

## 5. A framework to examine changing energy management practices

### 5.1 Introduction

Chapter 5 aims to develop the theoretical framework that will support empirical research to respond to the research question: *How* and *why* do energy management practices change? The previous chapters explained that in order to contribute to our understanding of the way in which organisations develop and adopt energy management practices, the theoretical framework should:

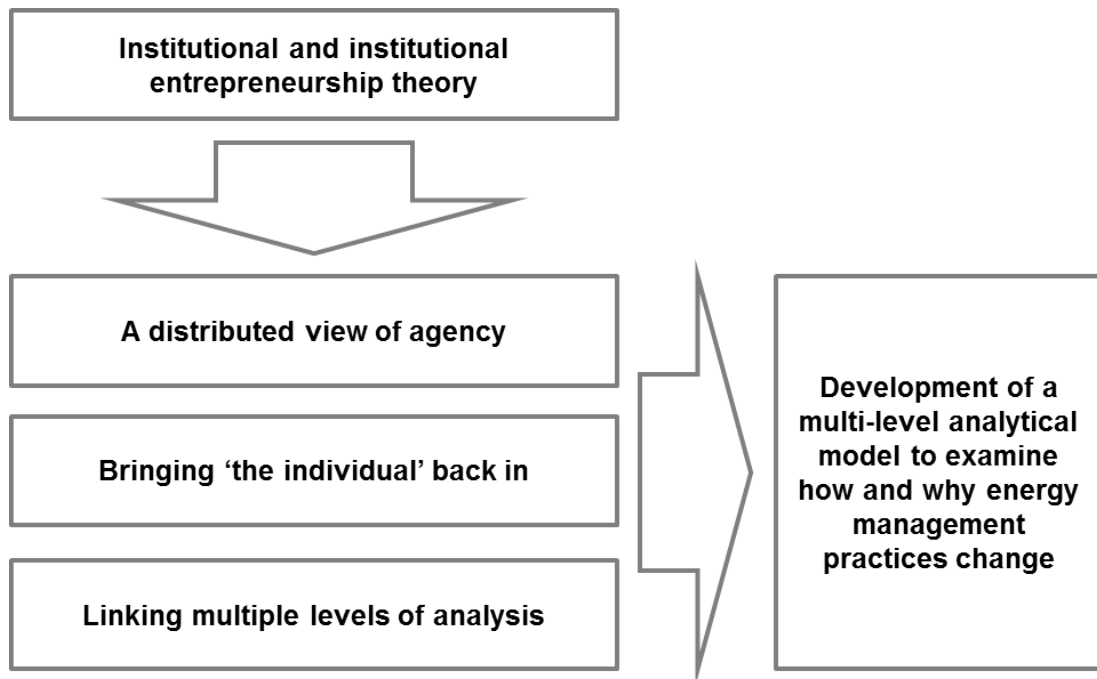
- support analysis at multiple levels from individual decision-making through to the wider social context within which organisations operate
- expose the skills and strategies of individuals as they attempt to influence changes in energy management practices
- account for the interaction between multiple stakeholders as they influence change, and
- examine the dynamic process of change over time.

This chapter argues that contemporary developments in institutional theory provide a basis for the development of an appropriate theoretical framework. At the same time, research examining *how* and *why* energy management practices change can provide insights into the process by which multiple actors interact to create institutional change, thus contributing to the institutional theory and institutional entrepreneurship literatures.

Chapter 5 begins by exploring the foundations of institutional theory, including key concepts and definitions. The challenges associated with establishing a theory of action within institutional theory are then explored and approaches to explaining institutional change are examined. Finally, three contemporary concepts that inform development of the multi-level analytical model that is used in this thesis are described. These concepts are:

1. a distributed view of agency
2. bringing micro-processes and the individual into institutional analysis, and
3. linking individual and field-level analyses (see Figure 5.1).

**Figure 5.1: Development of the theoretical framework for this study**



## **5.2 Core features of institutional theory**

Institutional theory provides a powerful approach to explain individual and organisational action (Dacin, Goodstein & Scott 2002; Greenwood et al. 2008). The core idea of institutional theory is that organisations are open systems that are deeply embedded in the social environments in which they operate (DiMaggio & Powell 1983; North 1990; Scott 2001; Suddaby 2010a). Individual and organisational behaviour is considered to be influenced by institutions, which are social structures that are: “composed of cultural-cognitive, normative, and regulative elements that ... provide stability and meaning to social life” (Scott 2008, p. 48). Recent research has examined the formation of institutions around issues such as environmental protection (Hoffman 1999) and the development of new management practices (Lounsbury & Crumley 2007; Perkmann & Spicer 2008; Reay, Golden-Biddle & Germann 2006).

Institutions influence behaviour as individuals and organisations strive for legitimacy. Legitimacy is broadly defined as the “generalised perception or assumption that the actions of an entity are desirable, proper or appropriate within some socially constructed system of norms, values, beliefs, and definitions” (Suchman 1995, p. 574). Institutions act as taken-for-granted social facts that are culturally embedded (Wooten & Hoffman 2008), much like rules of a game (Kraatz & Block 2008; North 1990).

### **Institutional elements**

Institutional theory contrasts with rationalist theories of individual and organisational behaviour in that the behaviour of individuals and organisations are attributed to the social context that they operate within, rather than the characteristics or motives of individuals or organisations operating in isolation (Biggart & Lutzenhiser 2007; DiMaggio & Powell 1991; Schneiberg & Clemens 2006; Suddaby et al. 2010). The predominance of such perspectives and their narrow focus on rationality, efficiency and coercive mechanisms may limit our ability to solve challenging social issues. This has influenced calls from some researchers to use institutional theory as a means to provide new perspectives on the many persistent social issues faced by contemporary society (Hoffman 2001; Kraatz 2011; Scott 2010; Stern & Barley 1996). As Chapter 2 highlights, the phenomenon of the energy efficiency gap and the challenge of accelerating the adoption of energy management practices are social issues that can benefit from new perspectives on both causes and solutions (Biggart & Lutzenhiser 2007; Palm & Thollander 2010; Shove 1998).

Institutions are widely considered to be composed of three central pillars or institutional elements:

1. cognitive institutional elements
2. normative institutional elements, and
3. regulative institutional elements.

These institutional elements are considered to act in combination as they influence social order, although the relative influence of each may vary according to the social context and situation (Scott 2010).

‘Cognitive’ institutional elements are the understandings that individuals and organisations have of reality and the frames of reference that are used to create meaning (Hoffman 2001). Cognitive assumptions are often reflected in the ‘taken-for-granted’ actions that are considered ‘right and natural’ (Zietsma & McKnight 2009). Cognitive assumptions may be unconscious, automatic and unquestioned (Maguire, Hardy & Lawrence 2004). Cognitive institutional elements relevant to energy management practices include the way in which various individuals and organisations understand the drivers for and benefits of energy efficiency.

‘Normative’ institutional elements guide individual and organisational behaviour through the influence of values, ethics, morality, norms, role expectations, authority systems, duty and codes of conduct (Scott 2010). Rather than financial or other instrumental outcomes, actors are considered to be influenced by their need to be part of social groups (Geels 2004). Normative elements influence actors by defining appropriate and expected behaviour in a certain social situation (Wicks 2001). March and Olsen (2006) suggest that normative social influences act as a “logic of appropriateness” that inform the question: What is required of a person like me in a situation like this? In relation to energy management, individual and organisational actors may refer to and be influenced by the behaviour of their peers and other actors. However, it is unclear to what extent normative influences might affect energy management practices and the extent to which cognitive and regulatory institutional elements are also influential.

‘Regulatory’ institutional elements influence organisational behaviour through formal rules and incentives (Strang & Sine 2000) that are developed by actors who have the authority to enforce conformity and deliver sanctions where deviation occurs (Scott 2001). The most common regulatory institutional elements are laws established and enforced by the State. Other institutional elements include industry standards (Hoffman 1999) and industry-enforced codes of conduct, certification and labelling schemes (Gale 2004).

Institutional theory has predominantly focused on explaining why organisations operating in different environments are often similar in structure (Barley & Tolbert 1997; Battilana, Leca & Boxenbaum 2009; DiMaggio 1988; Lawrence, Winn &

Jennings 2001; Tolbert & Zucker 1994). Institutional elements have been examined for their influence on social stability which is manifest in the tendency towards isomorphic (i.e. similar) organisational structures across organisational populations. From this perspective, institutional elements tend to be viewed as constraining behaviour – limiting the options available to individual and organisational actors and encouraging the reproduction of institutions (Reay, Golden-Biddle & Germann 2006). However, over the past decade, there has been a strong focus on explaining how and why institutions change (Battilana, Leca & Boxenbaum 2009; DiMaggio 1988; Maguire, Hardy & Lawrence 2004; Weik 2011) and a body of work has developed around the notion of institutional entrepreneurs who act as: “change agents who actively participate in the implementation of changes that diverge from existing institutions” (Battilana, Leca & Boxenbaum 2009, p. 70). Central to the study of both stability and change within institutional theory is the notion of the organisational field.

### **The organisational field**

Organisational fields are socially constructed through the interaction of people and organisations. This leads to the creation of local social orders which both enable and constrain individual and organisational behaviour (Fligstein 2001). Institutional analyses commonly focus at the level of the organisational field which is made up of: “a community of disparate organizations, including producers, consumers, overseers, and advisors, that engage in common activities, subject to similar reputational and regulatory pressures” (Powell 2007). The field concept has been applied across a wide variety of settings within the social sciences. As DiMaggio and Powell (1983, p. 148) explain: “the virtue of this unit of analysis is that it directs our attention not simply to competing firms, or to networks of organisations that actually interact, but to the totality of relevant actors”. One reason that a focus on organisational fields is a valuable level of analysis is that: “the transfer of ideas, practices, and organizational forms span the boundaries of organizations, industries, and nations” (Powell & Colyvas 2008, p. 276).

Cognitive, normative and regulatory institutional elements are considered to influence individual and firm behaviour at a number of interconnected levels, including the world system, society, organisational field, organisational population,

organisation and organisational subsystem (Scott 2001). Thus, organisational fields are conceptualised as being nested within larger systems (Holm 1995). Another important aspect of organisational fields is that they are not clearly delineated from one another (Seo & Creed 2002). Thus, the field concept provides an important link between studies of organisations and wider macro-structures, such as societal systems (Reay & Hinings 2005; Scott 2010).

Each of the levels mentioned so far have not received the same degree of attention. Researchers have called for greater attention to the individual or micro level since institutions are: “reproduced through the everyday activities of individuals” (Powell & Colyvas 2008, p. 277). A focus on individual and organisational practices can provide important insights into the way in which institutions are created, maintained and disrupted (Lawrence et al. 2006). Consideration of the activities at the organisational level can also inform the way in which practices change and spread across populations of organisations and industry sectors at the field level (Hoffman 2001). Institutional analysis conducted at multiple levels can provide useful insights into the strategies that people and organisations use to influence the evolution of social practices, and to evaluate the effectiveness of these strategies and the factors that may influence them (Lawrence, Suddaby & Leca 2011).

DiMaggio (1988) proposes four stages of organisational field development:

1. There is an increase in the interaction of organisations in a particular field.
2. Interorganisational dynamics emerge and create patterns of domination and coalition.
3. There is an increase in the information load that organisations in the field must attend to.
4. Mutual awareness develops amongst organisations in the field.

In early research, organisational fields were traditionally conceptualised as static; that is, researchers assumed that the institutional mechanisms would discourage people and organisations to change. Behaviour was seen to be influenced by social scripts that were, in effect, handed to people and organisations through the social environment that they operated within and over which they had no power to change (Wooten & Hoffman 2008). However, over the past decade, there has been a strong focus on explaining how and why institutions change (Battilana, Leca & Boxenbaum

2009). These recent understandings of institutional entrepreneurship and change are examined in the next section.

### **5.3 Recent understandings of institutional entrepreneurship and change**

*“New institutions arise when organized actors with sufficient resources (institutional entrepreneurs) see in them an opportunity to realize interests that they value highly.”*

*Interest and Agency in Institutional Theory*  
(DiMaggio 1988, p. 14)

As institutional theorists have placed more focus on understanding institutional change, they have been forced to address the structure–agency dilemma (Garud & Karnoe 2004) which is commonly referred to as the: “paradox of embedded agency” (Dorado 2005; Holm 1995; Seo & Creed 2002). The theoretical challenge arises because actors are considered to be embedded within social structures. This means that the intentions, actions and rationality of individuals and organisations are, effectively, conditioned by institutions (Holm 2005). Since they are embedded in social processes the question arises: How then are these actors able to effect change? (Battilana, Leca & Boxenbaum 2009; Czarniawska 2009; Seo & Creed 2002).

Institutional studies that have focused on understanding isomorphism and stability tend to assume that change would only occur through external jolts and shocks that originate exogenously; that is, from outside an organisational field. These forces, such as changes in technology, regulations and major economic shifts, have been considered to create disturbances in the organisational field leading to change at the organisational level (Barley & Tolbert 1997). Therefore, actors ‘within the organisational field’ have to respond to such changes. Under these circumstances, the focus on actors within the field is seen as one of adapting to the change, rather than being influential in creating the change itself (Hargrave & Van De Ven 2006).

In response to this view in which individuals and organisations are seen to be powerless against social forces, DiMaggio (1988) introduced the notion of the institutional entrepreneur. Institutional entrepreneurs are people and organisations

that are able to access resources and apply them in ways that transform existing institutions or create new ones (Battilana, Leca & Boxenbaum 2009; DiMaggio 1988; Garud, Hardy & Maguire 2007). Battilana, Leca & Boxenbaum (2009, p. 68) argue that institutional entrepreneurs act as change agents, yet not all change agents may be considered to be institutional entrepreneurs. The authors propose that to be considered institutional entrepreneurs people and/or organisations must: “(1) initiate divergent changes; and (2) actively participate in the implementation of these changes.” Battilana, Leca and Boxenbaum (2009, p. 69) suggest that:

“Non-divergent changes are aligned with the institutions in a field, while divergent changes break with them. Only when the changes introduced are divergent with reference to the institutional environment in which they are embedded do change agents qualify as institutional entrepreneurs.”

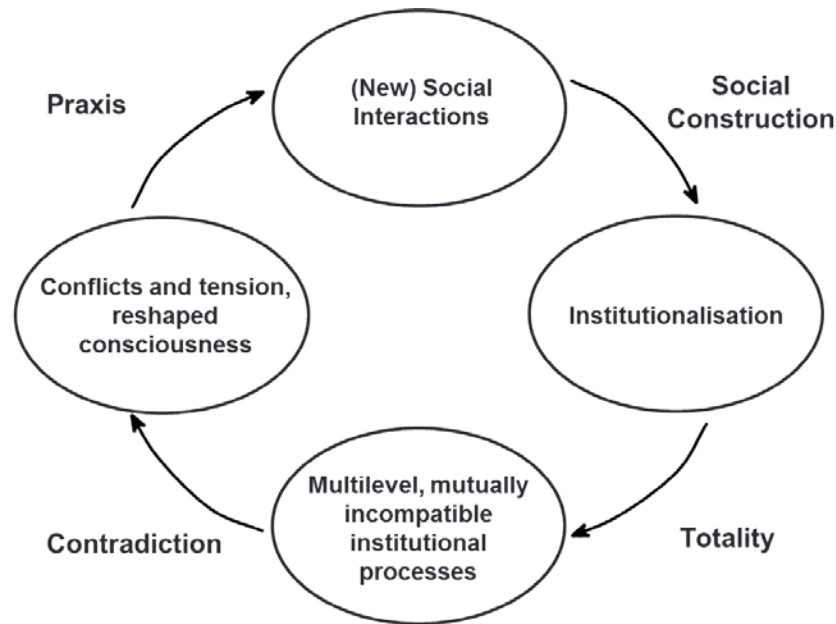
It is useful to examine recent explanations for institutional change. For example, dialectical perspectives highlight the influence of political processes within fields themselves that, through political contestation and conflict, may lead to change. Drawing on Benson (1977), Seo and Creed (2002) describe the process of institutional change as a dialectical process occurring in four phases (Figure 5.2):

1. *Social construction*: This involves human interaction directed by people’s interests and power. The process leads to the establishment and reproduction of institutional arrangements.
2. *Totality*: Since social structures are interconnected and operate at multiple levels, loose coupling leads to divergence within the interconnected system.
3. *Contradiction*: Inconsistencies amongst the social arrangements lead to ongoing social construction and complex contradictions in the social system.
4. *Praxis*: Social patterns are reconstructed through praxis which Benson (Benson 1977, p. 5) defines as: “the free and creative reconstruction of social arrangements on the basis of a reasoned analysis of both the limits and potentials of present social forms”.



**Figure 5.2: A dialectical model of institutional change**

(Source: Seo & Creed 2002, p. 225)



The dialectical perspective has led to the metaphorical description of organisational fields as a battlefield (DiMaggio & Powell 1983; Reay & Hinings 2005) and the process of change as: “institutional war” (Hoffman 1999).

A contrasting view is that there may also be high levels of collaboration within institutional fields. For example, Lawrence, Hardy & Phillips (2002) observed such collaboration amongst non-governmental organisations (NGOs), academic and government organisations in the organisational field associated with efforts to improve child nutrition in Palestine. This ‘softer’ view of political action within an organisational field is less developed than the ‘battlefield’ perspective, yet presents important questions about what conditions may influence the level of conflict, contestation and collaboration within a particular institutional field. These issues are also of relevance to the way in which energy management practices change and provide an important focus for the research presented in this thesis.

Another emerging perspective on institutional change is the notion of ‘performativity’ which is derived from practice-based perspectives in the social sciences. Performances are: “the specific actions taken by specific people at specific

times when they are engaged in an organizational routine” (Feldman 2003, p. 102). Even where there are detailed prescriptions available to an actor, variation may occur as they interpret those prescriptions which lead to variation in performance (Feldman 2003). Performative-driven change may be accomplished by skilled actors (Fligstein 2001) who rely on practical–evaluative agency (Emirbayer & Mische 1998) in order to determine improved ways of doing things to conduct a particular task or to adapt their actions to meet the requirements of different audiences (Lounsbury & Crumley 2007). Conceptually, although such practices may be influenced by the social context within which they occur, they are not considered to be directly *determined* by institutional rules (Lounsbury & Ventresca 2003).

The degree of embeddedness of actors also provides an explanation for institutional change. As mentioned earlier, ‘embeddedness’ refers to: “the degree to which actors and their actions are linked to their social context” (Reay, Golden-Biddle & Germann 2006, p. 978). Reay (2006) describes three ways in which actors with a low degree of embeddedness might be encouraged to effect institutional change:

1. New actors may enter an institutional context that has already been established. Such actors are less likely to be constrained by the current practices and they may bring new ways of working.
2. Actors at the periphery of fields may play an important role in instigating change.
3. In new and emerging fields the ‘rules of the game’ may not have been well established. This provides an opportunity for actors to establish the social rules as the field develops.

Embedded agency has traditionally been presented in the literature as a constraint on action. However, Reay (2006) proposes an alternative view by suggesting that embedded actors have particular knowledge and experience within a field and they may *use* their embeddedness to identify opportunities for change that less embedded actors may not be able to identify.

As well as the experience and knowledge of actors suggested by Reay (2006) the level of skill that an individual or organisation has to create institutional change may also influence the potential for and success of institutional entrepreneurs. Fligstein introduced the term ‘social skill’, which he defines as: “the ability to engage others

in collective action” (2001, p. 105). According to Fligstein and McAdam (2011), actors are always using social skills and acting strategically, even within relatively stable fields. Social skills include: “reading people and environments, framing lines of action, and mobilizing people in the service of these action frames” (Fligstein & McAdam 2011, p. 7). Lawrence, Suddaby and Leca use the term ‘institutional work’ to describe: “the practices of individual and collective actors aimed at creating, maintaining, and disrupting institutions” (Lawrence, Suddaby & Leca 2011 p.52). There does not appear to be a clear distinction between the terms or concepts of ‘social skills’ and ‘institutional work’. Both concepts encourage researchers to focus on the actions that people and organisations take to influence institutions, whereas more traditional institutional studies have typically focused on the effect that institutions have on actors. This contrast in perspectives is relevant to framing the research presented in this thesis, which aims to understand how people and organisations change ‘taken-for-granted’ social rules associated with energy management practices. It looks to understand what actions individuals and organisations are subject to and what actions are taken by individuals and organisations that are successful in changing the established ‘way of doing’ energy management. It is expected that exploring the role of corporate energy practitioners may provide important insights into the social skills that are effective in influencing institutional change.

Battilana (2006) proposed that an individual’s position in an organisational field may influence their level of embeddedness and the extent to which they are likely to act as institutional entrepreneurs. She presents three factors related to an individual’s position in an organisation that may influence the likelihood that they effect change:

1. informal position
2. formal position, and
3. tenure in position.

An individual’s position in the organisational field is also presented as an influencing factor (e.g. the status of the organisation they work for, the status of their social group and interorganisational mobility).

This section of the chapter concludes by describing a typology of institutional change that was developed by Hargrave and Van de Ven (2006) – with the aim of

providing greater integration to the literature on institutional entrepreneurship and change and to focus future research. Before examining their model, it is useful to review the meaning of ‘institutions’. Hargrave and Van de Ven (2006, p. 966) define institutions as: “the humanly devised schemas, norms, and regulations that enable and constrain the behaviour of social actors and make social life predictable and meaningful”. The key research questions examined by each of the four models presented by Hargrave and Van de Ven are presented in Table 5.1. Each of the four models is then briefly described.

**Table 5.1: Key questions examined in four distinct models of institutional change**

Perspective	Question
Institutional Adaptation	<ul style="list-style-type: none"> <li>• How do individual organisations adapt to their institutional environment?</li> <li>• Why do organisations adopt similar institutions?</li> </ul>
Institutional Diffusion	<ul style="list-style-type: none"> <li>• How do institutions reproduce, diffuse or decline in a population or organisational field?</li> <li>• Why are so many organisations alike?</li> </ul>
Institutional Design	<ul style="list-style-type: none"> <li>• What actions and roles do individual actors undertake to create or change an institutional arrangement?</li> </ul>
Collective Action	<ul style="list-style-type: none"> <li>• How do institutions emerge to facilitate or constrain social movements or technological innovations?</li> </ul>

(Source: Hargrave & Van De Ven 2006, p. 867)

The Institutional Adaptation model focuses on understanding how and why organisations conform to forces in the institutional environment. Actors are seen to be responding to change, rather than creating change. Researchers seek to explain how the institutional environment shapes organisational structure and the actions of organisational actors. The Institutional Diffusion model seeks to explain the spread of institutions across organisational populations. This includes consideration of how and why specific institutional arrangements are adopted and retained by actors. The Institutional Adaptation and Institutional Diffusion models reflect a more traditional approach to change in that individuals and organisations are considered to be socialised by institutions and they have limited or no agency to effect change. Their

responses are strongly influenced by the social context within which they operate.

The Institutional Design model places a strong focus on institutional entrepreneurs as actors who aim to influence their social context in order to meet predetermined aims. Institutional arrangements reflect the intentional nature of actors as they seek to change the social ‘rules of the game’ in order to achieve their own ends.

The final model proposed in Hargrave & Van de Ven’s typology is the Collective Action model. Collective actions are defined as: “emerging from a dialectical process in which opposing actors in the organizational field frame issues and construct networks in an attempt to introduce new institutional arrangements” (2006, p. 865). This includes the construction of new institutions through the political behaviour of actors as they interact with others as organisational fields emerge. The dialectical aspect of the model suggests that confrontations amongst actors lead to change. Hargrave & Van de Ven (2006) suggest that the Collective Action model is the least developed of the four models. Research that examines collective action can contribute an improved understanding of institutional entrepreneurship and change. Chapter 3 highlighted the complex range of organisational actors that may influence the energy management practices that organisations adopt. Thus, energy management is an appropriate topic to further develop the Collective Action model of institutional change. The potential is examined further as the next section describes a central aspect of the Collective Action model; that is, the notion of distributed agency.

#### **5.4 Adopting a distributed view of agency**

Since the notion of institutional entrepreneurship was first introduced by Di Maggio (1988) the depiction of actors as socially determined ‘cultural dopes’ (at one extreme) and as heroic actors able to overcome institutional pressure with relative ease (at the other extreme) has been widely criticised by institutional theorists (Fligstein 2001; Powell & Colyvas 2008; Suddaby 2010b). This has led to an emerging focus on models of institutional change that more effectively account for the involvement of multiple actors who influence each other as part of the process of change. A focus on distributed agency can support the development of new perspectives on the nature of organisational fields and the processes by which

institutions are developed, maintained and transformed (Battilana & D'Aunno 2009; Lawrence, Suddaby & Leca 2011).

The notion of distributed agency is that institutional change occurs through the interactions of a number of different actors (Lawrence, Suddaby & Leca 2011). These actors may be distributed across: “multiple dimensions including space, status and time” (Lounsbury & Crumley 2007, p. 1007). The activities of these actors and their influence on each other may limit the options available to other actors within a field over time, creating path dependency (Garud & Karnøe 2003; Schneiberg 2007; Zilber 2012). Actors may behave intentionally, through institutional work, which describes: “the purposive action of individuals and organizations aimed at creating, maintaining and disrupting institutions” (Lawrence & Suddaby 2006, p. 215). Actors may also influence institutional development without specific intentions to alter existing institutional arrangements (Dorado 2005; Zietsma & McKnight 2009). A distributed approach to agency can highlight: “political action among distributed, partisan, and embedded actors” (Hargrave & Van De Ven 2006, p. 882) – addressing an under-theorised aspect of institutional theory associated with depictions of actors and the power and politics that lead to institutional change (Clegg 2010; Wooten & Hoffman 2008).

Another advantage of adopting a distributed view of agency is that consideration of the work of multiple actors can help to address significant gaps in the literature associated with the: “processes by which new institutional innovations emerge, compete, and resolve into shared logics and practices over time” (Zietsma & McKnight 2009, p. 3496). The notion of distributed agency provides an opportunity for researchers to examine:

- the efforts of individual actors in creating institutional change
- the way in which individual contributions combine
- the response that actors have to each other, and
- how the overall contribution of these actors leads to institutional change and stability (Garud & Karnøe 2003; Lawrence, Suddaby & Leca 2011).

Garud & Karnoe (2003) suggest that, despite limited attention to distributed agency within the institutional entrepreneurship literature, the notion is widely acknowledged and theorised within the social construction of technological systems (SCOTS) literature. That is, technological development is considered to involve multiple actors with specialisations that collectively contribute towards achieving technological progress (Garud & Karnøe 2003). However, it is only relatively recently that the distributed view of agency has been explored within the institutional entrepreneurship literature (Battilana, Leca & Boxenbaum 2009).

Garud and Karnøe (2003) aim to connect the SCOTS and institutional entrepreneurship literature in a study that compares the technological development of wind turbines in Denmark and the United States. They observed that the actions of institutional actors in each country had a strong influence on the technological outcomes that were achieved. The authors used the term 'bricolage' to describe the approach in Denmark, in that there was a high level of: "resourcefulness and improvisation on the part of the involved actors" (Garud & Karnøe 2003, p. 278). In contrast, the approach in the United States was based on a strong and confident vision of success in which efforts were primarily focused on attempts to leapfrog existing technology. The actors' confidence and belief that they would achieve a breakthrough in the United States led to the expectation amongst the actors involved that 'technological breakthroughs' would be achieved by solving engineering problems quickly and dramatically. When that was not achieved in the United States, progress stalled. In contrast, a continuous improvement approach in Denmark contributed to ongoing progress and development.

Garud and Karnoe (2003) suggest that the composition of the organisational fields that formed in each country, the cultural expectations and approach of those involved and the interactions between actors within each technological field helped to explain why the Danish wind turbine industry was more successful than the United States wind turbine industry. An important point of difference with the approach adopted in the SCOTS literature was that – in addition to actors being distributed over geographical locations – they were also embedded in the technological paths that they attempted to shape. The interaction between distributed actors suggests that path dependency is created. This limits the choices available to actors in the field. The

higher level of adaptability and cooperation amongst actors in the Danish case, allowed for greater adaptation than was available to actors in the United States case.

With regard to the application of distributed agency as it relates to the emergence and adoption of new management practices, Perkmann and Spicer (2008) conducted a literature review to identify empirical studies that examined the role and institutional work of actors attempting to institutionalise management ‘fashions’ such as Total Quality Management, quality circles and business process reengineering. They found that many studies had a focus on one dominant actor. For example:

- Baron, Dobbin & Jennings (1986) emphasised the role and influence of trade unions on human resource management practices
- David and Strang (2006) and Giroux (2006) focused on consultants and gurus in considering the refinement and promotion of management practices associated with Total Quality Management, and
- Benders, Berg and Bijsterveld (1998) focused on the role of consultants in relation to Business Process Engineering.

In contrast, a few other studies examined the interaction amongst multiple and distributed actors. For example:

- Hoffman’s (1999) study of environmental practices in the United States considered the roles of the state and NGOs as well as large for-profit organisations.
- Orsato, Hond & Clegg (2002) examined the interaction between the government, industry associations and industry participants in the development of recycling in the European automotive industry.
- Botzem & Quack’s (2006) work on financial reporting practices included consideration of the roles, influence and activities of professional bodies, governmental bodies and international NGOs.

In reviewing these studies Perkmann and Spicer (2008) have suggested that management fashions are more likely to become embedded within organisations when there are a number of diverse institutional actors involved, and when those actors use different skills and strategies to change the institutions that they are



subject to. Their paper concluded with suggestions about a number of key research gaps in the institutional entrepreneurship literature that are associated with the development of management practices. The authors highlight the need for more careful examination of the sequencing of the types of activities that bring about institutional change. The research presented in this thesis will examine the process by which energy management practices change over time, thus addressing the need for a better understanding of the way in which actors influence institutional change and the sequence by which change occurs over time.

The Garud and Karnoe (2003) and Perkmann and Spicer (2008) studies have provided important insights into key considerations and research gaps associated with adopting a distributed view of agency. Three additional empirical studies by Lawrence, Hardy and Phillips (2002), Reay and Hinings (2005) and Zietsma and McKnight (2009) are considered here with specific reference to the insights on the role that distributed actors play in relation to the emergence, reconstitution and evolution of institutions and institutional fields. Relevant points from each of these studies are summarised in Table 5.2.

**Table 5.2: Key insights from empirical studies considering distributed agency**

Research setting	Key actors	Insights regarding distributed agency and institutional change
<b>Lawrence, Hardy &amp; Phillips 2002</b>		
Explored the growing influence of a small NGO in the field of child nutrition	<ul style="list-style-type: none"> <li>• NGOs</li> <li>• Academic institutions</li> <li>• Government Ministry of Health</li> </ul>	Collaboration between actors becomes a source of change that allows less powerful actors to effect institutional change
<b>Reay &amp; Hinings 2005</b>		
Examined the reconstitution of the health care field in Alberta, Canada following the introduction of major structural change by the regional government	<ul style="list-style-type: none"> <li>• Suppliers</li> <li>• Resource and product consumers</li> <li>• Regulatory agencies</li> <li>• Organisations producing similar services and products</li> </ul>	Change was primarily driven by one powerful actor (the provincial government), but the study identified the interdependencies and influence across actors in the field as it was reconstituted following a radical change initiative
<b>Zietsma &amp; McKnight 2009</b>		
Examined the institutional work of diverse actors involved in defining a sustainable forest management standard	<ul style="list-style-type: none"> <li>• Activists</li> <li>• Industry associations</li> <li>• Regional government</li> <li>• Elite organisational field members</li> </ul>	Observed institutional development as a process of co-creation, involving both collaboration and competition Institutional disruption, creation and maintenance work occurs concurrently and iteratively

Lawrence, Hardy and Phillips (2002) observed the activities of an NGO as it enhanced its position from being viewed as an organisation with limited influence to one that was considered a regional expert in child nutrition. The study demonstrates that even small organisations with limited influence and power may be able to effect institutional change through collaboration with others – particularly where the collaboration involves partners that are able to share their specific expertise and knowledge to achieve a shared objective. From a methodological perspective, the

study highlights the value of deep, qualitative approaches that allow for insights into institutional development that are unlikely to emerge through large-scale qualitative studies.

In contrast to the study of small organisations with limited power influencing the development of institutions, Reay and Hinings (2005) examined the interactions amongst a range of different actors involved in the re-composition of the organisational field associated with health care following a large-scale, government-led health reform initiative in Canada. Although the state organisation was a powerful actor, an important contribution from this study was the balanced focus on the relationships between actors within the field and the structure of the field itself. The key propositions from the study were that:

- radical change requires change to field structure as well as the dominant institutional logic in the field
- actors in the field must consistently use their power to drive change
- organisational logics may continue to influence field-level activities – even after a new dominant logic is introduced, and
- key actors respond to change according to their power to take action and the degree to which their interests are aligned to the new institutional logic.

The authors concluded the study with a call for these propositions to be tested in other sectors and circumstances.

Zietsma and McKnight (2009) have presented a more complex view of an organisational field in their study of the emergence of sustainable forestry management practices in Canada. They examined the institutional work of an array of diverse actors involved in defining a widely accepted standard to define sustainable forest management. The authors describe two primary mechanisms for the co-creation mechanisms:

1. collaborative co-creation, which involves adjustments to the proto-institutions that are put forward on the basis of feedback from potential supporters, and
2. competitive convergence, which involves responding to feedback from potential adopters as well as the creators of other proto-institutions.

In concluding the paper, Zietsma and McKnight suggest that the: “co-creation process by multiple actors of different types is much more common than the current literature suggests” (p. 4011). Their study, together with the others considered in this section has important implications for further research that is focused on distributed agency as a means of contributing to our understanding of institutional dynamics.

#### 5.4.1 Section summary

This section of Chapter 5 has introduced the notion of distributed agency as a means of developing a more normative view of agency within the institutional entrepreneurship literature. Key studies that have adopted a distributed perspective of agency have also been reviewed. The Garud & Karnoe (2003) study plays an important role in linking concepts from the SCOTS literature to the institutional entrepreneurship literature by highlighting the impact that actors distributed within a field can have on the technological outcomes achieved. In particular, their study has highlighted the embedded nature of actors and the way in which their interactions can create path dependency and both constrain and provide opportunities for actors in a particular field. Perkmann and Spicer (2008) have suggested that – for management practices to be institutionalised – the involvement of a number of different actors and the diversity of the institutional work that they conduct can have an important influence on the extent to which new management practices become institutionalised. The studies by Lawrence, Hardy and Phillips (2002) and Reay and Hinings (2005) raise important questions about the extent to which distributed actors may collaborate or compete through the process of institutional emergence and re-establishment. Finally, Zietsma & McKnight’s (2009) study of the emergence of proto-institutions around sustainable forest practices challenges established linear perspectives of institutional development by demonstrating the non-linear, co-creation of institutions within a field in which actors are involved in a range of political activities that involve both collaboration and competition.

These studies demonstrate the value of adopting a distributed agency perspective in undertaking institutional research. They also raise a number of relevant research questions that correspond with the research questions that have emerged from the energy efficiency literature review. These are:

- Who are the stakeholders that influence energy management practices and how do they effect change?
- How do corporate personnel with responsibility for energy efficiency improvement (referred to as corporate energy practitioners in this thesis) influence the development and adoption of energy management practices?
- What are the triggers that precipitate changes in energy management practices?

The next section reviews the literature in two distinct, yet interrelated areas to provide further perspectives on these questions. The first relates to the call from researchers to ‘bring people back in’ by examining the role and activities of individuals involved in institutional change. The second area highlights the links between individual, organisations and the field throughout the process of institutional change.

### **5.5 Bringing micro processes and the individual into institutional analyses**

Earlier, this chapter highlighted that the organisational field is a valuable level of analysis because it allows for change to be examined in a manner that spans organisations as well as industries and even nations (DiMaggio & Powell 1983; Powell 2007). This broad level of analysis may be considered the ‘macro level’. This has meant that theory has tended to focus on momentous events at the organisational field, industry and national level without considering the involvement and influence of everyday processes and the powerful role that individuals may play in maintaining social order (Powell 2007).

In contrast, researchers have increasingly called for a greater focus on individuals, micro-processes and practices to provide new insights into institutional dynamics and change (Aten, Howard-Grenville & Ventresca 2012; Battilana, Leca & Boxenbaum 2009; Greenwood et al. 2008; Lawrence, Suddaby & Leca 2011; Norus 1997; Powell & Colyvas 2008; Reay, Golden-Biddle & Germann 2006; Zilber 2012). This section of the thesis considers the contribution that a focus on micro-processes as a level of analysis can bring to the institutional entrepreneurship literature and reviews some key empirical studies that have done so. This is relevant to consider because (as was highlighted in the previous chapter) there is a need to

examine the decision-making process associated with energy efficiency projects at the micro level; that is, at the level of individual decision-making, as well as to link action on projects with an organisational and organisational field-level context. Also, it is relevant to examine the role that individuals play in raising the focus of energy efficiency in their organisations in order to accelerate energy efficiency improvement.

### 5.5.1 **The rationale for considering the individual in institutional analyses**

As discussed previously in this chapter, an important strength of the institutional approach is the concept of the organisational field. Analysis at the field level is that the transfer of ideas, technologies, practices and institutional forms occurs across the boundaries of organisations (Powell & Colyvas 2008). The micro and individual levels of analysis have received much less attention in the institutional theory literature (Battilana, Leca & Boxenbaum 2009; Suddaby 2010a). However, ultimately, institutions are created and enacted by individuals. As Powell and Colyvas (2008, p. 277) describe them, institutions are: “reproduced through the everyday activities of individuals”.

Analysis at the micro level allows for unique perspectives in a number of areas including the:

- ways in which individuals influence the development of institutions and dynamics of institutional change (Lawrence, Suddaby & Leca 2011, Maguire, Hardy & Lawrence 2004, Powell 2008)
- conditions under which individuals might be encouraged to act (Zilber 2012), and the different forms of influence that an individual might use (Battilana, Leca & Boxenbaum 2009).

Powell (2008) argues that attention should not just focus on individuals within powerful positions. This is an important consideration as a focus on obviously powerful individuals within a field may lead to overly heroic representations of their abilities and influence.

To illustrate the value of incorporating the individual and micro level within institutional studies, four empirical studies are considered. These are authored by:

1. Reay, Golden-Biddle and Germann (2006)
2. Barley and Tolbert (1997)
3. Lounsbury and Crumley (2007), and
4. Rothenberg (2007).

Reay, Golden-Biddle and Germann's (2006) study highlighted the ways in which middle managers used their knowledge of the Canadian Health System to progressively implement changes that established 'Nurse Practitioners' as a legitimate role. The authors observed that, by focusing on the actions of individual actors, seemingly isolated examples of new practice evolution eventually led to legitimate new ways of working that became 'taken for granted' across the organisational field. The study presented actors as skilled and experienced. Their experience allowed them to recognise the most appropriate and effective strategies to influence institutional change. This involved using the context that they operated within to achieve their goals. This important finding contrasts with the dominant perspective within institutional studies that embeddedness is primarily a constraint on change. With regard to the origin of change, the authors were unable to identify an external jolt that provided the genesis of the change process.

Reay, Golden-Biddle and Germann (2006) were able to build on Barley and Tolbert's (1997) study containing explanations of micro level change by showing how individual actors create and replicate new scripts that they consider appropriate for their workplace. In particular, Barley and Tolbert's study contrasts with studies that present embeddedness as a constraint by demonstrating the way in which actors used their embeddedness to create change at the micro level that ultimately influenced practices at the macro level. The study also highlighted the role that middle managers can play in initiating change as they worked to influence the actions of both front-line workers and upper-level managers.

Although the term 'performativity' was not used within the Golden-Biddle and Germann (2006) study, the description provided appears to be consistent with Lounsbury and Crumley's (2007) study into the emergence and broad acceptance of new money management practices in the United States mutual fund industry. Individual performances play a key role in both reproducing and altering a given

practice: “through variation in its enactment” (Lounsbury & Crumley 2007, p. 996). Lounsbury and Crumley’s study highlighted the skill of the actors involved as they modified and customised practices to meet the needs of specific audiences and to accomplish particular tasks. This ultimately led to the adoption of new money management practices, which subsequently became widely ‘taken for granted’.

Rothenberg (2007) examined the role of environmental managers as institutional entrepreneurs and the influence that different institutional contexts can have on waste management practices within a multinational corporation. The study has drawn attention to the unintended consequences of policy analyses; for example, assumptions that coercive influences may be stronger than normative influences. It has also demonstrated how environmental managers act as ‘boundary spanners’ – providing an important link between the institutional drivers and the micro practices occurring within the firm. The importance of building these links from the individuals to the organisation are discussed in the next section of the chapter.

### 5.5.2 **Implications for the research presented in this thesis**

Institutional researchers have called for the incorporation of individual-level analysis within institutional theory. This can provide a number of theoretical insights into institutional dynamics since ultimately, institutions are: “reproduced through the everyday activities of individuals” (Powell & Colyvas 2008, p. 277). An important research consideration is the role that individuals play in institutional change and the conditions under which individuals are enabled to act in relation to changing energy management practices. The literature review on energy efficiency and energy management has highlighted two particular micro level analyses that could provide useful insights into the dynamic process of institutional change:

1. The first area relates to the individuals that are involved in making a decision on whether to support or reject a proposed energy efficiency project. The review in Chapter 3 highlighted that the dominant theoretical perspective applied to understand the energy efficiency gap (i.e. neoclassical economics) assumes that decision-makers aim to make rational decisions in the best interests of their organisations (Biggart & Lutzenhiser 2007). The behavioural perspective loosens this assumption somewhat in acknowledging the ‘bounded’ nature of rationality



and allows for the influence of cognitive limitations, values, motivations and bias in the individual. The review also noted that the wider organisational and interorganisational context could influence such decisions. Thus, the question is raised: How does the organisational and field-level context influence individual decision-making on energy efficiency projects?

2. The second focus area for individual-level analysis is on the energy management practitioner; that is, the person within the organisation who has responsibility for improving the organisation's energy performance. They have a unique role in that they have the responsibility and are expected to influence and work widely across their organisation. The question that arose in the previous chapters is: How do corporate energy practitioners influence institutional change?

A key question is whether and how they act as institutional entrepreneurs. The criteria proposed by (Battilana, Leca & Boxenbaum 2009) that institutional entrepreneurs are actively involved in change and institute divergent changes is adopted in this thesis. The authors define divergent changes as those that: "break with the institutionalized template for organizing within a given institutional context" (Battilana, Leca & Boxenbaum 2009, p. 68).

In keeping with the earlier discussion of distributed agency, care should be taken not to isolate individual-level analysis from the wider institutional context and attention should be paid to obviously powerful actors as well as those who are less visible, hence avoiding the depiction of actors being overly powerful. The next section of this chapter considers how individual-level analysis might be linked to organisational and field-level analyses to provide important insights into institutional development.

## **5.6 Examining multiple levels of analysis**

The call from researchers to develop more comprehensive accounts of human agency was considered earlier in this chapter. Adopting a distributed view of agency was identified as one important way of addressing this challenge and, in turn, developing a more informed and integrated view of institutional entrepreneurship and change. The gap in research that considers the role of individual actors was then discussed with reference to the theoretical insights gained from recent studies.

This section of the chapter considers the value in undertaking multi-level studies. In particular, it highlights the benefits of research that examines the linkages between the micro and individual level of analysis together with organisational and field-level activity. The section concludes with a summary of the key considerations for developing a multi-level model in this research.

### **5.6.1 The benefits of adopting a multi-level approach to institutional analysis**

As discussed previously in this thesis, localised organisational fields have been the most common level of analysis within institutional theory. Field-level analysis helps to explain how local social orders are created, maintained and transformed across populations of organisations (Fligstein 2001; Scott 2001). However, researchers also acknowledge that fields are ‘nested’ and may be examined at a number of different levels, such as the world system, society, organisational field, organisational population, organisation, and organisational subsystem levels (Scott 2001).

As Holm (1995) describes it, first-order systems may be defined by second-order institutional systems (and so on). Change that occurs at one level may then lead to change at other levels. Considering fields as nested systems highlights the potential that an event at one level may influence reactions and cumulative changes at other levels; for example, changes at the first-order level may provide a foundation for further change at a higher level. Holm (1995) also suggests that the nested systems perspective means that a triggering of change by external events may lead to unexpected impacts as the interpretation and response to such changes at lower levels are redirected. The value of the nested systems perspective is that it helps to distinguish between practical action, which is guided by institutions, and political

action, which aims to change institutions.

By linking micro processes with macro processes, multi-level institutional studies can provide a more developed account of institutional dynamics (Barley & Tolbert 1997; Powell & Colyvas 2008; Schneiberg & Clemens 2006). Such studies can also provide specific insights into the work of institutional entrepreneurs (Battilana, Leca & Boxenbaum 2009; Reay, Golden-Biddle & Germann 2006) and provide more comprehensive depictions of organisations by demonstrating that their responses are not strictly determined by the influence of institutions (Hoffman 2001).

The work of Schneiberg and Clemens (2006), Hoffmann (2001) and Shultz (Schultz 2012; Schultz & Hinings 2012) outline important considerations for the development of multi-level analytical models. Schneiberg and Clemens (2006) challenge the focus on homogeneity in the organisational response across fields and encourage researchers to emphasise the segmented and multi-level character of fields to explain diffusion that occurs: “in an uneven, lumpy fashion” (Schneiberg and Clemens 2006, p. 205).

A multi-level model developed by Hoffmann (2001) provides useful insights into the development of the theoretical framework for this thesis. Hoffman proposed a multi-level model that links organisation and field-level analysis. The model aims to pay balanced attention to the influence of the organisational field and the role of organisational-level actors as they interpret and respond to institutional pressures.

Two categories of analysis included in the multi-level model are:

1. Field-level communities of corporate environmental practice. As discussed previously, there has been a tendency to focus on powerful individual organisations (e.g. the state) and to consider the impact that it has on organisations. Organisations are typically treated as homogenous entities. Hoffman suggests that there has been limited attention paid to the collective influence of the many different constituents in the field and the differential influence they have on actors within organisations themselves. In applying the multi-level model to the case of corporate environmental behaviour (the second category), Hoffman identifies key field constituents as social activists, shareholders, regulatory agencies and suppliers.

2. Occupational communities within organisations that could be expected to respond in different ways to the pressure exerted by external actors. This is a notion that requires further research. Hoffman suggests that the composite effect of the pressure from diversity amongst the field constituents may be quite different to the effects observed when each of these actors is considered in isolation.

With regard to the energy efficiency gap and the development of energy management practices, the multi-level model developed by Hoffman raises an important question about the mechanisms by which organisations interpret and then respond to the changing constituency of the field associated with energy management practices. One limitation of Hoffman's model is that its intention is to examine the influence of institutions on organisational actors, but there is limited consideration of the influence that organisational actors have on institutions. This is a research gap that will be examined in the empirical research conducted in this thesis.

### 5.6.2 **Implications for the research presented in this thesis**

This section has explored the value of and key considerations for developing a multi-level model of institutional analysis that links individual, organisational and field-level analysis. As well as providing important insights into institutional entrepreneurship and the influence of distributed agents in effecting institutional change, such an approach can also provide more sophisticated explanations for non-isomorphic (i.e. diverse) organisational responses, the complex nature of organisational fields and the process of change within these fields.

A number of important perspectives have been gained that may be considered in developing a multi-level model of analysis. Schneiberg and Clemens (2006) described four linkages between institutional fields and organisations that can be considered. These are:

1. direct ties to field-level bodies
2. certification, accreditation or legitimation by an institutional authority
3. connections to or conduits for, institutional models, and

4. proximity, visibility or vulnerability to institutional pressure.

Hoffman (2001) highlighted the relevance of examining ‘occupational communities’, both within organisations and within organisational fields. These communities may be examined to identify how issues are framed in order to be relevant for other communities. This examination can help to explain the differential effects of institutions as they impact on organisational responses.

### **5.7 Gaps in the institutional entrepreneurship literature**

This chapter has introduced the key features of institutional theory and examined a number of research gaps associated with explanations of institutional entrepreneurship and change. It has highlighted that, since the notion of institutional entrepreneurship was first introduced by DiMaggio in 1988, institutional researchers have been challenged to explain the way in which actors change institutions when actors are themselves subject to institutional pressures. This is the so-called ‘paradox of embedded agency’. Five explanations for institutional change have been presented, including:

1. exogenous jolts
2. dialectical perspectives
3. performativity as an outcome of practice variation
4. the level of embeddedness and social position of actors, and
5. the social skills of actors.

Hargrave and Van de Ven’s (2006) typology of institutional change models has also been introduced. Their work, and that of other institutional scholars, suggests that collective action models: “examine the construction of new institutions through the political behaviors of many actors who play diverse and partisan roles in the organizational field or network that emerges around a social movement or technical innovation.” (Hargrave & Van de Ven 2006, p. 868). This area has been under theorised and provides an important area for future research.

Some institutional theorists have been critical of the way in which human agency has been depicted as either over socialised or powerless . This has led to calls for institutional researchers to develop more informed and integrated models to examine

institutional entrepreneurship; for example by examining human agency as a distributed and collective phenomenon (Fligstein 2001; Powell & Colyvas 2008; Suddaby 2010b).

The notion of distributed agency has been introduced as an important way of supporting research into collective action models and addressing the critique of institutional scholars that actors have typically been presented as socially determined ‘cultural dopes’ (at one extreme) or as heroic actors able to overcome institutional pressure with relative ease (at the other extreme). A distributed view of agency has the potential to address these shortcomings by focusing on the interactions between different actors that are distributed across “multiple dimensions including space, status and time” (Lounsbury 2007, p. 1007).

Two related research issues were examined to consider their relevance for the design of research that adopts a distributed view of agency (i.e. a perspective that examines the interactions between multiple actors rather than focusing on single actors in isolation):

1. The research discussed a call from institutional researchers for studies to provide more focused attention on individual actors. Since individuals influence the development of institutions and dynamics of institutional change (Lawrence, Suddaby & Leca 2011; Maguire, Hardy & Lawrence 2004; Powell 2008), important insights into the conditions under which individuals might be encouraged to act (Zilber 2012), and the ways in which individuals influence institutional change (Battilana, Leca & Boxenbaum 2009; Fligstein & McAdam 2011; Lawrence, Suddaby & Leca 2011), may be forthcoming.
2. The relevance of multi-level studies linking individual, organisational and field-level change was also examined. Researchers have suggested that in linking micro processes with macro processes, multi-level institutional studies can:
  - provide a more realistic account of institutional dynamics (Hoffman 2001; Barley & Tolbert 1997; Lawrence & Suddaby 2006; Powell and Colyvas 2008; Schneiberg et al. 2006; Suddaby 2010)
  - provide specific insights into the work of institutional entrepreneurs

(Battilana, Leca & Boxenbaum 2009; Reay et al. 2006), and

- demonstrate that their responses are not strictly determined by the influence of institutions (Hoffman 2001).

## **5.8 The three-level change model**

### **Characteristics of the model**

The review of the energy efficiency, institutional entrepreneurship and institutional theory literatures in this and previous chapters has informed the development of the model presented in Figure 5.3. Figure 5.4 incorporates the research questions into the model. The model has four key characteristics. The following paragraphs describe these characteristics and reference the relevant sections of the literature review in this and preceding chapters that inform model development.

#### ***Characteristic 1: The model supports multi-level analysis***

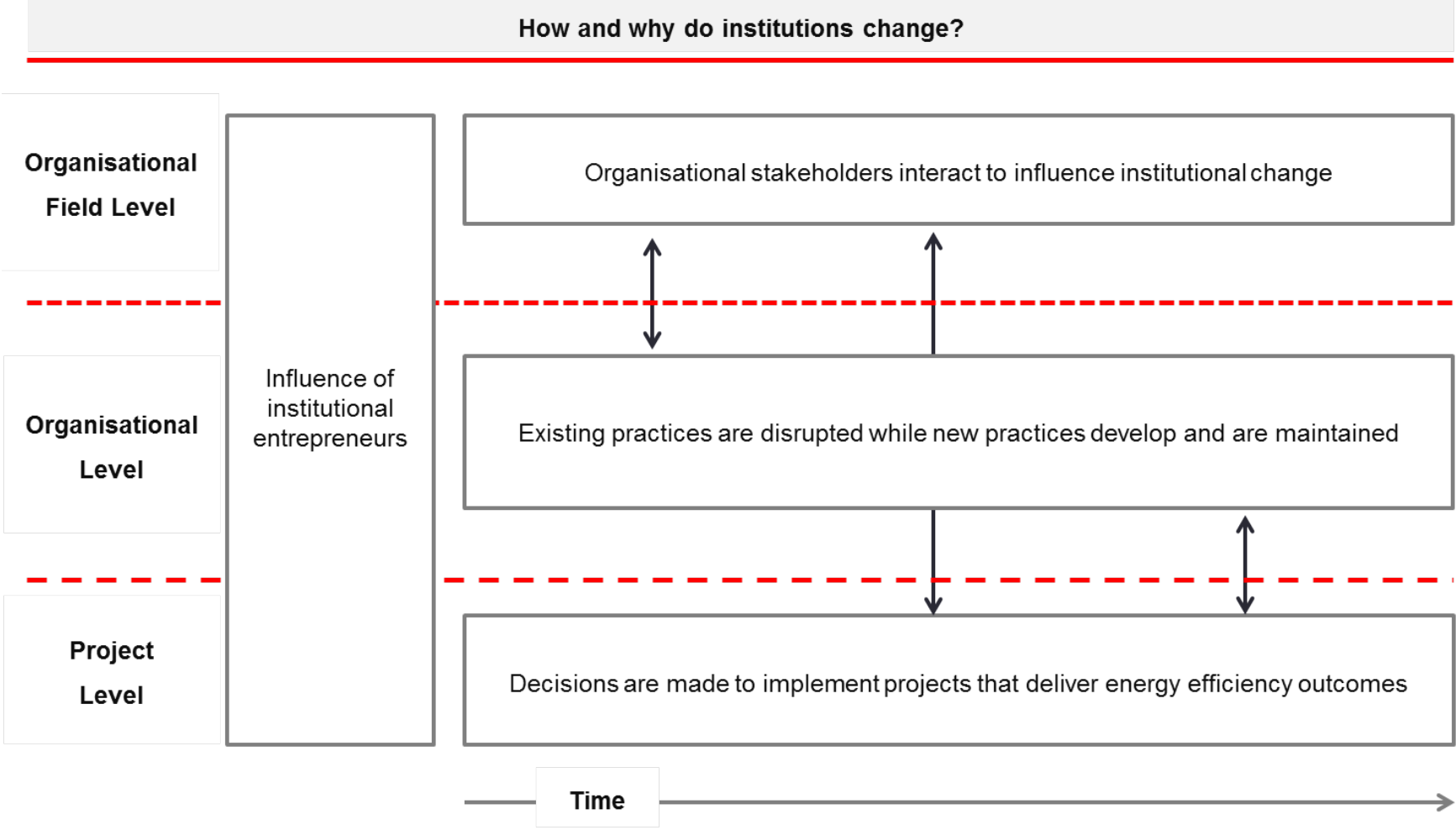
Chapter 4 identified the various theoretical perspectives and levels of analysis that researchers have applied to examine the barriers to energy efficiency improvement in organisations. The review concluded that analysis across multiple levels of analysis could provide new perspectives on the causes of the energy efficiency gap in organisations and how they can be resolved (see Chapter 4, Section 4.7). The review of the institutional literature in Chapter 5 has supported this approach. For example, Section 5.6 explained that institutional theorists support multi-level analyses as it can provide more comprehensive accounts of institutional dynamics than are typically achieved through single levels of analysis (Barley & Tolbert 1997; Powell & Colyvas 2008; Schneiberg & Clemens 2006).

The three levels of analysis selected for this study are the:

1. organisational field level
2. organisational level, and
3. project level.

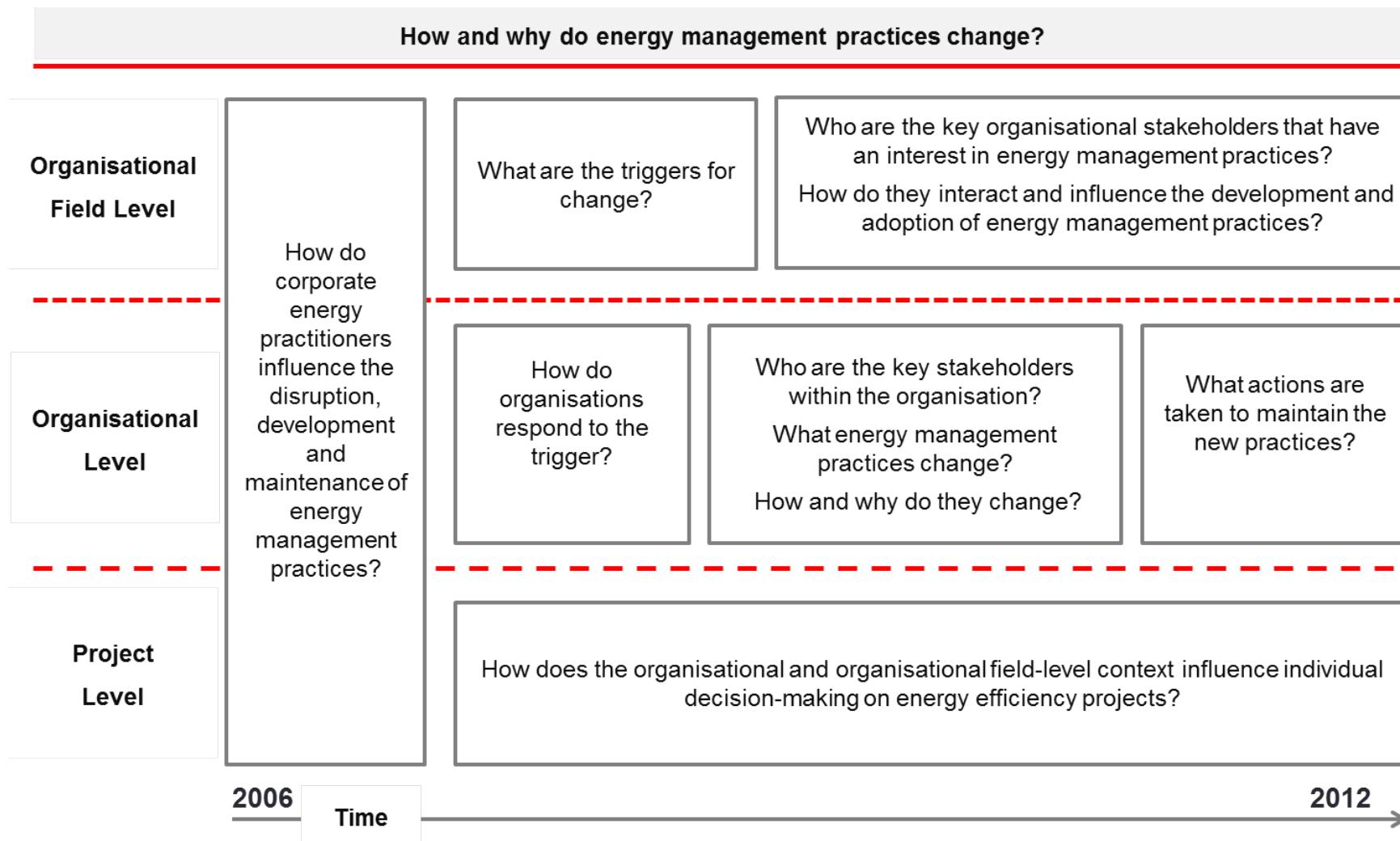
The rationale for selecting these levels of analysis is presented in the summary below.

**Figure 5.3: Three-level model to examine institutional change**





**Figure 5.4: Three-level model applied to the case of changing energy management practices in Australia**



### *Organisational field-level analysis*

A strength of organisational field-level analysis is that it can highlight the interactions between multiple organisations with common interests (Powell 2007). Analysis at the organisational field level can build on and extend recent studies in the energy efficiency literature that examine interorganisational influences on an organisation's energy efficiency performance (see Chapter 4, Section 4.6; examples include (Biggart & Lutzenhiser 2007; Palm & Thollander 2010; Warren-Myers 2012)). Further, analysis at the organisational field level can highlight the combined effects of multiple government policies that aim to influence the adoption of energy management practices – an important issue that was highlighted in Section 3.4.

### *Organisational-level analysis*

Organisational-level analysis is appropriate since it is at this level that organisations primarily apply energy management practices (see Chapter 3, Section 3.3). Further, there remain unresolved issues in the existing energy efficiency literature with respect to the dynamics by which external stakeholders motivate the development and adoption of energy management practices at the organisational level (see Chapter 4, Section 4.5).

### *Project-level analysis*

The analysis of individual decision-making at the project level has received significant attention from researchers adopting neoclassical economic and behavioural perspectives (see Chapter 4, Section 4.3, and Section 4.4). It is at the project level that the benefits of energy management practices are realised as projects are implemented to deliver tangible outcomes. However, it is unclear how stakeholder dynamics at the organisational level and organisational field level influence individual decisions to implement energy efficiency projects (see Chapter 4, Section 4.4.1) and the influence that individuals with responsibility for energy efficiency improvement within organisations have on changing energy management practices.

The model will also examine interactions between each of these levels. For this reason the arrows shown in the model illustrate bidirectional influence (see Figure 5.3)

***Characteristic 2: The model aims to expose the skills and strategies of individual institutional entrepreneurs***

The review of energy management practices has highlighted the important influence that individuals with responsibility for progressing energy efficiency improvements in their organisations can have on the adoption of effective energy management practices (see Chapter 3, Section 3.3, and Section 3.4). However, energy efficiency policies that encourage the establishment of an individual with responsibility for energy efficiency improvement may contribute to unintended consequences. For example, organisations may allocate the role to a person with insufficient skills (Ates & Durakbasa 2012) and/or organisations may approach energy efficiency as a compliance activity, rather than as an opportunity to improve their business performance. This can make it difficult for an ‘energy manager’ to implement energy management practices (Shen, Price & Lu 2012).

The model aims to provide insights into the strategies and skills that successful institutional entrepreneurs apply to facilitate institutional change. In Chapter 5, Section 5.2, institutional entrepreneurs were introduced as “change agents who actively participate in the implementation of changes that diverge from existing institutions” (Battilana, Leca & Boxenbaum 2009, p. 70). Specifically, this thesis will examine how corporate energy practitioners may act as institutional entrepreneurs by disrupting, developing and maintaining new energy management practices. This thesis defines a ‘corporate energy practitioner’ as an individual who:

- has a corporate role in a large energy consuming organisation
- is responsible for improving the overall energy efficiency performance of their organisation and ensuring that legislative requirements are met, and
- has visibility and influence across multiple operating sites within their organisation. This might include factories, buildings and a mobile fleet (e.g. trucks and/or cars).

Practitioners exhibiting these characteristics may also be responsible for other issues; for example, corporate sustainability, operational management or environmental management.

***Characteristic 3: The model accounts for the interactions between multiple stakeholders as they influence institutional change***

The energy efficiency literature review has highlighted how influences on energy management practices in organisations are complex in that they involve multiple internal and external stakeholders (see Chapter 3, Section 3.4). The review of the institutional theory literature has highlighted how examining the interactions between multiple stakeholders can provide new perspectives on the way stakeholders interact to create institutional change (see Chapter 5, Section 5.4). The model will provide a mechanism to analyse *who* the stakeholders are at each level of analysis and *how* they interact. It will also reveal the way in which the stakeholders directly and indirectly influence change in energy management practices.

***Characteristic 4: The model examines the dynamic process of change over time***

The energy management literature has highlighted that researchers have examined energy management practices as a static phenomenon (see Chapter 3, Section 3.3). By examining the process of change over time, the model aims to identify the dynamic changes and interactions between stakeholders as they occur across the institutional lifecycle; that is, from the disruption through development and maintenance of energy management practices.

**Incorporating the research questions into the model**

Figure 5.4 illustrates how the research questions are incorporated into the model. For clarity, the origin of each of the research questions is summarised here.

The primary question is: *How* and *why* do energy management practices change? This question emerged from the review of existing energy management practices which highlighted the fact that limited research has been carried out that examines the development and adoption of energy management practices in organisations as a dynamic phenomenon (see Chapter 3, Section 3.3). By examining how and why existing practices are disrupted and new practices develop and are maintained over

time, this research will contribute new perspectives on the dynamic process of institutional change and will provide practical insights into how government policymakers can support the adoption of effective energy management practices in organisations .

The secondary questions that emerged from the literature review support examination of the dynamics of institutional change. These are set out and discussed in the following paragraphs.

***How do corporate energy practitioners influence the disruption, development and maintenance of energy management practices?***

As discussed previously, corporate energy practitioners are in a unique position to influence change across each of the three levels (i.e. the project, organisational and organisational field levels) identified for this analysis. Analysis of the way in which these levels influence change will form an important part of the study.

***Who are the stakeholders that influence energy management practices and how do they affect change?***

This question responds to calls from institutional researchers to provide more comprehensive accounts of institutional change by examining the individual and collective influence of multiple stakeholders involved in disrupting existing institutions and shaping emerging institutions (see Chapter 5, Section 5.4). This question will be applied at both the organisational and organisational field level in the model. Then, at the project level, the influence of these stakeholders on individual decision-making will be examined.

***What are the triggers that precipitate changes in energy management practices?***

This question considers how institutional change begins and/or is accelerated (see Chapter 5, Section 5.3). At the interorganisational level, this involves consideration of whether the EEO legislation played a substantial role as a trigger and what the additional influences were that occurred over the study period. At the organisational level, the response by large energy consuming organisations to these triggers will be investigated.

## 5.9 Summary and conclusions

This chapter has developed the theoretical framework and a model to address the research question: *How* and *why* do energy management practices change? The key characteristics of the model are that it:

- supports analysis within and across the organisational field level, organisational level and project level
- exposes the skills and strategies of individuals as institutional entrepreneurs
- accounts for the interaction between multiple stakeholders as they influence institutional change, and
- examines the dynamic process of change over time.

Chapter 6 outlines how this thesis applies the model to examining the case of changing energy management practices in Australia between the years 2006–2012.