# Practice and Energy Demand

**Abstract** This chapter introduces practice theory-inspired energy demand research focusing on key concepts and insights that speak to issues of inequality. The discussion explicates core ideas that have relevance in this respect, while also engaging with existing works that have sought to address questions of inequality from within practice-based energy research. The chapter then examines an important frontier in practice theory-inspired energy research of key relevance, I argue, for energy poverty—that of invisible energy policy. Finally, I move to draw together the different conceptual threads that have been laid out through the book thus far and raise key questions that emerge for analysis of energy poverty.

**Keywords** Practice theory · Energy demand · Inequality · Invisible energy policy

## INTRODUCTION

The challenges of reducing energy demand and the development of approaches to understand energy use form the focus for a large body of work. Such work tends to be set within the broader context of environmental sustainability and particularly climate change. Indeed, central to the rationale for a research agenda on energy demand are the contentions that: (1) changes in forms of energy production (e.g. to renewable

energy technologies) are not sufficient to address associated environmental problems and (2) *reductions* in energy demand are required to meet existing commitments to reduce carbon emissions (Shove, 2015). These two basic arguments are broadly accepted by those working on energy demand issues, but beyond this there is vociferous debate. One of the key debates has a conceptual basis and concerns how social action can best be understood.

On the one hand, a fairly extensive body of research has sought to address questions of reducing energy demand with focus on psychological approaches to behavioural change (e.g. Dietz et al., 2009; Frederiks et al., 2015; Stern, 2000, 2020). On the other hand, a critically engaged analysis has come from the broadly termed 'practice tradition', with roots in sociological and geographical thought, where the basis for understanding social action implicit in much of the psychological literature is brought into question (e.g. Shove, 2003, 2010, 2011; Shove & Walker, 2014; Strengers & Maller, 2015). Crucially, where psychological behavioural research remains tied to dualisms of individual behaviour versus structural constraints, practice theory represents an attempt to characterise the interrelations between agency and structure. These fundamentally different conceptual approaches have been examined for their implications in understanding challenges associated with energy demand reduction, producing important insights.

Between these two poles of thought and analysis, there exists a spectrum of research that takes a weaker or stronger position on these conceptual issues (e.g. Gram-Hanssen, 2014; Spaargaren, 2011). Some propose alternatives, such as the energy cultures approach (e.g. Stephenson et al., 2015), while others have sought to engage with and address some of the key critiques levelled at psychological approaches (Whitmarsh et al., 2021). These offer important insights and developments for understanding behaviour change relevant to energy and its environmental consequences, as well as wider sustainability challenges. However, the focus for this book is on the practice tradition (e.g. Shove, 2003, 2010) with its conceptual emphasis on the complex relations that characterise the constitution of energy demand and needs for energy.

Here, I argue that there are core lines of thought within this tradition of energy demand research that offer important insights for energy poverty that as-yet have been left largely unexplored. Though practice theory-based analyses have offered deep understanding of the dynamics of energy demand, there has been little attention given to inequality or the

implications of insights for energy poverty (Walker, 2013). This chapter discusses key ideas, contributions, and agendas from within practice-based energy research that I suggest have relevance for thinking about issues of energy poverty. These concern theorisation and analysis regarding how energy needs come into being and are actively constituted, and the emergent field of invisible energy policy as an important area of work that can speak to questions about the socio-political dynamics underpinning experiences of energy poverty. The chapter delineates these areas of practice-based energy demand research and moves towards a conclusion focused on drawing out the key questions that arise for energy poverty research and analysis.

## Practice Theory in Energy Demand Research

The practice approach to energy demand takes a strong position on the importance of rejecting behavioural and cultural conceptualisations. Shove (along with several close collaborators) represents one of the foremost advocates of this approach. Centrally, Shove argues that 'instead of seeking more environmentally friendly ways of meeting given levels of service', through efficiency or behavioural interventions, more penetrating questions concern the processes through which services are specified and constituted in the first place (2003, p. 396). For Shove, the core question is: 'How do new conventions become normal, and with what consequence for sustainability?' (2003, p. 396). A later adjunct to this relates to the processes through which some practices are made obsolete or subject to decline, such as cycling (Shove et al., 2012). A by now well-known example, which Shove discusses in one of her earlier works, concerns practices of laundering.

In her 2003 paper, Shove offers an analysis that shows how contemporary conventions of laundering have co-evolved through the interaction of multiple mutually interdependent dimensions including technological development, conventions of cleanliness, and changes in clothing materials (notably the advent of synthetic materials). She highlights how the practice of laundering has at one time become less resource intensive, as processes of boiling have declined, but more demanding in that people are washing more frequently and combining washing with tumble drying. This kind of analysis, then, highlights how processes of change involve multiple interacting elements that lead to specifications of new forms of need with major implications (good or bad) for levels of energy demand.

This has been further developed in subsequent work to argue for a focus on 'what energy is for' within research and policy (Shove & Walker, 2014), rather than looking at energy as an abstract or underlying resource. As Shove and Walker (2014, p. 55) put it: 'energy is not used for its own sake but as part of accomplishing social practices'. Recognising this brings focus onto questions about how we live in ways that require energy use and how these particular configurations are constituted.

Shove is critical of existing focuses on efficiency and behavioural approaches because they 'obscure longer-term trends in demand and societal shifts in what energy is for' (2018, p. 779) and, as such, act to sustain increasingly energy-intensive ways of life. By way of an example these trends include things such as ongoing global increases in air conditioning. On this subject, Shove et al. (2013) offer a detailed analysis of the processes by which air conditioning is creating increasing demands for energy use, even in a context of broad recognition of needs to reduce energy demand. They argue that this is best explained by examining the ways that air conditioning has become embedded in specific forms of practice. In this regard, they highlight how the office environment has been fundamentally changed by a combination of computers, open plan spaces, and office wear, such that it increasingly involves air conditioning to cool equipment and space, as much as people. Or how the practices of nursing patients in intensive care have come to involve multiple new forms of technology such that air conditioning is now seen as a requirement of 'good' care. And how having air conditioning has become synonymous with quality in the hotel industry ramping up the requirements for these spaces to be routinely air conditioned (Shove et al., 2013). The analytic focus, then, is on the ways that practices come to require and depend upon ever higher needs for energy use.

This takes emphasis away from the individual as the unit of analysis towards practices themselves (Shove, 2010; Shove et al., 2012). Reflecting this position, Shove has developed a particular conception of practices that identifies three composite parts all of which require attention in processes of understanding how demands for energy come to be as they are. These three interrelated components have been identified as involving *materials*, *meanings,* and *competence* (Shove et al., 2012) or *material infrastructures*, *common understandings,* and *practical knowledge* (Shove & Pantzar, 2005). Though these elements have been characterised in slightly different ways, they offer a way into analysing and examining practices and the ways energy is implicated in what we do.

To give one example of how this can be applied analytically. Shove et al. (2012) use the practice of driving, working through the interrelationships between elements to show how these can be used to add to understanding of change. They point to *materials*, such as engines and carriages, *competences* such as mechanical expertise, steering, and braking, and *meanings*, such as exhibitions of wealth, links to adventure, work, and social relationships. This process of examining the interrelated elements that make up driving allows for examination of how they have changed over time. Crucially, by looking at the elements of practice, Shove et al. are able to show how the practice of driving had many precursors in daily life prior to the emergence of the car. They use this to highlight how the technology of the car and the materials that make up driving emerged and were moulded in interrelation with elements of competence and meanings.

These theoretical ideas about practice have been applied and developed further across a wide range of analyses (e.g. Hand et al., 2005; Hui et al., 2017; Maller & Strengers, 2013; Shove et al., 2012; Spurling & McMeekin, 2015; Strengers & Maller, 2015). These analyses have built insight into the ways that practices are formed and shaped within everyday life with implications for understanding the reduction of energy demand. For example, Maller and Strengers (2013) have shown how particular practices migrate with people as they move around the world, offering insights into the idea of practice memory and indicative of obduracy of practices across time and space, while Hui (2013) has developed a practice theory-based analysis of mobilities giving particular focus to the ways that examining practice (in this case leisure practices) can be far more revealing for understanding the dynamics of travel, than examination of distances traversed, or time spent travelling. In focusing on practices, Hui makes a case for mobilities as inseparable from the leisure activities she examines (namely quilt making and bird watching). This brings a way of thinking about mobilities as embroiled in multiple practices and the elements that compose them, rather than looking at them as something distinctive by focusing on flying or driving, for example.

Other contributions have sought to engage with practice theory through a focus on the person, as opposed to the practice. This has been central to debates about method and how we can empirically research practices, taking a position that some formulations of conventional social scientific methods, such as interviews, can be utilised in ways consistent with practice theory (Butler et al., 2014; Hitchings, 2011). A key focus

for this research has been on life narratives and biographical trajectories and the insights scrutiny of these can provide into how practices are shaped through time (e.g. Butler et al., 2014; Fox et al., 2017; Groves et al., 2016; Hards, 2012). For example, in my own work (Butler et al., 2014, 2016), I have examined how people's biographical experiences through their life courses intertwine with and reproduce social and material structures of consequence for energy demand. Here, the focus has similarly been on the interrelationships between different elements of change but with an approach that explores the ways agency-structure interrelations are constituted over time within and through people's lives.

The wide-ranging body of work discussed thus far offers some key concepts and inroads for thinking about inequality and poverty. However, they have rarely been applied in this way and very little research has developed practice-based thinking with focus on energy poverty. I argue that there is, however, important insight to be gained from using practice-inspired analysis in understanding energy deprivation. Within the literature, there are a small number of works and references to issues that span practice and inequality, with a few making further connections through to energy poverty. It is to discussion of these that I now turn.

## Bringing Inequality into Practice Theory: Key Concepts and Interventions

> It is… hard to find examples of research that is inspired by theories of social practice and that explicitly addresses the reproduction of abject poverty, that analyses the failure to successfully perform everyday practices, or that directly engages with the reproduction of social inequality and justice. (Walker, 2013, p. 181)

This quote from Walker highlights how despite the importance of practice theory-inspired analyses for energy demand research, the relevance of inequality has been largely neglected. Here, I focus on the small number of existing interventions that have sought to bring practice theory to bear on questions of inequality, suggesting connections across to issues of energy poverty. Of particular interest for present purposes are concepts of *recruitment*, *defection,* and *reproduction,* along with notable interventions from Shove (2002) and Walker (2013).

Recruitment and defection refer to the ways that people—defined as carriers of practice—can be recruited to or defect from practices, effectively shaping which practices are reproduced and sustained through time and which decline (see Shove et al., 2012). One key example developed by Shove et al. (2012) is that of showering as a practice that has successfully recruited large populations of people into enacting it every day. They use examples like this to set out the dimensions of practice which appear to successfully recruit practitioners, including the embedding of practices with infrastructures, institutions, and norms, but also things like the possibilities for innovation and the 'rewards' (both internal and external) that different practices afford. Central to their argument here is the idea that 'people are unknowingly engaged in reproducing and enacting multiple and varied cycles of change, simultaneously shaping the lives of practices and being shaped by them' (Shove et al., 2012, p. 77).

Crucially, it is in the elaboration of these concepts that the issue of inequality is introduced, though not explored in detail nor developed in relation to ideas of energy poverty. Shove et al. (2012, p. 65) recognise that 'social and material inequalities restrict the potential for one or another practice to develop' and limit the chances that people have for becoming carriers of any one practice. However, they focus their analysis on the ways that practices are developed and sustained or decline and expire owing to the extent to which cohorts of practitioners enact them, rather than the possibilities of exclusions from practices that arise due to inequalities. Additionally, questions about differences between practices in terms of the extent to which practitioners are compelled to engage in them or not, are hinted at in a brief mention of law but left broadly unaddressed.

Walker (2013)—as highlighted in the quote at the opening to this section—offers a more detailed examination of these questions, taking forward a conceptual analysis that draws social practice theory [using Schatzki's work] into dialogue with a specific strand of justice thinking [Sen's capabilities approach]. The key issues that he brings to light through his analysis concern, first, the differential capabilities that people have for performing different practices successfully. Or drawing on Sen, the different capabilities and potential they have for enacting social practices (the capabilities approach to energy poverty is discussed in Chapter 2). And second, the ways in which patterns of 'recruitment' to and 'defection' from practices can be contentious.

He asserts that often discussions of recruitment to and defection from practices can make such processes appear unproblematic, referring often to leisure pursuits (Hui, 2013; Shove et al., 2012). But if the practice in question is one to which access is restricted in some way, they can appear far more normatively charged. Walker (2013) points out that many practices-as-entities have embedded rules and norms and they make certain physical or material demands that restrict opportunities to participate. In this way, recruitment can appear as inseparable from capability, as if a particular practitioner lacks the capabilities to fulfil a practice, they are unrecruitable and effectively excluded.

Equally, Walker (2013) suggests that a similar line of argument can be applied to defection, with people having varying degrees of choice over whether and how they defect from practices according to their capabilities. He offers the example of a person that defects from driving because of deteriorating health or loss of employment to illustrate. This analysis offers particular focus, then, on the ways that issues of inequality can be central to questions of recruitment and defection from practices, raising valuable conceptual openings that are pertinent for thinking across practice and poverty in the energy context.

This has been touched on elsewhere in work using practice perspectives, where the relevance of looking at variation in the experiences of different groups offers a further line of thinking for engaging with inequality. Fox et al. (2017) take forward a practice-based analysis of people in later life examining how life experiences within an older demographic are shaping energy demand trends in travel (i.e. towards increasing demand). They emphasise 'how travel desires come about through the production of certain shared expectations, aspirations and other normative dimensions' (Fox et al., 2017, p. 105). But they also draw out the importance of *personal and corporeal capacity* within consideration of the recruitment of people to practices, highlighting how there are differences in capabilities to carry out practices. In this respect, their focus is on ageing bodies, but this insight brings further questions about the role of inequality in processes of recruitment and defection.

Shove has also—in earlier work—more deeply grappled with questions of inequality using practice theory to theorise social exclusions relating to mobilities (Cass et al., 2005; Shove, 2002). In this conceptualisation, social exclusion is positioned as an emergent property of three elements; (1) social practices and the obligations to perform them; (2) individual resources and capacities to meet obligations; and (3) infrastructures that

shape people's abilities to meet obligations as well as the expectations of 'normal' social participation. This brings in possibilities for thinking about how inequality is woven through these different intersecting elements. For instance, abilities to meet obligations are related to the extent of available resources and the level of access to infrastructures, both of which are unequally distributed across societies. But it also directs attention to the ways that obligations and abilities are created. Shove highlights the role of policy, in particular, as being 'deeply implicated in the construction of…demand and in the shaping of social expectations and practices' (2002, p. 10). This hints at the importance of power in the construction of practices and the requirements for participation—something that I argue could form a far more explicit and important area for analysis in energy poverty research and, as such, is given attention in the empirical analysis in the later parts of this book.

Focusing as it does on mobilities, this work (and others) also speaks to the ways that practice theory thinking can reorient analysis of transport poverty. Centrally, it shifts focus away from *enabling access* to transport, towards questions about why people travel (i.e. to enact which practices), and the ways that particular mobilities are constructed (e.g. through the favouring of infrastructure for car travel) (Cass et al., 2005; Hui, 2013; Mullen & Marsden, 2016; Shove, 2002). The notion of travel being about getting from A to B is supplanted by thinking of it as intricately woven into the accomplishment of practices. As Shove puts it, mobility… is about integrating everyday life and the activities required of 'normal practice' (2002, p. 9). This calls attention to what comes to be regarded as 'normal', and to how and why practices, and the requirements for mobility that they entail, come to be as they are. With this at the fore, transport poverty can be thought about in very different terms, with less focus on enabling access and more thought given to the constitution of needs.

Overall, the contributions, debates, and analyses from practice theory-based energy research have had major implications for the ways that energy demand is thought about and addressed. They have moved focus away from individualised decisions and choices towards the interrelationships between human agency and socio-material structures in shaping processes of change. They have highlighted the need to think beyond technical efficiency and economic rationality to bring into focus processes that are contributing to global increases in energy demand. And, crucially, they have brought attention to questions concerning 'what energy is

for', highlighting the ways in which demand for energy has been, and continues to be, constituted by processes of governance. Though there are some key interventions and nods to issues of inequality within this literature, I argue this remains an area that could be advanced much further and with greater attention across to energy poverty.

This chapter moves towards extrapolating key questions that arise for thinking about energy poverty when practice theory ideas are brought into play. Thus far, key concepts and insights related to the constitution of need have been foregrounded, but the next section delineates the other area of practice theory-based analysis that I suggest has potential for exploring challenges of energy poverty—that of invisible energy policy. Here, the relevance of governance and policies in shaping and shifting practices across diverse areas of policy far beyond energy is made the focus. This burgeoning literature has thus far primarily sought to emphasise and trace the connections between policy, practices, and environmental sustainability, but I argue offers an equally important agenda for energy poverty research.

## Practice Theory and the Emergence of Invisible Energy Policy

The fundamental contention of the invisible energy policy literature is that when focus is brought onto practices and *what energy is for*, it becomes possible to see how multiple areas of policy far beyond energy have implications for shaping, shifting, and instituting demand (e.g. Butler et al., 2018; Cox et al., 2019; Royston et al., 2018). Although the role of policy in constituting needs for energy has been identified within several practice-inspired studies of energy demand, this had not previously formed an explicit focus of analysis. The wider influence on energy demand of policies from areas as diverse as health, work, education, and housing is identifiable but very rarely is this at the fore. This emerging body of work seeks to address this gap by bringing focus on key areas of policy that, while identifiable as having important implications for energy demand, have yet to receive sufficient attention (Cox et al., 2019).

The work in this space has set out some key tenets around which a research agenda has begun to be formulated. First, the idea that policies can be regarded as invisible where they are explicitly designed to address policy priorities outside of energy but nonetheless have impacts on energy demand and issues. 'Invisibility' in this context is referring to the ways

that such impacts are either 'unacknowledged or insufficiently acknowledged' (Royston et al., 2018, p. 128), somewhat softening the intended implications of the 'invisible' concept. And the boundaries between what constitutes visible or invisible energy policy are also recognised as being 'complicated and blurred' (Royston et al., 2018, p. 128). Second, the links between policies and their impacts for practice and energy demand are recognised as being non-linear, complex, and varying from direct to indirect in the forms their effects take (Butler et al., 2018).

Of course, one might expect to find resources for these more cross-cutting analyses of governance within existing literatures and disciplines, such as political science. But Royston et al. (2018) have argued convincingly that these do not necessarily offer a good grounding for examining the kinds of issues with which this agenda is concerned. For example, while political scientists are adept at addressing policy causes and effects more broadly, they have given relatively little attention to specific functional policy areas, meaning that policy processes relating to an area like energy demand have rarely been addressed (Royston et al., 2018; and for an exception see Kuzemko et al., 2017). Equally, when the focus is on particular policies, as in impact assessments, the remit is often extremely narrow excluding possibilities for looking across the broader policy spectrum or for thinking about long-term trends. And where analysis is directed at issues of joined-up policy (Davies, 2009), studies tend to focus on the governmental processes involved, rather than attempting to understand the lived experiences of policy and their implications for practice.

At the same time, the fields of political economy and political ecology frequently address processes of global and local energy and environmental crises and offer explanatory power in terms of the role of political forces in shaping them, but tend to be either rooted in structuralist conceptual traditions that focus on political and economic power and the regulatory processes within governments (e.g. Mitchell, 2008), or engaged in post-structural analysis of altered subjectivities in the face of global economic processes, but again rarely tuned into the specifics of policies (e.g. Escobar, 1996). It is possible to assert, therefore, that there are limited available resources or methods within established traditions for investigating precisely how non-energy policies shape practice with consequences for energy demand issues.

Royston et al. (2018) make a case for a more ambitious agenda that seeks to address; 'more fundamental questions about the changing array

of 'services' that energy makes possible, about the amount of energy 'needed' in society, [and] about the role of policy in constituting these 'needs'" (Royston et al., 2018, p. 127). While, as noted, some conceptual traditions might situate governance as some form of driver or external influence on social action, understandings consistent with practice theory bring a different orientation—one which is more attentive to complexity and non-linearity (e.g. see Butler et al., 2018; Urry, 2010), while also recognising processes by which practices are shaped and shifted.

Arising from these wider conceptual developments and agenda-setting papers are a number of studies of invisible energy policy focused on different policy areas, including health (Blue, 2017; Nicholls & Strengers, 2018), digitalisation (Morley et al., 2018), and education (Gormally et al., 2019; Royston, 2016), as well as my own work on welfare policy (Butler et al., 2018). There are also studies looking at the ways that multiple different policy areas intersect within daily life to shape domestic energy practices, moving outside of the focus on specific policy areas that have dominated elsewhere (Greene & Fahy, 2020). As a body of research, this has highlighted the ways that invisible energy policies are constitutive of new needs for energy demanding services (e.g. Butler et al., 2018; Morley et al., 2018; Nichols & Strengers, 2018); how they can have direct impacts on energy issues and practices, as well as much longer-term and indirect forms of impact, for instance in shaping how energy issues are framed or delimited (e.g. Butler et al., 2018); how boundaries within governance processes can be constitutive of in/visibility (e.g. Cox et al., 2019); and the ways in which the demands of different policy agendas are negotiated by people in and through practice (Gormally et al., 2019).

Though the agenda-setting papers in the invisible energy policy space include scope for examining energy poverty and to some extent highlight it as an area for analysis (Cox et al., 2019), it is fair to say that the focus to date has primarily been on issues of energy demand reduction (with some notable exceptions, e.g. see Butler et al., 2018; Nicholls & Strengers, 2018). This is likely because the concern with invisible energy policy has emerged from the practice theory-inspired literature that as highlighted has focused on energy demand reduction and sustainability with far less consideration of inequality and issues of energy poverty.

Equally, the differing concepts found in much of the energy poverty literature (e.g. vulnerabilities, capabilities, precarity) have tended to mean invisible energy policy has not been taken up as readily by scholars working on these issues. Though there are a small number of studies that

look at the impact of welfare reform on fuel poverty (e.g. Snell et al., 2015), these tend not to engage with the wider practice theory literature in which the invisible energy policy agenda is grounded. This means that though they identify areas of impact, they do not bring focus on the conceptual insights afforded by working with practice theory and energy poverty together.

Across these key areas of practice theory-inspired research, I argue there are important ideas that can be brought to bear in analysis and thought about energy poverty. The existing interventions that foreground questions of inequality and practice signal possibilities for thinking about the constitution of needs in the context of energy poverty. And the invisible energy policy literature brings closer attention to the role of policies far beyond energy policy in both processes of constitution and calling attention to how such policy is shaping experiences of energy poverty. The conclusion of this chapter serves to draw these conceptual insights from practice theory together with those advanced in the previous chapter around energy poverty, capabilities, and precarity, to introduce key lines of enquiry for this research area.

## Conclusion

This chapter has discussed the practice theory-inspired literature on energy demand drawing together key ideas and concepts that arise from this tradition for thinking about energy poverty and inequality. Two major areas of thought have been examined—first, ideas about *the constitution and specification of need* involving processes of recruitment to and defection from practices, and second, the *invisible energy policy agenda* where the effects of policy outside of energy are given focus. I argue that these different areas of conceptual development can be brought into closer conversation with concepts from energy poverty research to inform analytic endeavours and research agendas.

First, the capabilities approach to energy poverty has already been cast in terms of how it affords possibilities for exploration of the ways that societal norms shape energy service needs. At present, thinking in terms of energy poverty more widely often focuses on the ways that energy service needs can be met in some way. Day et al. (2016), however, denote an understanding of energy poverty derived from capabilities that begins to call in to question the specification of needs for energy in a similar way to that found in practice theory-inspired energy research. They bring focus

on how social norms shape the relations between energy services and capabilities with implications for understanding energy deprivation. For example, they highlight how showering every day as a normal expectation for people in the UK can be cast in terms of its importance to maintaining the capability of social respect. This marks out showering, then, as an energy service that should be considered within energy poverty analysis in the UK context because of its links to basic capabilities. Such an approach thus offers a way of thinking about the links between social norms, energy services, and capabilities but it also signals potential to go further and bring attention to how different energy service needs come to be *made* essential to capabilities, i.e. by asking—in line with practice theory-inspired work—how social norms come to be as they are.

In this respect, I suggest a capabilities approach is well suited to alignment with the concerns of practice theory-inspired energy analysis. While analysis of capabilities brings focus on the implications of energy service needs for energy poverty, practice theory concepts force attention onto how those needs are created and, moreover, invisible energy policy insights emphasise the role of diverse policy areas in such processes of constitution. Within this, key concepts of *recruitment* and *defection* from practice theory can be used to frame questions about inequality in the processes through which people become enrolled in energy demanding practices and related social norms. Such questions concern who has the power to constitute needs and how do abilities to resist, be recruited, or defect from new norms of practice vary across different people and policy areas. All this speaks to openings for an analysis of energy poverty that places the increasing energy intensity of daily life more firmly at the heart of debates.

Second, beyond offering understanding of the constitution of needs, the invisible energy policy agenda has further value for extending thinking about how experiences of energy poverty are being shaped by non-energy policy areas. This line of analysis is more concerned with examining the ways that non-energy policy affects the prevailing conditions for energy poverty, with less focus on the constitution of need and more attention to other important points of intersection. For example, work from within the energy poverty literature building from concepts of vulnerability and precarity has already signalled the importance of social and political processes emanating from non-energy policy areas, such as housing and welfare, in shaping experiences of energy deprivation (Middlemiss, 2016; Petrova, 2018). This research highlights complex forms of influence that

shape things like the normalisation of poor housing for some demographics or what can be counted as fuel poverty as distinct from wider poverty. With invisible energy policy as a starting point for analysis, these types of concerns can be foregrounded with potential to advance understanding of energy poverty in ways that extend beyond the preoccupations and concerns of fuel poverty policy.

In the following two chapters, the areas of governance and the policy contexts within which the book's analysis is situated are discussed. Though the empirical research in this book is concerned with welfare policy as an area of invisible energy policy, it is nonetheless important to discuss wider energy demand policy too. This is revealing for understanding how definitions of energy demand issues, across poverty and demand reduction, are characterised in UK policy. Chapter 4 thus examines the UK energy demand and fuel poverty policy context before moving to address welfare policy and discuss existing connections across these policy areas. In the remaining Chapters (5 and 6), attention turns to the empirical research and its exploration in relation to the areas of theory and conceptual contribution discussed here. The ideas advanced through discussion of the literature across energy poverty and practice theory-inspired energy research are developed further, and the empirical materials are used to explore avenues of analysis at the intersections.

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