low carbon advisors and SMEs. However, two distinct approaches can be identified from the small number of empirical studies. The first relates to the importance of personal values in guiding action, and the second attends to existing business practices.

Evidence has demonstrated that SMEs are less likely to follow formal decision making protocols such as cost-benefit analysis than larger firms when taking pro-environmental action (Revell and Blackburn, 2004; Spence, 2007; Banks et al., 2012; Mallaburn, 2016). For smaller organisations, the characteristics of owner-managers are likely to be more influential, with pro-environmental decisions such as investment in energy efficiency likely to linked to the values and preferences of individuals (Hammann et al., 2009; Battisti and Perry, 2011; Williams and Schaefer, 2013). Given this, Schaefer and colleagues (2018) suggest that before trying to persuade SME managers of the need to act on climate change, understanding the values and beliefs of individuals is necessary. They adapt Schwartz' (2012) value system to develop a typography of SME managers according to their personal and professional values. Whereas previous literature on pro-environmental values from SME managers have tended to make a binary distinction between self-transcending and self-enhancing values (Florea et al., 2013), Schaefer *et al* point to the wide variety of values which underpin SME approaches to the environment. These include *power* values, where motivations include wealth and efficiency, to *achievement* values, where managers strive for positive, visible outcomes, and *universalism,* where concern for social justice or environmental issues actively motivate individuals. Such contributions towards understanding the values and motivations of SME managers are directly relevant to low carbon SME advisors, whose job it is to engage with a variety of individual business-people. This literature indicates that a key competence for low carbon SME advisors is the ability to engage with business leaders in discussions which go beyond the technical characteristics of energy efficiency investments, to include discussions about organisational values and conversations about the environment. If so, then the character, integrity and competence of business advisors become critical factors for success (Robson and Bennett, 2010).

The second approach emerges from recent usages of practice theory within social scientific research on energy consumption. Authors such as Shove and Gram-Hanssen have helped to shift the focus of research away from the notion of individual behaviour change (Gram-Hanssen, 2010a; Shove and Walker, 2014). With a focus on the practice as the unit of analysis, this theoretical framework has shown how social norms and material infrastructures influence the ways in which energy is consumed, as emissions-producing activities become embedded in everyday activity (Gram-Hanssen, 2010b).

While practice theory has been extensively employed by researchers of energy demand in the domestic setting, few studies have applied it to organisations and working practices (K. Janda et al., 2014; Powells et al., 2015; Hampton, 2017). Hargreaves ethnographic study of 'environment champions' working within a small UK business is one notable exception (Hargreaves, 2011). Shadowing an internal behaviour change project, he uses practice theory to identify the mundane ways in which energy consumption is embedded in everyday working practices. He argues that a practice perspective can help to identify footholds for change, which may be more effective than appealing to individuals' attitudes or values. Hargreaves' study suggests that a close attention paid to everyday business practices in small organisations may be necessary to bring about effective pro-environmental change.

Also employing practice theory to analyse extensive survey and interview data, Powells et al. (2015) identify opportunities for SMEs to engage in smart grid management through demand side response. The authors argue that while the majority of empirical studies address the organisation as a unit, focusing on business practices can help to identify opportunities for demand flexibility. Moving away from the conventional framing of SMEs as an amorphous population of hard-to-reach, inflexible consumers, an attention to practices can help to identify opportunities for their

active involvement in the energy system. Although Hargreaves and Powells et al's studies demonstrate the value of a practice perspective, they also demonstrate the need for extensive qualitative methods in support of their findings. The implications for low carbon advisors are that paying close attention to the mundane ways in which energy is consumed – and could be saved - in organisations requires a commitment of time and attention as well as knowledge of business practices. Additionally, just as values based engagements require middle actors to deploy advanced interpersonal skills, practice-led engagements demand a sensitivity to team dynamics and the often contested role that energy plays in organisations (Hampton, 2017).

Methods

This study draws on qualitative data from semi-structured interviews with 19 low carbon advisors from the south-east, south-west, north-west, midlands, and east of England. 15 were employed by publicly funded organisations, providing expert advice, energy audits and match-funded grants for SMEs. 13 advisors were part-funded by the ERDF. The majority focused on promoting energy efficiency, although other services offered by participants included feasibility assessments and grants for renewable energy; supporting low carbon innovation through knowledge exchange partnerships between SMEs and universities; and attracting SMEs to diversify into the offshore wind supply chain.

Additionally, four respondents were recruited from the private sector to offer alternative perspectives on the use of public funds for supporting low carbon advisors. These were a business park landlord, an energy broker, and two general sustainability advisors. Each had experience of advising SMEs on environmental sustainability, and were familiar with publicly funded business support services, either in previous roles or having assisting clients with grant applications.

Interview participants were recruited through personal and professional networks. The rate of positive responses was very high, with all but one regional support programmes that were approached putting forward at least one advisor for interview. Participants' experience of advising businesses varied significantly. For three interviewees, their current role was their first professional experience of advising SMEs on energy and environmental issues, while two participants each had more than 15 years' experience, including providing reports for central government on the issue. The remaining 14 each had between 3-15 years' experience as low carbon advisors in various roles. Of the 19 interviewees, nine were female.

The author has four years' experience of low carbon business support and holds a current position on an ERDF funded project, advising SMEs. Findings below include insights from a carbon footprinting calculation for a printing firm, and from two workshops hosted for SMEs on the subject of 'green growth' (Blundel et al., 2017).

First-hand experience of advising SMEs allowed discussions with interviewees to flow freely, covering themes including advisors' experiences of working within and alongside the growth-focused business support industry; preferred approaches to engaging SMEs; challenges encountered; the skills required for the job; and reflections on the broader policy context. Interviews were conducted from October 2016 – August 2017, lasted between 30 and 60 minutes and were transcribed verbatim. Transcripts were then compiled using a spreadsheet and coded according to emerging themes. Following Bryman's 'steps in qualitative research', interviews and analyses were conducted concurrently, and advisors continued to be recruited to the study until themes and ideas began to recur, reaching 'theoretical saturation' (Bryman, 2012). The findings presented in the following section are organised according to the major themes which emerged.

Findings

The multi-faceted challenge of engaging SMEs on the environment

Representing 99% of businesses, SMEs are extremely diverse. Defined in the EU as organisations with fewer than 250 employees, they vary in size and structure, occupy a range of building types and use energy for a wide variety of different business practices. Table 1 categorises quotations from interviews with advisors based on different reasons why it is challenging even to *initiate* engagements with SMEs in publicly funded programmes of business support. These reasons emerged from coding of interview transcriptions. As one manager of an energy efficiency grants programme put it: 'it's amazing how difficult it is to give away money' (RD).

Table 1. The challenges of engaging SMEs with energy and environmental projects

Challenges	Interview Quotations
Heterogeneity	• 'SMEs are not a sector. You have to have a *sector* focus, with special things to make small companies think it is relevant to them.' (GM) • 'Who you're dealing with varies with the size of the business, so the drivers change a bit too.' (RD) • 'We created a system to learn what works for businesses, by opportunity type, by sub-sector, by geography, by intervention type. Not everyone is going to have enough potential to save money or carbon or kWh to warrant them having a one-to-one service.' (NS)
Non-strategic character	• 'People are so busy running their day to day business that they can't find time and can't prioritise it.' (NA) • 'SMEs have such a high workload. Whereas larger organisations might have a fleet manager or equivalent, these things are often a bolt-on to somebody's job. Somebody who is already chocka.' (NA) • 'It's not at the top of anybody's list. The environment can always wait another day, whereas that order that you've got to get out for that customer, or that massive issue you've got with that set of employees, or whatever. They'll always shout louder and be more in someone's comfort zone, and more understood in terms of the risks of inaction and the benefits of action.' (NS)
Defensiveness	• 'You do get people who say 'oh yes, it's fully insulated' because they just want to tell you it is. They are a bit protective, and want to think 'I'm doing everything I can.'' (OR) • 'People always think it's a solution for somebody else. It's for other people. 'I'm not part of the problem''. (SL)
Unclear responsibility	• 'It's nobody's job…. if you're speaking to the MD they don't really know much because it's the finance girls who pay the bills. And the finance girls have no idea what a kWh is or whether the bill is right or wrong, and they probably haven't been doing the readings because that might be a caretaker or facilities guy.' (OR) • 'It's trying to explain to a number of different laymen from various different backgrounds, who maybe aren't the people who make the decision in the first place. Speaking to admin assistants about the programme isn't really the best use of our time! They'll write something down saying: 'Someone from the council rang up'. And then someone says: 'Oh if they're from the council I'm not going to ring them back because they probably want something.' (OR)
Lack of awareness, knowledge and interest	• 'The problem is actually getting businesses on board, because a lot of them don't even know what renewables are.' (GD) • 'A lot of businesses seem to think that it's some sort of scam or catch.' (GD) • 'A company would ideally like a case study of a company *next door to it*, that did *the same thing* but *wasn't a competitor*!' (GM) • 'It's not the kind of thing that is at the top of business's list. So a flyer or a poster, or social media - the sort of stuff that works for more traditional business support, is much harder to deliver here.' (NS)

Given the challenges of engaging SMEs with support programmes, marketing techniques and salesmanship were considered crucial for low carbon advisors:

> 'You've got to sell the concept, and you've got to sell the funding - despite the paperwork. Adding the CSR element to it tends to help with the larger businesses. For the smaller businesses it's about how much time they're saving.' (OR)

> 'I used to tell people they had to get their application in by Friday to stand a chance of them getting the grant. Whereas actually they had at least 6 months! It's just applying universal sales techniques.' (JC)

The sales aspect of the role was a source of frustration for some advisors. Most interviewees had been trained in environmental science and policy, and some had not considered the importance of sales skills when taking the job:

> 'There is too much sales in this job I'm afraid.' (OR)

> 'A lot of our officers had come in wanting to work for a charity and didn't have that sales head on. What they would call cold calling: trying to make those initial contacts with businesses. They found it difficult and were sometimes reluctant to do it. Eventually we employed a telemarketer to set up appointments for project officers and then that was a complete turnaround.' (SL)

When describing the language and marketing approaches used in promoting their low carbon projects, *all* respondents described financial savings as being their primary message.

> 'It's pretty basic really - we go on the pound sign. That's how we sell these programmes to businesses. We've come across it time and time again: when we rock up with a clipboard and say we're from the County Council, the shutters come down.' (SC)

> 'You have to make a business case. Whether that's short term or whether that's a strategic business case, you have to sell it in those terms.' (JC)

All the low carbon advisors interviewed for this paper described strong environmental motivations and a passion for sustainable business. However, most advisors suppressed these personal values when engaging with SMEs, expressing scepticism about 'green' messages being effective for motivating their target audience:

> 'We weren't saying: 'you're going to save the planet. People are going to love you'. No. It was about making sense to the business, saying 'you'd be stupid not to do this, because it's going to save you money, help with staff retention, with productivity.' (NA)

> 'Every time I speak to businesses I tell them they can save money, that's the main focus. I know the business is not going to be that interested in being green. Even though they should, it's just one of those things.' (GD)

> "We're looking to imbue the project with our ethics, in everything we do. But there is a sensitivity with respect to marketing, because you're approaching a market which is not necessarily aware or wants to know about reducing their carbon footprints." (BA)

These findings indicate that engaging SMEs with low carbon projects, even where grants and free advice are available, is a significant challenge, requiring targeted marketing approaches and salesmanship. When attempting to make their communications salient for SMEs, this sample of low carbon advisors emphasised cost savings and down-played environmental messages. They assumed that appealing to SMEs' values and sense of responsibility would be ineffective. The next section describes how, after SMEs are engaged with a project, delivering cost and emissions savings presents another set of challenges for low carbon advisors.

'IT'S THE SOFT STUFF THAT'S HARD'

Once the difficult task of engaging an SME in has been achieved, low carbon advisors face a set of new challenges in delivering emissions reductions. This section describes three challenges emerging from interviews: (1) a wide variety of pro-environmental options are available; (2) evaluating these and measuring impact can be a complex undertaking; and (3)

providing tailored, sustained support to SMEs is expensive, time consuming and requires a range of competences.

SMEs can reduce their environmental impact in myriad ways. Replacing lighting, insulating buildings, recycling waste, reducing staff energy use and procuring green supplies are just some of the options available. Evaluating the costs and benefits of each option and measuring their impact requires a level of expertise and investment of time which can detract from the positive intention to take pro-environmental action.

One example of this complexity is illustrated by advice provided by the author of this paper, working with a self-employed advisor to conduct a carbon footprint assessment for a small printing firm. The SME wished to buy carbon offsets equivalent to their operational emissions. From the printer's perspective, becoming 'carbon neutral' was a simple objective: having already signed up to a green electricity tariff and procuring 100% recycled paper, they wished to celebrate their environmental credentials. However, the footprint assessment and offset calculation was far from simple. It is a matter for debate whether purchasing green electricity through a retail tariff can qualify as carbon neutral. The two advisors consulted guidelines, and exchanged with the SME's green electricity supplier and a third advisor, with no consensus reached on the appropriate methodology.

Further issues arose when the advisors explained to the SME that the carbon benefits of procuring sustainable paper could only be accounted for either at the beginning or end of the product life cycle. This meant the printer could account for *either* the benefits of purchasing from recycled sources, *or* their customers' recycling activities, but not both. Interpreting comprehensive global standards for environmental reporting - whose main subscribers are large corporations – was a challenge for *three* advisors working together, and unsurprisingly led to confusion and frustration from the SME perspective (for a sense of the complexity, see World Resources Institute, 2015 and; Carbon Trust, 2015).

Full organisational carbon footprints were rarely carried out by the advisors interviewed for this study however, and the majority of advisors worked on projects which provided SMEs with environmental or energy assessments and tailored recommendations reports. While acknowledging that collecting energy consumption data, on-site visits and producing comprehensive reports were expensive and time-consuming undertakings, most advisors defended the value of these interventions:

> 'A business might come to us saying we want some new LED lighting, but actually we've found measures such as installing variable speed drives which would cost a fraction of the lighting but would save significantly more money and carbon.' (RD)

> 'We spoke to a firm who just wanted their lights doing, but from speaking a little bit it turned out they do quite a lot of overnight work with their machinery. The compressor was being left on for 8 hours while it wasn't being used. So instead we helped them buy a remote dead-man's switch system.' (OR)

These examples illustrate the value that an experienced advisor can offer in directing efforts and optimising investments. However, most face-to-face visits undertaken by advisors are focused primarily on building characteristics, the technical potential of energy efficiency and payback calculations. Advisors rarely focused their interactions on understanding how energy was consumed and managed in the course of everyday working practices, nor the processes of decision-making unique to the firm. One experienced advisor said:

> 'I've seen 10 billion projects start and fail because all they do is go in and do an audit, write a report, leave a report, walk away. Nothing happens and I get absolutely infuriated because it is *not just information failure*, it's a wider, more complex *market* failure.' (NS)

Most interviewees were aware of these dangers, and agreed with the need to accompany SMEs on a journey from initial engagement through to measurable emissions savings. On the one hand, funding and governance structures appear to be in place to enable the end-to-end support of SMEs. However, on the other, delivering in-depth support appears to be challenging for low carbon advisors, one of whom said: 'it's the soft stuff that's hard'. Interviewees described a set of skills required when attempting to engage businesses in discussions beyond initial assessments and audits, including the need for 'tact', and to 'establish trust and credibility':

> ‘You need to ask what the SME wants and learn from them, not just talk to them like they’re school children.’ (NI)

> ‘You actually find you can get better savings and impacts by asking a little three-year old's questions: *'why* do you do it this way; *how* do you do it?'' (OR)

> ‘What works is putting an experienced advisor face-to-face with a client, so that the message can be tailored specifically. What works is a *conversation*.’ (NS)

These quotations indicate an awareness amongst advisors that paying close attention to mundane business practices can help to identify opportunities for reducing energy consumption or environmental impact. Despite the apparent simplicity of the approaches described, asking basic questions requires confidence, gained through experience. Two senior project managers emphasised that finding and recruiting advisors with extensive business knowledge, management experience and the persuasiveness of a skilled salesman is a significant challenge:

> ‘We needed staff who could do the project management and the delivery side of things, working with the businesses. Its two different skillsets together. It’s very rare to find someone who’s got both of them.’ (SC)

> ‘Securing that agreement to start a journey, to go and have a look at a business and to identify things that are *not* going well, and things that could be improved, is a *delicate* process to go through. You need advisors who can influence and who can manage change.’ (NS)

BEYOND THE ‘WIN-WIN’: DEVELOPING MEANINGFUL ENGAGEMENTS

Despite the dominance of technical and cost-saving approaches and ‘win-win’ marketing narratives, several advisors told stories of SMEs investing in technologies where payback periods were only a minor consideration:

> ‘That LEDs look nice is a big factor in people's decisions. People like them. The payback period for LED panels might be 4 or 5 years, which is actually quite long. But people see them and think 'oh I want some of them'. (WR)

> ‘A lot of them are keen on this environmental stuff. Some businesses you’ll visit and see they've done lots of little projects for no apparent business or financial reason, just because they know it’s the right thing to do.’ (WR)

This finding was corroborated in a workshop hosted as part of this research, where an SME owner-manager explained how cost failed to capture the full range of motivations for their pro-environmental actions:

> ‘We decided we would invest in renewable technology because if nobody ever did it then there would be no research, no economic drive to develop that technology. So it was a loss leader. No, not a loss leader. It was a loss. But we decided we would make that sacrifice. Solar panels, wood-chip boiler. Not an easy ride. But we decided because we were in a position where we can do a little bit, we would put something into the system for future generations.’

With evidence of SMEs diverging from the principles of rational economic decision-making, advisors felt that developing personal connections with SME owner-managers should be a priority. However, only a small number of interviewees described cases in which they had managed to discuss the *meanings* sustainability or the *purpose* of energy in the context of organisational culture and everyday business practices.

One advisor worked on a project which hosted workshops for SMEs on different aspects of sustainable business, ranging from energy efficiency to the benefits of active travel for the environment and staff wellbeing. This advisor was wary of the tendency within environmental advocacy to over-emphasise the benefits of pro-environmental action without acknowledging its costs. Sceptical of the effectiveness of presenting a series of successful case studies, she emphasised the importance of *learning stories* (Janda and Topouzi, 2015):

> ‘It wasn’t just 'sustainability is wonderful, it’s a great thing to do (if you have endless money and time!)'. It was: 'the reality is we had to slug away, but you can learn from our experience and not have to repeat the same thing.’ (NA)

Despite possessing strong environmental values themselves, advisors felt that it was more challenging to engage SMEs when the focus of the discussion was on organisational culture and values, as opposed to technical assessments. One advisor said: ‘it’s really hard to talk to someone about that softer side if that’s not what you're there for’. This finding suggests that the framing of initial engagements with SMEs then influences the nature and scope of the conversations when visits are carried out. The ubiquity of cost-based, technology focused marketing approaches makes it difficult for advisors to turn discussions towards values and corporate responsibility. However, the same advisor indicated that while conducting an energy audit, he could gauge whether the SME could be recruited to a sister project. Guiding a cohort of SMEs through bronze, silver and gold awards for environmental management, he referred to this ‘warm audience’ as being more amenable to more abstract questions. ‘Asking open questions and taking the blinkers off a little bit’, allowed advisors to ‘tease’ the SME into the programme, and from there ‘the key is getting it from awareness, through to action, to advocacy’ (OR).

In attempting to develop deeper relationships with SMEs, another advisor attempted to incorporate energy and carbon savings as part of providing broader business support. This included identifying the co-benefits of pro-environmental action. Their project included helping SMEs to increase wellbeing amongst their staff, which they delivered alongside advice on energy efficiency, transport and procurement:

> ‘Organisations do think holistically; they don’t just think 'I’m going to work on my transport now'. A number of people said it was the wellbeing thing that brought them in.’ (NA)

This advisor emphasised how the wellbeing agenda helped to establish a lively and supportive culture amongst businesses signed up to the project; helping to move away from a ‘vision of sustainability which has become ‘thou shalt not do this’’. Ambitiously, the same advisor also ran a workshop which posed some fundamental questions to SME owner-managers: ‘why did you start, what were your initial values, and how are you aligning those with how you're financing your organisation and your procurement.’ Reflecting on this, she said:

> ‘We were trying to line up people's values with business. Why do they go into business? Usually they're individual people or a family who are really passionate about something and they start a company. But then often their values drop away over time because of the demands of business. They might want to grow, and they might ‘sell out’. There are lots of challenges around that… it was a tough workshop. You could tell how challenging it was for people because their morals were saying 'what I’m doing is at odds with why I started the company, or my personal values, but I see no other way of negotiating the system.’ (NA)

This quotation indicates that in the view of this advisor, balancing business growth and personal values can cause tensions for SME owner-managers. This raises questions over the effectiveness of integrating low carbon support into conventional provision of growth-oriented business support. The next section presents findings on this policy context.

REFLECTIONS ON BUSINESS SUPPORT POLICY AND THE LOW CARBON AGENDA

Most publicly funded SME low carbon advisors in the UK are funded by the European Regional Development Fund, and their roles are heavily influenced by the broader policy context associated with its strategic objectives, rules and governance structures.

In ERDF jargon, providing low carbon support to businesses is one of nine ‘Priority Axes’, which together aim to ‘support economic growth and job creation in order to reduce… regional economic disparities within the EU’ (DCLG, 2015). Economic development narratives pervade the governance and design of low carbon SME initiatives (Britton and Woodman, 2014), which for several low carbon advisors, was a complementary combination:

> ‘They go hand in hand. Every pound you save on energy you can use on something else, which grows the business. Helping people with that

initial capital outlay is really good for growth.' (JC)

'Our LEP is all about jobs and growth. Those are their priorities. We've seen an opportunity with the low carbon sector, where if we grow that sector, we are going to get jobs and of course growth.' (SC)

Other advisors identified problems with the integration of low carbon goals into a system primarily set up to deliver economic growth, These include skewing the reach and impact of low carbon projects; and being tasked with delivering inappropriate outcomes:

'There is a lot to be said for getting growing companies interested because they may become the next big ones and they will be trend setters. But a lot of companies don't have any wish to grow. Local shops for example. Those are the ones who are neglected by policy.' (GM)

'It's job-creation obsessed. But we are not a programme which is primarily about driving job creation! We *have* actually created and safeguarded loads of jobs on the back of what we do, but that's when we're allowed to look at the risk side of things.' (NS)

Despite a UK government report in 2006 recommending an increase in awareness of environmental and sustainability issues across all organisations engaging with SMEs (DEFRA, 2006), it is clear more than a decade later that a lack of familiarity persisted amongst funders, business support organisations and other generalist advisors:

'[Previously] working with [business support] organisations... they always said sustainability or environment was a golden thread through everything they did. Like hell it was! They didn't know the first thing about it! (GM)

'We [advisors] take [sustainability principles] for granted, but sometimes you have to be very basic about how you go about explaining things with funders. It's a constant struggle in all honesty.' (SC)

'We're reliant on all the different advisors who sit in front of a business, for example the economic development officers in the district, or a mental health team. In theory our offer is the same around the region. It should be easy. But what does differ is on the local scale, who is around to deliver that offer, who is around to support'. (OR)

DISCUSSION:

Nearly 15 years ago, Revell and Rutherfoord argued:

'Little has been written about the structural factors that influence small firm environmental practices. The environmental performance of small businesses cannot be solely attributed to characteristics inherent within them; it is also related to the way in which societies influence and engage with business – and the way in which business is incorporated into the environmental policy agenda'. (2003)

Since then, societal expectations of small firms have gradually shifted. Increases in the UK national minimum wage have far outstripped inflation, and minimum pensions contributions have been introduced for all employing businesses. SMEs' environmental responsibilities remain low however. Incentive-based programmes of support are favoured over environmental regulation or taxation, meaning that low carbon advisors play a central role in the way that SMEs engage with the environmental agenda.

LIMITS TO THE GROWTH PARADIGM

Low carbon projects in the UK are typically integrated into conventional models of business support, set up primarily to support SMEs to grow, export and create jobs. Consequently, the reach of advisors is skewed towards well-networked, growth oriented SMEs (Open University, 2013), and their principal strategy for promoting projects is on cost grounds. There are several drawbacks of these approaches.

Firstly, it is inevitable that low carbon projects cannot reach all SMEs in a geographical area given the heterogeneity of the business population and limited resources. For cost-effective emissions reductions, projects would ideally target SMEs based on energy usage and its over-consumption, rather than organisations' growth plans or ability to network. A large

proportion of SMEs have business models which prioritise stability over growth, and these have been intentionally neglected by business support initiatives in the past (Blackburn, 2012). However, it is possible that long-established, family-run businesses are more likely to own and occupy older buildings with significant energy efficiency potential. This hypothesis warrants empirical testing, and emphasises the need for improved data on SME energy consumption (Hampton and Fawcett, 2017).

Second, the energy efficiency 'paradox' describes how the financial case for making energy efficiency investments is often compelling without the need for public subsidy, and yet opportunities are under-exploited by SMEs. Public investment in low carbon support for SMEs is justified on the basis of market failure, and the recognition that rational economic assessments are insufficient to motivate action. Given this policy context, it is ironic that all the low carbon advisors in this study promote their projects to SMEs on cost grounds above all else. This may be seen as another kind of paradox, cutting against the overarching logic for policy intervention.

Thirdly, the majority of low carbon projects offer match-funded grants to SMEs to encourage making new purchases, despite 37% of all energy efficiency opportunities requiring zero capital investment (DECC, 2014). In some cases, replacing functioning equipment with newer, more efficient models may not deliver significant carbon emissions savings. For instance, replacing an aging condensing boiler may deliver marginal efficiency gains which are partially offset by its embodied carbon footprint, and 'lock-in' the organisation over the longer-tem to fossil-fuelled heating.

Fourthly, embedding low carbon projects in growth-focused funding regimes can lead to inappropriate and distracting targets being set. Net job growth, numbers of businesses awarded grants, and gross-value added are the principle measures by which projects funded by the ERDF are assessed, and the methodologies and reporting requirements are specified in policy documentation in detail. By contrast, there is just a single target relevant for low carbon initiatives: 'estimated GHG emissions'. Advisors are left free to design their own methodologies for this, which are only loosely audited (Hampton, 2016).

Finally, the dominance of the cost-saving, minimum hassle narrative adopted by low carbon projects can *preclude* other approaches. Reaching out to SMEs using cost saving and technology focused marketing messages can make it difficult for advisors to pivot their approach and tackle what one advisor called 'the softer stuff'. This includes paying attention to *how* and *why* energy is used by the client organisation, as well as raising deeper, searching questions relating to organisational values and appealing to individual owner-managers' sense of responsibility in order to foster pro-environmental action.

OPPORTUNITIES FOR A NEW CULTURE OF ADVICE-GIVING

Seeking to reduce carbon emissions from SMEs, funders, project managers and low-carbon advisors favour face-to-face meetings, the provision of workshops and on-site energy audits, despite the high costs associated with these approaches. The majority of interactions between advisors and SMEs are *technical,* focused on buildings, payback assessments and the identification of 'quick-wins'. Although significant energy and emissions savings can be made from upgrading technology and improving the energy performance of buildings, more could be made of face-to-face meetings. Firstly, these unique engagements could be more effectively exploited to engage owner-managers in more meaningful and far-reaching conversations about personal and organisational values. These include attitudes towards corporate responsibility as a whole; their organisation's founding principles and values, and its long term role in an environmentally sustainable society.

Findings from interviews and participant observation demonstrated that advisors themselves had strong environmental motivations, and recognised that where they are able to develop personal relationships, SME pro-environmental action is likely to be sustained in the longer term. However, engaging businesses in values-based discussions was a significant challenge, requiring advisors to have a range of skills in order to establish trust and buy-in from SMEs, which can take time. As one advisor suggested, technically focused energy assessments and the prospect of financial support may be effective in initiating relationships with SMEs; the next stage is to recruit businesses to join low-carbon networks and start the journey from *awareness*, to *action*, to *advocacy*. Typographies of SME managers' values, such as in Schaefer *et al.* (2018), could be instrumental in supporting advisors to target their approaches.

A second opportunity to enhance the effectiveness of face-to-face meetings is by following the examples of Hargreaves (2011) and Powells *et al.* (2015) in paying close attention to the mundane ways in which energy was consumed in the course of everyday business practices. As Hargreaves demonstrates, paying close attention to the meanings, materials and competences of practices can be an effective way of identifying opportunities for behaviour change and emissions reductions in businesses (2011). For the low carbon advisor, such approaches would involve seeking to understand how energy is managed on a day to day basis by an SME, its geographical and market context, and the priorities of, and pressures faced by its Directors. In practice, this approach may not be as difficult as it appears. As one advisor suggested, 'you actually find you can get better savings and impacts by asking a little three-year old's questions: '*why* do you do it this way; *how* do you do it?''. With ample funding already in place across the EU for face-to-face visits, these approaches warrant practical experimentation from publicly funded advisors.

Academic researchers also have a role to play in developing a new culture of advice-giving. Andrews and Johnson (2016) have recently pointed to a significant gap in social scientific research relating to energy use in organisations. This is especially true for SMEs, where more qualitative studies are needed to support low carbon advisors on the 'softer' side of their role. Further studies in the mould of Hargreaves' 2011 ethnography would help to demonstrate the value of attending to everyday businesses practices, from which opportunities for energy and emissions savings can emerge. Improved understanding of how energy is used and managed by SMEs, how decisions are made, and what motivates owner-managers towards pro-environmental action will help low carbon advisors to be more effective in facilitating change.

Conclusion

Reducing carbon emissions from the SME population is a significant challenge, and it is widely acknowledged that the private sector market for low carbon goods and services will not deliver reductions in line with the targets set under the Paris Agreement. The need to effectively tackle climate change is challenging extant models of environmental governance, and new stakeholders are emerging at multiple-levels. Across the developed world, public money is invested in specialist advisors, who offer low carbon support to SMEs through energy audits, face-to-face meetings and by recommending efficiency investments. Part of a shifting model of environment governance, this community of practitioners is playing an increasingly important role in the transition towards a low carbon economy.

Contributing to a growing literature concerned with new styles of environmental governance and emerging stakeholders, this paper has addressed a gap relating to the role of low carbon advisors. It is the first study to provide in-depth insights into their practices and experiences, giving voice to these critical middle actors. Findings have shown that advisors face myriad challenges: in engaging SMEs with low carbon projects; identifying and evaluating a wide variety of pro-environmental actions; bringing about lasting change in organisational practices and culture; and working within the context of conventional business support policy.

The current approach of low carbon advisors when engaging with SMEs is to focus on buildings, technologies, payback periods, and to assist with the purchase of new equipment. However, framing pro-environmental actions as 'win-win' and 'no brainer' opportunities serves to *side-line alternative* engagements. These include more in-depth conversations about organisational culture, corporate responsibility, values, risk, and understanding what energy is used *for*. As social scientific energy research has shown, understanding energy demand in the context of everyday practices is a pre-requisite for lasting change.

Funding advisors to support SMEs through face-to-face meetings and ongoing specialist advice is an expensive policy option, and this paper has suggested that for more meaningful and effective engagements, a change in the culture of low carbon advice-giving is required. Cost-saving, technical narratives may be successful in engaging SMEs initially; thereafter, advisors have a challenging task of combining their technical skills with softer, inquisitive and persuasive competences, with a view to starting SMEs on a journey towards reduced environmental impact. However, findings from interviews suggested the breadth of skills required for such wide ranging, yet in-depth, engagements is unlikely to be found in any one advisor. This presents a recruitment challenge for programme-managers, and raises wider questions relating to the skills required to deliver the low carbon transition.

The policy context within which low carbon advisors operate poses many challenges. Low levels of environmental competence amongst policy stakeholders; misaligned targets; artificially compartmentalised funding rules; short timescales for funding; and the frequent restructuring of business support governance each hamper advisors' capacity to deliver low carbon objectives. Given the scale of SMEs' environmental impact and the preference for incentive-based policy over regulation and taxation, low carbon advisors are shouldered with enormous responsibilities. Despite the best efforts of talented and widely-skilled individuals, the current provision of low carbon business support in the UK is unlikely to deliver emissions savings in line with national decarbonisation targets. These middle actors deserve to be supported by people-centred policy with a broader scope than the growth-oriented model of conventional business support. By providing an in-depth account of their practices, this paper has provided the foundations for more research, debate and policy development.

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