Crisis and opportunity: transforming climate governance for SMEs

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Crisis and opportunity: Transforming climate governance for SMEs

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ABSTRACT

Small and medium-sized enterprises (SMEs) are key actors in climate change mitigation and adaptation. Their aggregate emissions are significant, and they are disproportionately affected by climate impacts, including extreme weather events. SMEs also play a vital role in shaping the environmental behaviours of individuals, communities, and other businesses. However, these organisations have been largely neglected by climate policies across all levels of government. A series of global crises, including the COVID-19 pandemic, war in Europe and the Middle East, and energy price spikes, have posed an existential threat to millions of SMEs, while also acting as a catalyst for the reconfiguration of the social contract between business, society and the state, both temporary and more long-term. In this article, we make the case for increased focus on the governance of SME decarbonisation to address this turbulent context. We outline key challenges facing public policymakers and other governance actors, compare strategic options, identify evidence gaps that hinder effective interventions, and highlight implications for research. In doing so we set out key elements of a renewed social contract for business, society and state relations.

1. Introduction

SMEs are an essential part of global climate action. They contribute 13% of the world's carbon emissions (IEA, 2015), and consume 50% of its commercial and industrial energy (OECD, 2021). Numbering around 400 million globally, SMEs are vital in shaping behaviours of individuals, communities, and other businesses. However, they have been largely neglected in national and regional policy-making, both in developed and developing economies (Fawcett and Hampton, 2020; Shaper, 2022). Despite isolated 'best practice' examples (Andrews and Johnson, 2016), there has been little progress in scaling SME climate action and levels of engagement remain extremely low (Energy Saving Trust et al., 2022).

Here, we argue that governance of SME decarbonisation must play a more prominent role in climate policy. Extreme weather and other global crises, notably the COVID-19 pandemic and energy price crisis, have posed an existential threat to many SMEs globally. Governmental responses to these crises have contributed to growing political consensus on the need for large-scale interventions to protect the most vulnerable business sectors and impose constraints on commercial activity in some situations. There has also been increasing recognition of the role that SMEs play in climate change mitigation and adaptation. In this changing context, it is important to understand how existing governance arrangements help and hinder SME decarbonisation, and what changes are needed to accelerate emissions reduction. Here, we define governance as those arrangements which purposely seek to shape societal activity over different spatial jurisdictions, including the conditions for doing business. These include: conventional activities of government institutions e.g. regulation, tax and fiscal policies; the ways governments set discursive agendas for action; and less formal support infrastructures that (for SMEs) tend to be delivered through sector bodies or local organisations. There is also a need to better understand processes of 'metagovernance', or the 'governance of governance', for SME decarbonisation: this includes setting strategic agendas, configurations of different institutions, and managing relations between different modes of coordination and interventions (Jessop, 2004). We argue that SME decarbonisation policy has been hampered by a lack of robust research evidence regarding governance, due to a wider neglect of SMEs in climate-related policy-making, and because the topic spans academic disciplines and theoretical approaches.

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We begin by outlining key policy challenges, before setting this within the current context of turbulence and change in the social contract between business, state and society. We then discuss what this means for how we understand the role of SME governance for Net Zero. We conclude by calling for greater coordination amongst the research community to better support the governance of SME decarbonisation and set out a new agenda that places SMEs at the heart of the transition.

2. Setting out the policy challenge

SMEs are excluded from many business-focused energy and decarbonisation policies in both developed and emerging economies (Fawcett and Hampton, 2020; Jamali et al., 2017). They are neglected by most climate policies due to their smaller carbon footprints, heterogeneity, more limited resources, and reduced regulatory compliance in comparison to larger corporations (Fawcett and Hampton, 2020; Energy Saving Trust et al., 2022). For instance, Article 8 of the EU's Energy Efficiency Directive obliges large firms to conduct regular energy audits, but excludes SMEs due to the perception of disproportionate cost and administrative burden (Nabitz and Hirzel, 2019). Yet this means they also miss out on the opportunities for energy savings associated with regulatory compliance (Zheng et al., 2021).

In contextualising the policy challenge, it is important to address the inherent heterogeneity of SMEs by disaggregating firms and sectors based on key variables, such as the energy intensity of their activities and their capacity to mitigate (Scope 1, 2 and 3) carbon emissions. It is also helpful to distinguish between the different roles SMEs play, both as *consumers* of energy and resources, and as *influencers* amongst their communities (Table 1 provides a simplified overview).

Where climate policies exist, they conventionally focus on SMEs' activities as consumers and enablers. Incentives such as grants, subsidised loans or free audits typically encourage investment in energy efficiency installations and on-site renewables, while SMEs developing environmental products and services (*enablers)* in some regions can also benefit from R&D funding and tax-breaks (Parker et al., 2009). Support programmes are usually organised and delivered at a local level involving local and regional government. Unfortunately, incentive-based interventions are often small-scale, piecemeal and poorly evaluated, even in developed countries where there is a long history of business support (Oguntoye and Quartey, 2020; OECD, 2021; Blundel and Hampton, 2021). Until recently, policymakers have not sought to leverage SMEs' roles as *influencers* for climate action. This is beginning to change however, as exemplified by the UN's 'Race to Zero' campaign and the international SME Climate Hub, which encourage SMEs to make public emissions reduction pledges.

As governments set ambitious Net Zero targets across their economies, there is a need to expand and strengthen climate policy by broadening incentive-based initiatives and exploring the potential for more *hard levers* such as regulation. This raises a series of new questions: what is the balance of responsibility, between SMEs themselves, industry and sector partnerships, and government? Which forms of regulation can be implemented without placing unfair burdens on SMEs? Which actors should provide support, ensure compliance, regulate markets, and evaluate interventions? To what extent should decarbonisation policy for SMEs be locally devolved, nationally led, and internationally coordinated? How can SMEs be supported to become more active climate *influencers*?

In summary, there is a need for transformation in the practices, attitudes and responsibilities of SMEs with regards climate change, which must be encouraged and facilitated by effective modes of governance. The next section explains how the foundations for change are being laid by the changing relationship between SMEs, state and society.

3. Contextualising the challenge – Turbulence and change in the social contract for business

Social contract theory (SCT) has a long history in philosophy, beginning in Greek antiquity, and developed by Hobbes (2008 [1651]), Locke (2016 [1689]), Rousseau (1998 [1762]), and Rawls (1999 [1971]). Developing the notion of the social contract for business (SCB), Donaldson (1982) distinguishes between *direct* obligations with which businesses must comply (laws, regulations, contracts); and *indirect* obligations which include contributing towards social welfare, economic and political stability, and environmental protections. It is argued that the terms of the social contract between business and society are more clear cut in the Global North, where social security, pensions, worker rights and environmental responsibilities tend to be more established and formalised (Omran and Ramdhony, 2015). As such, SCT has been a

Table 1
SME roles for climate action.

SME Role	Activities	Examples	Changes required for net zero	Conventional policies and interventions (climate and energy)
Consumers 	• Using energy for space heating, lighting, transport and operations (Scope 1 & 2 emissions) • Procuring and using material resources and services (Scope 3)	• Energy intensive firms: metalworks, bakeries, breweries • Resource intensive firms: builders, restaurants, farming	• Accelerate emissions reduction planning and monitoring, modify products and practices, install cleaner technologies	• Exempted from most environmental taxes and regulation • Incentives: financial, expert support, often locally organised
Influencers 	• Supplying goods and services to customers • Procuring inputs • Membership of business networks and communities • Employers • Lobbyists	• Advisors (e.g. accountants, energy consultants) • Informal guides (e.g. hairdressers, food retailers)	• Advocate for decarbonisation and other sustainability practices (e.g. emissions disclosure, standards and accreditation)	• Not a focus for government policy • Initiatives often initiated by industry sector and professional associations
Enablers 	• Providers of zero carbon solutions: technologies, products, services	• Heating engineers, PV installers, architects, landlords, surveyors, charities and social enterprises	• Develop and expand product and service provision	• R&D funding for eco-innovation • Subsidies for selected technologies

popular analytical framework in empirical studies of corporate social responsibility (CSR) in large corporations headquartered in developed countries (Mäkelä and Näsi, 2010; Sacconi, 2012; Waddock, 2010). The approach has also gained favour outside academia, including advisory firms (Jaggi, 2020; McKinsey Global Institute, 2020) and NGOs (World Economic Forum, 2022).

Compared with larger corporations, SME social contracts are relatively more local, direct, and personal in nature (Fuller and Tian, 2006; Lynch-Wood and Williamson, 2014; Filek, 2015; Karam and Jamali, 2017). While this helps explain the relative lack of scholarly attention, the nature and impact of their obligations are no less significant. For example, Donaldson and Dunfee (1994) argue that the 'micro-social' contracts between SMEs and their staff, customers, and wider communities underpin the wider normative social contract.

In the Global North, the social contract between SMEs, state and society is in the process of transformation. Since the financial crisis of 2008, several trends have been straining the bonds of the SCB. Persistent income inequality, insecure contracts, less generous pensions, gender and racial injustice, and the growing cost of healthcare and education are shifting responsibility for economic, social – and even environmental – outcomes towards the individual (McKinsey Global Institute, 2020; World Economic Forum, 2022). In the early 2020s this turbulence has been compounded by several factors. COVID-19 saw unprecedented disruption to everyday life, consumption habits and business activity. The impacts on SMEs were uneven, depending on location, national and local government policies, and sector. Despite generous state subsidies, millions were forced out of business, with those in manufacturing, hospitality, tourism, and agriculture amongst those worst affected (Zutshi et al., 2021). In 2022, the Russian invasion of Ukraine precipitated supply chain disruption and an energy price crisis which has posed an existential threat to millions of SMEs in Europe and beyond. Added to this, more frequent extreme weather events such as the devastating floods in Pakistan and the European heatwave in 2022, are increasing risks and costs for millions of firms.

The transformation underway in the SCB stretches beyond environmental responsibilities, but this article focuses on these. International surveys find high levels of concern amongst publics for climate change, and strong support for businesses to *do more* – in general terms – to respond through their own business practices and operations (CAST, 2021; Marlon et al., 2022; WRAP, 2021). For instance, there are a growing number of movements and initiatives calling on businesses to reduce the use of impactful resources such as plastics and palm-oil, to monitor and disclose their emissions, and to increase the range of green products and services available to consumers, such as through green accreditations (Behavioural Insights Team, 2023). Against the background of COVID and energy-related bailouts, such calls have profound moral weight.

In response, SMEs are increasingly setting environmental targets and making Net Zero pledges (SME Climate Hub, n.d.), utilising the growing body of resources and support provided not just by government agencies, but banks (Bank of Scotland, 2021; Net-Zero Banking Alliance, 2022) and industry bodies (EnergyAction Australia, 2022; Make UK, 2021). Whereas support for climate action has historically been the domain of government (Johansson et al., 2020), a shift is underway towards greater private sector provision of solutions including energy efficiency measures, renewable energy installations and electric vehicle infrastructure. Propelled by the rising cost of energy, novel finance mechanisms (Bankers for Net Zero, 2023) and energy-as-a-service business models (Pätäri et al., 2016) are emerging.

In the context of turbulence and transformation in the SCB, there is a need to re-evaluate governance activity across multiple spatial scales and industrial sectors. How should the systems of support for SMEs be modified to accelerate the transition to Net Zero?

4. Governance in a changing context

Amidst the changing relationship between SMEs and the state, there is a need for more flexible, mission-oriented governance arrangements (Mazzucato, 2022). This means not only focusing on market failures, but also on "market co-creating and market shaping" (ibid. p.804), and involves: (1) coordination between public and private sector initiatives; (2) activity across multiple-scales from the local to the supranational; (3) identifying and filling gaps in support provision; and (4) investing in SMEs as *enablers*. In line with a revised social contract for SMEs, such interventions would help re-orientate business practices and policy towards understanding how economic activity serves societal needs. Further, this implies the need to engage with different SME subjectivities, shaping how SMEs understand their role. It also demands metagovernance strategies which redesign markets, set new discursive agendas, conditionalities and reconfigure existing multi-level governance institutions to achieve mission-oriented goals (Mazzucato, 2022). This section outlines these priorities, and the following discussion highlights the role of the research community in transforming governance activity.

Firstly, increased private sector action, partly driven by the financial case for energy saving investments, has implications for the future role of governments in SME decarbonisation. As industry bodies produce guidance and offer support to SMEs, and the market for emissions reduction solutions grows, governments will likely reduce direct provision and fiscal support for these types of activities hitherto justified based on market failures (OECD, 2021). However, evidence shows that even where the business case is compelling and where information and support is available, SMEs often do not capitalise on energy saving opportunities (Bukarica and Tomšić, 2017). Barriers to uptake are well-documented in the literature. Internal factors include corporate ownership and management structures (Henriques and Catarino, 2016), organisational culture (Isensee et al., 2020), the psychological characteristics of decision-makers (Schaefer et al., 2020), and staff demographics (Segarra-Blasco and Jove-Llopis, 2019). External barriers include access to capital (Andrews and Johnson, 2016), lack of trusted intermediaries (Hampton, 2018), and the principal-agent problem with regards building tenancy (Janda, 2014).

Governing institutions therefore have a critical role to play in supporting and driving action by setting targets, governing, and regulating markets. We concur with Mazzucato, who cites the changing SCB as an opportunity for governments to reconfigure the *'conditionalities'* for business activity. Whereas it has been argued that the period prior to 2008 was characterised by SCBs managed via non-state partnerships and NGO relationships (Giovannucci and Ponte, 2005), the immediate post-Covid era saw a resurgent of government intervention and a stronger role therefore in determining SCB. Relationships between government and private sector are context-specific, however, requiring tailored governance arrangements. For instance, the Hospitality Sector Council is a UK-based partnership involving stakeholders from the industry and national government. Here, industry members tend to be supportive of well-designed regulation to create a level-playing field, for instance on mandatory food waste reporting (Quinn, 2022). By contrast, hospitality sector bodies in the US have a history of lobbying against regulation (Levine and Baertlein, 2011). A study of Taiwan's hotel industry (Mak and Chang, 2019), illustrated how adoption of green strategies was subject to multiple driving and restraining forces, yet closer collaboration among industry, government and academia was perceived as crucial in stimulating the adoption rate and diversity of environmental strategies (ibid., p. 56). Different norms and conventions in the practices of doing business means there can be no *correct* balance of hard policy levers, incentive-based interventions, and voluntary initiatives. Nonetheless, the climate emergency and the turbulent SCB are creating opportunities for pro-environmental change.

Secondly, the changing landscape of SME decarbonisation – involving an expanding field of actors across private, voluntary and

public sectors – creates complexity for policy design. Further, governance challenges for SME decarbonisation are inherently multi-scalar and multi-spatial. Some SMEs (e.g. tourism) are highly embedded in their local economies (Eadson, 2014; Coles et al., 2016), while others associate with regional or national networks (e.g. horticulture and clothing manufacture, Energy Saving Trust et al., 2022). These networks – even if geographically limited – do not necessarily conform to governmental boundaries and will differ between individual SMEs. Others still are integrated into global supply chains and are strongly influenced by multi-national corporations, such as clothing and textiles (Egels-Zandén, 2017). Effective governance must therefore include activity at – and between – all scales and work across jurisdictions, with effective processes for sharing data and learnings between governance actors (NAO, 2013; Pless et al., 2020).

Thirdly, governments must help to 'level the playing field', in relation to larger businesses and aim to ensure that SMEs of all kinds can participate in the Net Zero transition. Research has found that perceptions of fairness in policy design can hinder support for environmental regulations amongst SMEs (Revell and Blackburn, 2007), while incentive-programmes are highly variable in their reach and impact (Cravo and Piza, 2019; OECD, 2021). The primary challenge in implementing this kind of intervention is to attract significant numbers of SMEs. Engaging smaller businesses can be difficult, even when financial incentives are available (Gruber and Brand, 1991; Fleiter et al., 2012; Hampton et al., 2022). Key predictors of success in these situations include the presence of well-established business networks and thriving innovation ecosystems (Jalo et al., 2021), which can be used to expand the reach and impact of initiatives. The challenge for policymakers and funders is to balance support for leading regions and sectors to drive innovation, with those where low-carbon capabilities are weakest. Mazzucato's (2018, 2022) work on mission-oriented policy is again relevant: driven by the need to urgently reduce emissions, policymakers should prioritise equity over equality of opportunity. For instance, in regions where low-carbon business is in its infancy, policy makers might provide seed funding for a green business network to kickstart sustainable collaborations; while in geographies renowned for eco-innovation, they might provide incentives for *exporting* low-carbon solutions.

Finally, in the context of a renewed SCB, there is a need for governance institutions to leverage the role of SMEs as *influencers* and *enablers* for climate action. The practical steps towards achieving Net Zero across the economy will be delivered largely by SMEs, such as installers of solar panels, electric vehicle chargepoints, and low carbon heating and cooling systems; land managers and developers; and those developing next-generation technologies and circular business models. As SMEs capitalise on the journey to Net Zero, their influence will multiply. With SMEs employing around 50% of the private sector labour force, there is evidence that workplace practices and norms can spillover into the domestic setting, and vice-versa (Hicklenton et al., 2019; Verfuerth, 2019). Meanwhile, peer-to-peer relationships are highly valued by SME owner-managers as trusted sources of information and advice (Mallaburn, 2016; Mole et al., 2017). Therefore while we concur with Mazzucato in calling for new conditionalities to be attached to a reformed SCB, we argue that it is not just governments who must push for change. SMEs' staff, customers, suppliers and local communities are also instrumental for redefining and reorienting business-as-usual around social and environmental responsibility.

5. Acting on the challenge – Research and evidence for a just and rapid transition

Research plays a critical role in helping governance actors to incorporate SMEs into their Net Zero policymaking, identifying, understanding and explaining the changing relationships between SMEs, society and the state. While there is a substantial body of evidence on SMEs' environmental impact, the academic literature is piecemeal. The topic has attracted interest from researchers spanning a range of theoretical and methodological traditions, meaning that policymakers can find evidence on the psychological, economic and ethical drivers for pro-environmental action, and there is ample international evidence identifying barriers to adoption of energy and resource efficiency measures. However, empirical studies focus on specific sectors or geographical regions, and suffer from the same challenge as business support initiatives: engaging a sufficient sample to provide robust insights upon which policy interventions can be designed.

One major issue is that quantitative data on energy consumption and emissions from SMEs is insufficient and not comparable across countries. Australia collects figures for energy consumption by business size, while the USA only does this for manufacturing sectors. The UK and EU does not regularly collect energy use or carbon emissions for SMEs, relying on ad hoc studies to estimate their contribution. Lack of data is a significant hindrance to effective governance, preventing governments and other stakeholders from targeting their interventions and investments where impacts will be greatest. There is a need for internationally coordinated data gathering, overseen by supranational bodies such as the IEA or OECD, and delivered by national statistics agencies. Such aspirations are more difficult to realise in emerging economies, although there may be opportunities to develop capacities for energy and emissions monitoring for some SMEs via global supply chains. Improving the quality and coverage of such data would allow policymakers to identify where the greatest opportunities for carbon reductions lie, and to segment the heterogenous SME community to develop more targeted interventions.

Faced with a variety of models for designing multi-level governance arrangements, policymakers must be supported by evidence systematically comparing different structures. In Scotland and Wales, the approach to SME decarbonisation is to develop *national* programmes of support and guidance, whereas England has devolved the matter to local and regional partnerships. In Sweden, national and regional Energy Agencies are well coordinated (Thollander and Dotzauer, 2010); while in Japan, the national Energy Conservation Centre leads on energy auditing, and compared with European countries, more actively enforces its energy conservation legislation. The OECD (2021) and IEA (2015) attempts to compile evidence on international best practice are welcome, but there is a need for experimental research and counterfactual evaluation to more rigorously assess what works to encourage SME decarbonisation. Research can also tell us what does *not* work. Some evaluators can be under pressure to over-emphasise positive outcomes (Hampton et al., 2021), while many policy interventions are not evaluated at all (NAO, 2013; Thollander et al., 2015). The result is often piecemeal evidence reporting on successful case studies, and while SME decarbonisation initiatives often fall short of targets for engaging businesses, the problem of insufficient engagement is under-reported and not well understood. The climate emergency compels researchers and policy makers to be honest about less successful initiatives, and redirect effort and funding elsewhere.

Finally, given the ongoing change in the SCB, there is a need for more conceptual and empirical scholarship tracing the dynamics of business and society. How are public and consumer expectations changing with respect to SMEs' environmental responsibilities? How do SMEs perceive proposals for more classical policy levers such as taxes and regulations, and what potential is there for more creative forms of regulation which do not simply exempt SMEs (Gunningham and Sinclair, 2017)? What is the potential for positive behavioural spillover between the workplace and domestic setting? These questions demand a range of methods and theoretical approaches, calling on diverse researchers to support policymakers to develop effective, acceptable climate policies for SMEs.

To conclude, this paper has highlighted processes of transformation underway in the relationships between SMEs, society and the state, propelled by COVID-19, the energy price crisis, extreme weather events and increased public desire for climate action. These trends are reconfiguring the meanings of responsibility and ethics in the conduct of business, demanding new approaches to governance for net-zero. The

conventional social contract for business is undergoing fundamental reform, and there is exciting potential for governance stakeholders, researchers and business leaders to reformulate this unwritten agreement around the challenge of reaching net zero. In a period of multiple, intersecting crises, it is imperative that such opportunities are harnessed to accelerate climate action.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Data availability

No data was used for the research described in the article.

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References

Andrews, R.N.L., Johnson, E., 2016. Energy use, behavioral change, and business organizations: reviewing recent findings and proposing a future research agenda. Energy Res. Soc. Sci. 11, 195–208. https://doi.org/10.1016/j.erss.2015.09.001.
Bankers for Net Zero, 2023. Mainstreaming net zero mobilising SMEs for climate action. Bankers for Net Zero, London.
Bank of Scotland, 2021. From Now to Net Zero: A practical guide for SMEs.Bank of. Scotland, Edinburgh.
Behavioural Insights Team, 2023. How to build a Net Zero society: using behavioural insights to decarbonise home energy, transport, food, and material consumption. Behavioural Insights Team, Manchester.
Blundel, R., Hampton, S., 2021. How Can SMEs Contribute to Net Zero?: An Evidence Review (No. 51), State of the Art Reviews. Enterprise Research Centre, Warwick.
Bukarica, V., Tomšić, Ž., 2017. Energy efficiency policy evaluation by moving from techno-economic towards whole society perspective on energy efficiency market. Renew. Sustain. Energy Rev. 70, 968–975. https://doi.org/10.1016/j.rser.2016.12.002.
CAST, 2021. Citizens' climate assemblies: understanding public deliberation for climate policy. Centre for Climate Change and Social Transformations, Cardiff.
Coles, T., Dinan, C., Warren, N., 2016. Energy practices among small- and medium-sized tourism enterprises: a case of misdirected effort? J. Clean. Prod. 111, 399–408. https://doi.org/10.1016/j.jclepro.2014.09.028.
Cravo, T.A., Piza, C., 2019. The impact of business-support services on firm performance: a meta-analysis. Small Bus. Econ. 53, 753–770. https://doi.org/10.1007/s11187-018-0065-x.
Donaldson, T., 1982. Corporations and Morality. Prentice-Hall, Englewood Cliffs NJ.
Donaldson, T., Dunfee, T.W., 1994. Toward a unified conception of business ethics: integrative social contracts theory. Acad. Manag. Rev. 19 (2), 252–284.
Eadson, W., 2014. Towards a spatially and socially embedded approach to SME support for carbon reduction. People Place Policy Online 8 (2), 129–138.
Egels-Zandén, N., 2017. The role of SMEs in global production networks: A Swedish SME's payment of living wages at its Indian supplier. Bus. Soc. 56, 92–129. https://doi.org/10.1177/0007650315575107.
EnergyAction Australia, 2022. Energy Action net zero insights: how Australian businesses are responding to net zero. EnergyAction Australia, Parramatta NSW.
Energy Saving Trust, Purple Market Research, Blundel, R., Hampton, S., 2022. How can policy better support SMEs in the pathway to Net Zero? Climate Change Committee, London.
Fawcett, T., Hampton, S., 2020. Why & how energy efficiency policy should address SMEs. Energy Policy 140, 111337. https://doi.org/10.1016/j.enpol.2020.111337.
Filek, J., 2015. CSR: Between management strategy and a new paradigm of thought. In: Fryzel, B. (Ed.), The True Value of CSR. Palgrave Macmillan UK, London, pp. 29–48.
Fleiter, T., Gruber, E., Eichhammer, W., Worrell, E., 2012. The German energy audit program for firms—a cost-effective way to improve energy efficiency? Energ. Effi. 5 (4), 447–469.
Fuller, T., Tian, Y., 2006. Social and symbolic capital and responsible entrepreneurship: an empirical investigation of SME narratives. J. Bus. Ethics 67, 287–304. https://doi.org/10.1007/s10551-006-9185-3.
Giovannucci, D., Ponte, S., 2005. Standards as a new form of social contract? Sustainability initiatives in the coffee industry. Food Policy, Private Agri-food Standards: Implications for Food Policy and Agri-food Systems 30, 284–301. https://doi.org/10.1016/j.foodpol.2005.05.007.
Gruber, E., Brand, M., 1991. Promoting energy conservation in small and medium-sized companies. Energy Policy 19 (3), 279–287. https://doi.org/10.1016/0301-4215(91)90152-E.
Gunningham, N., Sinclair, D., 2017. Leaders & Laggards: Next-Generation Environmental Regulation. Routledge, London. https://doi.org/10.4324/9781351282000.
Hampton, S., 2018. 'It's the soft stuff that's hard': investigating the role played by low carbon small- and medium-sized enterprise advisors in sustainability transitions. Local Econ. 33, 384–404. https://doi.org/10.1177/0269094218778526.
Hampton, S., Fawcett, T., Rosenow, J., Michaelis, C., Mayne, R., 2021. Evaluation in an emergency: assessing transformative energy policy amidst the climate crisis. Joule 5, 285–289. https://doi.org/10.1016/j.joule.2020.12.019.
Hampton, S., Blundel, R., Wahga, A., Fawcett, T., Shaw, C., 2022. Transforming small and medium-sized enterprises to address the climate emergency: the case for values-based engagement. Corp. Soc. Respon. Environ. Manag. 29, 1424–1439. https://doi.org/10.1002/csr.2279.
Henriques, J., Catarino, J., 2016. Motivating towards energy efficiency in small and medium enterprises. J. Cleaner Prod. 139, 42–50. https://doi.org/10.1016/j.jclepro.2015.08.085.
Hicklenton, C., Hine, D.W., Loi, N.M., Capraro, V., 2019. Can work climate foster pro-environmental behavior inside and outside of the workplace? PLoS One 14 (10), e0223774.
Hobbes, T., 2008 [1651]. Leviathan (ed. J. C. A. Gaskin). Oxford University Press, Oxford.
IEA, 2015. Accelerating Energy Efficiency in Small and Medium-sized Enterprises. Policy Pathway, International Energy Agency, Paris.
Isensee, C., Teuteberg, F., Griese, K.M., Topi, C., 2020. The relationship between organizational culture, sustainability, and digitalization in SMEs: a systematic review. J. Cleaner Prod. 275, 122944 https://doi.org/10.1016/j.jclepro.2020.122944.
Jaggi, G., 2020. Five ways companies must redefine social contracts. EY Business Consulting. https://www.ey.com/en_lv/megatrends/five-ways-companies-must-redefine-social-contracts.
Jalo, N., Johansson, I., Kanchiralla, F.M., Thollander, P., 2021. Do energy efficiency networks help reduce barriers to energy efficiency?: a case study of a regional Swedish policy program for industrial SMEs. Renewable Sustainable Energy Rev. 151, 111579 https://doi.org/10.1016/j.rser.2021.111579.
Jamali, D., Lund-Thomsen, P., Jeppesen, S., 2017. SMEs and CSR in developing countries. Bus. Soc. 56, 11–22. https://doi.org/10.1177/0007650315571258.
Janda, K.B., 2014. Building communities and social potential: between and beyond organizations and individuals in commercial properties. Energy Policy 67, 48–55. https://doi.org/10.1016/j.enpol.2013.08.058.
Jessop, B., 2004. Multi-level governance and multi-level metagovernance. In: Bache, I., Flinders, M. (Eds.), Multi-level governance. Oxford University Press, Oxford, pp. 49–74.
Johansson, I., Thollander, P., Baurecht, D., Engers, C., Esteban, E., Janssen, M., Marian, M., Schalk, K., Scimemi, G., 2020. Review of regional energy efficiency policies towards industrial SMEs from within Europe. In: 2020 ECEEE Industrial Summer Study on Industrial Efficiency: Decarbonise Industry!, 14-17 September 2020 (online) (pp. 15-22).
Karam, C.M., Jamali, D., 2017. A cross-cultural and feminist perspective on CSR in developing countries: uncovering latent power dynamics. J Bus Ethics 142, 461–477. https://doi.org/10.1007/s10551-015-2737-7.
Levine, D., Baertlein, L., 2011. Fast-food lobbies U.S. states on "Happy Meal" laws. Reuters.
Locke, J., 2016 [1689]. Second Treatise on Government and a Letter Concerning Toleration. Oxford (ed. M. Goldie), Oxford University Press, Oxford.
Lynch-Wood, G., Williamson, D., 2014. Civil regulation, the environment and the compliance orientations of SMEs. J. Bus. Ethics 125, 1–14. https://doi.org/10.1007/s10551-013-1925-6.
Mak, A.H.N., Chang, R.C.Y., 2019. The driving and restraining forces for environmental strategy adoption in the hotel Industry: a force field analysis approach. Tour. Manag. 73, 48–60. https://doi.org/10.1016/j.tourman.2019.01.012.
Make UK, 2021. Demystifying Net Zero. Available at: https://www.makeuk.org/insights/blogs/demystifying-net-zero (accessed: November 15, 2022).
Mäkelä, H., Näsi, S., 2010. Social responsibilities of MNCs in downsizing operations: a Finnish forest sector case analysed from the stakeholder, social contract and legitimacy theory point of view. Accounting, Auditing Accountability J. 23 (2), 149–174.
Mallaburn, P., 2016. A new approach to non-domestic energy efficiency policy: a report for the Committee on Climate Change. Climate Change Committee, London.
Marlon, J.R., Wang, X., Bergquist, P., Howe, P.D., Leiserowitz, A., Maibach, E., Mildenberger, M., Rosenthal, S., 2022. Change in US state-level public opinion about climate change: 2008–2020. Environ. Res. Lett. 17 (12), 124046 https://doi.org/10.1088/1748-9326/aca702.
Mazzucato, M., 2018. Mission-oriented innovation policies: challenges and opportunities. Ind. Corp. Change 27, 803–815. https://doi.org/10.1093/icc/dty034.
Mazzucato, M., 2022. Mission Economy: A Moonshot Guide to Changing Capitalism. Penguin, London.
McKinsey Global Institute, 2020. The social contract in the 21st century: outcomes so far for workers, consumers, and savers in advanced economies. McKinsey Global Institute, New York, NY.
Mole, K., North, D., Baldock, R., 2017. Which SMEs seek external support? Business characteristics, management behaviour and external influences in a contingency approach. Environ. Plann. C: Polit. Space 35, 476–499. https://doi.org/10.1177/0263774X16665362.
Nabitz, L., Hirzel, S., 2019. Transposing the requirements of the energy efficiency directive on mandatory energy audits for large companies: a policy-cycle-based review of the national implementation in the EU-28 member states. Energy Policy 125, 548–561. https://doi.org/10.1016/j.enpol.2017.12.016.

NAO, 2013. Evaluation in Government. National Audit Office, London.
Net-Zero Banking Alliance, 2022. Mind the delivery gap: achieving net zero through finance and policy. United Nations Environment Programme, Nairobi.
OECD, 2021. No net zero without SMEs: Exploring the key issues for greening SMEs and green entrepreneurship (OECD SME and Entrepreneurship Papers No. 30). OECD Publishing, Paris, France.
Oguntoye, O., Quartey, S.H., 2020. Environmental support programmes for small businesses: a systematic literature review. Business Strat. Dev. 3, 304–317. https://doi.org/10.1002/bsd2.96.
Omran, M.A., Ramdhony, D., 2015. Theoretical Perspectives on Corporate Social Responsibility Disclosure: A Critical Review. Int. J. Accounting Financ. Reporting 5 (2), 38–55. https://doi.org/10.5296/ijafr.v5i2.8035.
Parker, C.M., Redmond, J., Simpson, M., 2009. a review of interventions to encourage SMEs to make environmental improvements. Eviron. Plann. C. Gov. Policy 27, 279–301. https://doi.org/10.1068/c0859b.
Pätäri, S., Annala, S., Jantunen, A., Viljainen, S., Sinkkonen, A., 2016. Enabling and hindering factors of diffusion of energy service companies in Finland—results of a Delphi study. Energ. Effi. 9, 1447–1460. https://doi.org/10.1007/s12053-016-9433-z.
Pless, J., Hepburn, C., Farrell, N., 2020. Bringing rigour to energy innovation policy evaluation. Nat. Energy 5 (4), 284–290.
Quinn, I., 2022. Truss government urged to stick to promises on mandatory food waste reporting. The Grocer.
Rawls, J., 1999 [1971]. A Theory of Justice (revised ed.). Harvard University Press, Cambridge MA.
Revell, A., Blackburn, R., 2007. The business case for sustainability? An examination of small firms in the UK's construction and restaurant sectors. Bus. Strateg. Environ. 16, 404–420. https://doi.org/10.1002/bse.499.
Rousseau, J-J., 1998 [1762]. The Social Contract. Ware, Wordsworth Editions.
Sacconi, L., 2012. The Social Contract of the Firm: Economics. Ethics and Organisation, Springer, New York, NY.
Schaefer, A., Williams, S., Blundel, R.K., 2020. Individual values and SME environmental engagement. Bus. Soc. 59, 642–675. https://doi.org/10.1177/0007650317750134.
Segarra-Blasco, A., Jove-Llopis, E., 2019. Determinants of energy efficiency and renewable energy in European SMEs. Econ. Energy Environ. Policy 8 (2), 117–140. https://doi.org/10.5547/2160-5890.8.2.aseg.
Shaper, M., 2022. SME Responses to Climate Change in Southeast Asia. Institute of Southeast Asian Studies, Singapore.
SME Climate Hub, n.d. SME Climate Hub [WWW Document]. SME Climate hub. URL https://smeclimatehub.org/uk/ (accessed 4.6.21).
Thollander, P., Dotzauer, E., 2010. An energy efficiency program for Swedish industrial small- and medium-sized enterprises. J. Clean. Prod. 18, 1339–1346. https://doi.org/10.1016/j.jclepro.2010.04.020.
Thollander, P., Kimura, O., Wakabayashi, M., Rohdin, P., 2015. A review of industrial energy and climate policies in Japan and Sweden with emphasis towards SMEs. Renew. Sustain. Energy Rev. 50, 504–512. https://doi.org/10.1016/j.rser.2015.04.102.
Verfuerth, C., 2019. Sustainable behaviour in the workplace: An investigation of contextual spillover effects from work to home through the lens of Identity Process Theory. (Doctoral dissertation). University of Sheffield.
Waddock, S., 2010. From individual to institution: on making the world different. J. Bus. Ethics 94 (9–12), 9–12.
World Economic Forum, 2022. Redefining profit: How ESG reporting signals a shift towards a revised 'social contract' (article). https://www.weforum.org/agenda/2022/05/esg-reporting-revised-social-contract/.
WRAP, 2021. Six in Ten Consumers Think UK Businesses Need to Act Now on Climate Change. Waste and Resources Action Programme. Banbury.
Zheng, Y., Li, C., Liu, Y., 2021. Impact of environmental regulations on the innovation of SMEs: evidence from China. Environ. Technol. Innov. 22, 101515 https://doi.org/10.1016/j.eti.2021.101515.
Zutshi, A., Mendy, J., Sharma, G.D., Thomas, A., Sarker, T., 2021. From challenges to creativity: enhancing SMEs' resilience in the context of COVID-19. Sustainability 13, 6542. https://doi.org/10.3390/su131265.