7 Transitioning through a climate emergency: local governments transforming systems of practice

Abstract

Declaring a climate emergency and developing actions to enact it requires local governments to consider whether business-as-usual climate governance practices will be able to deliver the accelerated large-scale emissions reduction required. While early local government climate emergency strategies recognise the need to expand beyond a focus on the roles of individuals and address systemic matters, there is little guidance for councils as to how this is to be achieved.

In this chapter, I propose that transition management offers a collaborative and deliberative methodology to develop a process to enact change within systems of practice. I suggest that situating governance practices within this process will allow practitioners to zoom in and out between the specific level of practices and the systemic. To consider how this might be applied, I examine the role and activities of local government within the energy provision system as it undergoes a transformation from fossil-fuels to renewables.

7.1 Introduction

Guidance and initial experimentation by local governments suggests that governing in a climate emergency has distinct differences from what might be considered business-as-usual climate governance. A climate emergency response is characterised by four primary principles: an increased need to reduce greenhouse gas emissions faster than previously, the adoption of new roles for the community in advocating to other tiers of government and co-managing the climate emergency response with council, the embedding of climate change through all local government policies and operations and an increased emphasis on collaboration with key actors (Sutton 2018; Martin 2020). Enacting these principles has implications for the relationship between local governments and the communities they serve, whether directly, such as new specified roles, or indirectly through changes to local government climate governance and internal process practices.

In this thesis, I have demonstrated that employing practice theory to understand and potentially shape Australian local government climate governance practices provides practitioners with a rich view of what they are doing, why they are doing it and whether it is achieving their goals. If, as suggested in Chapter 6, business-as-usual climate governance practices are insufficient to meet the demands of a climate emergency, there is a need for a new framework that shapes how climate governance practices can be re-configured. Such a framework must be capable of application to relevant systems of practice

(such as energy provision and transportation), accommodate a range of stakeholders and their views, including members of the community, and afford opportunities for reflection upon what outcomes are being sought and whether climate governance practices are sufficient to achieve those outcomes. In addition, it should create pathways for action that meet the criteria required to create solutions to climate change as a super wicked problem: that policies and interventions reduce emissions rapidly in line with the requirements of climate science and that they cannot be easily reversed (Levin et al. 2012).

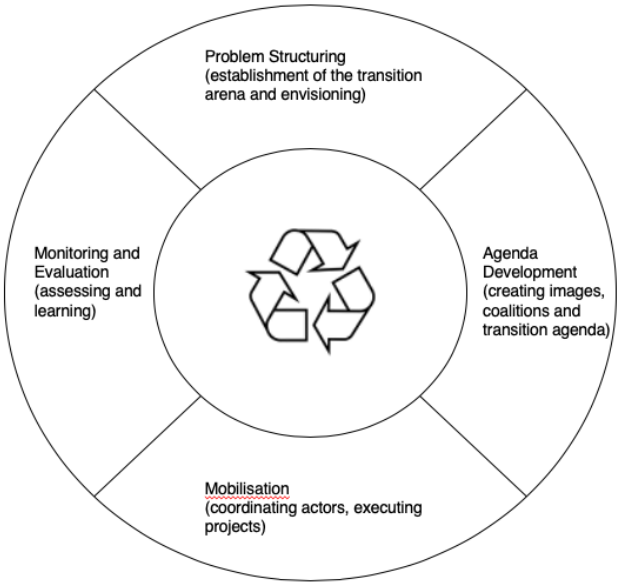
To develop such a framework, I draw upon transition management and approaches that seek to bridge transition theory and practice theory (Watson 2012; Rauschmayer et al. 2015). Doing so highlights the nature of relationships between practices and the systems within which they sit; for local government policymakers and practitioners this includes an understanding of their own governance practices and those within the systems of practice they are seeking to alter. Consequently, a suitable governance framework must allow for zooming in and zooming out between these practices and their systems (Nicolini 2009).

7.2 Transition Management and Climate Emergency Governance

Transition management is designed to assist policymakers and practitioners understand their position with regard to specific socio-technical systems, create a space for different actors to come together to construct and manage a transition within the relevant system to a more sustainable setting (Rotmans et al. 2001; Upham et al. 2014; Kemp et al. 2007). Transition management has been applied across a range of settings, primarily but not exclusively in the Netherlands, including energy supply, local economic development and waste management (Loorbach and Rotmans 2010; Kemp et al. 2007; Scholz et al. 2009). While transition management has not been consciously applied within the climate change responses of Australian local governments, some elements have been incorporated in council strategies and activities, such as developing visions for their communities, working with stakeholders beyond their municipal boundaries and the creation and support of niche experiments (Moloney and Horne 2015; Mey et al. 2016). What is missing are structured opportunities to reflect upon their agency in relevant systems, consideration of how these systems might be altered and what role local governments and collaborative actors might play in bringing this about (Loorbach 2007; City of Melbourne 2008; Moreland Energy Foundation 2018; City of Sydney 2013).

Transition management posits a framework in which the ambitious targets and lofty statements of climate emergency motions and strategies can be converted into action. As noted in the literature review (Chapter 2) the framework comprises four stages: problem structuring, agenda development, mobilisation and project work, and monitoring and evaluation (Loorbach 2010), as set out in Figure 7.1:

Figure 7.1: Transition management cycle (reproduced from Loorbach 2007)



The first stage, *problem structuring*, brings together stakeholders to identify and structure the problem, create a vision of what a completed transition will look like and establish a transition arena through which the process will be managed. The second stage, *agenda development*, brings together relevant actors to develop an agreed plan. The plan is mobilised in the third stage through the *development and delivery* of projects and finally, the transition is *evaluated* as to its effectiveness (Loorbach 2007).

Through its emphasis upon the creation of a transition arena in which a number of collaborating actors work together to achieve joint objectives (Nevens et al. 2013) transition management shifts the focus away from local government bearing sole or primary responsibility for achieving substantial emissions reduction or adaptation to projected climate impacts. This aligns with Piotrowski et al.'s (2013) framing of local governments as 'co-pilots' in transitions, developing fresh ideas about how to establish and work towards agreed environmental targets. Transitions within socio-technical systems can be thought of as resulting from changes in practice and the relations between different practices, including between governance practices and everyday practices performed by households (Watson 2012). Watson's (2012) *system of practices* positions practices within existing socio-technical systems, broadly aligning with the elements of the multi-level perspective (MLP):

> "Practices thus constitute the relations comprising different levels of the MLP, at 'regime' as well as 'niche' levels. So, socio-technical systems …. can usefully be recast as systems of practice."
>
> (Watson 2012, p. 493)

Extending this concept of positioning of practices within socio-technical systems, in this chapter, I position climate governance practices within the process of transition management. To understand

what this might look like, I apply it to a localised transition within the Australian energy provision system of practices. Despite having a limited role within this system, Australian local governments have contributed to an ongoing transition within the energy provision system, shifting from fossil-fuel based energy production practices to a greater reliance on renewable energy, particularly in the form of the practice of distributed renewable energy production (Mountain and Szuster 2014). As noted in Chapter 5, the rapid adoption of this practice has also subverted existing forms of local government climate governance, particularly community engagement based upon notions of a pro-socially motivated, collective response to climate change (Meiklejohn et al. 2018).

Here, I consider how using transition management may help councils accelerate that activity to achieve the objective of large-scale, rapid reductions in greenhouse gas emissions in alignment with the demands of declaring and acting on a climate emergency. Reflecting the still experimental nature of climate emergency governance, I pay particular attention to practices performed within the preparatory phase of the transition management cycle: problem structuring, establishment of the transition arena and envisioning. These activities are closely interwoven with one another. For example, the nature of the problem will influence the kind of transition arena that will be developed, who will participate and the vision of a changed regime that will be produced.

Within each stage of this initial phase of the transition management cycle, I explore how local government climate governance practices currently interact with practices in other socio-technical systems and what changes in climate governance will mean for these relationships. To do this, I draw upon 25 local government strategies developed following council motions declaring a climate emergency. As per Chapter 6, these strategies were selected through a process of desktop research and knowledge gleaned through my role as coordinator of Climate Emergency Australia, a national network of declared councils (Northern Alliance for Greenhouse Action 2020). The strategies were analysed with a view to identifying elements of transition management (such as an understanding of the systems of practice under consideration and evidence of collaboration) as well as potential barriers to the adoption of transition management.

7.3 Climate Emergency Driven Renewable Energy Transition Management

Australian local governments have a history of supporting the expansion of distributed renewable energy in the form of rooftop solar, community energy projects and investment in large scale renewables, including solar and wind farms (Mey et al. 2016). The performance of climate governance practices to support this expansion aligns with ambitious emissions reductions targets set by local governments (Meiklejohn et al. 2018). More recently, the advent of the climate emergency movement has created additional impetus to accelerate this expansion and reduce household-based emissions more rapidly than might have previously been considered (Spratt 2019).

Adopting a transition management approach, local governments can frame their efforts to create an accelerated uptake of renewable energy within their municipalities as a localised transition, much as similar approaches have been adopted at the regional scale for energy, health and waste management (Loorbach and Rotmans 2010). By performing the governance practices to manage a localised transition, local governments can remain cognisant of their likely impacts and influences on a broader transformation of the Australian energy provision system. While local governments presently play a limited role in this transition, delivering a successful transition that results in a rapid shift to renewables at the municipal or regional level can increase that role and hasten broader systemic change.

Turning to the transition management cycle, in the first stage, *identifying and structuring the problem*, I examine the system of practice local governments are seeking to influence: energy provision, including identification of the key actors and their practices. I also consider the activities proposed by local governments in their climate emergency motions and strategies to increase the proportion of renewable energy within this system. In the second stage, establishing a *transition arena*, I consider the challenges facing local governments while in the third stage, I outline how local government and relevant actors within the system might come together to *envisage* an altered energy provision system of practices and the role of existing climate emergency visions in fulfilling this role.

7.3.1 Identifying and Structuring the Problem

In seeking a transition to an energy provision system of practice away from one in which the primary energy source is fossil fuels to one dominated by renewable energy, it must first be recognised that the system itself is the result of historical socio-technical processes and decisions made over time. The Australian energy provision system is a product of a longer historical transition away from localised sources of fuel, such as wood, to large-scale centralised production based primarily on coal and gas (and in some circumstances, hydro-electricity) (Saddler 2015). This system is already in the midst of another transformation, shifting away from a reliance on fossil fuels to a broader mix in which renewables play a greater role (Mountain and Szuster 2014). As a consequence, the problems to be identified are less about whether there should be a transition to renewables but the pace and character of that transition and what part local government should play in influencing these factors.

Despite lacking a formal governance role, Australian local governments have already contributed to this transition towards renewables through experiments, such as supporting the early uptake of rooftop solar on households and community energy projects (Meiklejohn et al. 2018; Mey et al. 2016). The issue now is whether existing local government climate governance practices are sufficient to drive a more rapid transition in energy provision in line with the expectations of an effective response to the climate emergency. Identifying and structuring the problem requires the establishment of a clear

picture of the form and nature of the energy provision system within which local governments operate.

In Australia, this system is constituted by practices of generation, transmission, distribution, retail and governance. Energy *generation* practices have traditionally relied upon abundant fossil fuel in concentrated deposits to provide affordable energy, albeit one with significant environmental costs (Warren et al. 2016). Generation practices have been characterised by materials including large-scale, coal-fired power stations that, in turn, influenced the performance of *transmission* practices that deliver high voltage electricity carried over long distances from power stations to local low voltage networks, where *distribution* practices are performed by private and state-owned actors (Abbott 2006). For both gas and electricity, the alignment of transmission and distribution infrastructure with large scale, fossil-fuel based generation practices increased the vulnerability of a highly centralised system to a shift to more distributed sources based upon renewable energy (Elliston et al. 2013). However, the historical positioning of transmission lines running between cities and fossil fuel deposits has also constrained the development of renewable energy production practices, particular large-scale wind and solar farms (Wright 2012; Effendi and Courvisanos 2012).

Retail practices influence energy dependent household practices through the imposition of price signals. These have contributed to growing the popularity of alternatives to fossil-fuel based energy provision, such as rooftop solar, as the price of grid-supplied energy increased (Carbon and Energy Markets 2015; Thwaites et al. 2017). Finally, *governance* practices, performed by governments and regulatory bodies, include policy development and delivery, legislation and the regulation of the actions of providers (Haines and McConnell 2013). Competing objectives (particularly in responding to climate change) between different actors engaged in energy provision have resulted in shifting policies supporting or undermining the spread of renewable energy (Haines and McConnell 2013; Mountain and Szuster 2014; Chubb 2014).

This system of practices has also been shaped by the relationship between providers (generation, transmission, distribution and retail actors and their practices) and households. In particular, Australian energy generators and distributors (broadly akin to electricity utilities in other countries) and households are locked together in an interdependent relationship in which the practices performed by one influences the practices performed by the other (Chappells and Shove 2000). The capacity of distributors to deliver affordable and reliable energy has allowed households to adopt energy-consuming materials required for everyday practices (Shove and Walker 2014). Evolving expectations as to how household practices are performed, including the ability to perform them at a time and in a form of their choosing, have in turn shaped energy provision practices (Bulkeley et al. 2015; Chappells and Shove 2000; Nicholls and Strengers 2015; Strengers 2010; Strengers and Maller 2012).

In considering their approach, local governments seeking to reduce greenhouse gas emissions more rapidly resulting from household practices should be conscious that governance practices they

perform must also seek to accelerate the existing transition within the energy provision system from fossil-fuels to renewables. This requires an increased focus on the system, as climate emergency local governments have already demonstrated in their strategies. For example, the City of Melbourne seeks to influence energy production practices by collaborating with "other cities, investors and superannuation companies to accelerate divestment from fossil-fuel energy supply" (City of Melbourne 2019, p. 29). Other climate emergency local governments propose actions that challenge the current centralised form of the energy provision system, such as supporting and investing in virtual power plants and microgrids (that allow households to share excess renewable energy), support for community energy projects and the installation of public electric vehicle charging infrastructure (City of Greater Dandenong 2020; Shire of Augusta-Margaret River 2020; Inner West Council 2019; Brimbank City Council 2020; City of Newcastle 2020).

Therefore, identifying and structuring the problem within the energy provision system requires the performance of governance practices that will drive accelerated change towards renewables within the system. For local governments, this is not just about prioritising those practices that generate the largest amount of renewable energy, but which also shift the relationships between practices that comprise the system. It also requires establishing a new shared governance space through which the transition can be managed.

7.3.2 Establishing the Transition Arena

Identifying and recruiting transition partners requires consideration of what each can contribute, not only in terms of driving change within the energy provision system but also in the governance of that transition (Loorbach and Rotmans 2010). Participants must have the capacity to act on behalf of their group or organisation as well as advocate internally for the vision jointly developed through the process (Loorbach 2007). Choosing the right participants within local government presents a dilemma; while senior management may be effective at representing their council, they may also find it difficult to break free of governance cultures that reinforce a conservative approach (Jones 2011; Rickards et al. 2014). Councillors may find it easier to bring an external perspective to their council's role in transition management and have the capacity to enact change but are at the vagaries of regular elections that make it difficult for them to sustain long-term involvement in a transition.

Critical to the success of a localised transition, is the creation of an arena in which other stakeholders share equal responsibility for driving change. Shifting the energy provision system of practices to a more sustainable footing aligns with the climate emergency impetus to influence 'outwards' but also requires the development of new collaborations and, potentially, new ways of working (Dunn 2018). While local governments have experience in working with stakeholders from other government levels as well as from the community (Tilbury et al. 2005; Cuthill 2002), in seeking to drive large-scale

climate change responsive transitions they are likely to have to contend with big private companies that tend to dominate the domains in which large-scale sustainability transformations are required. This is true of the Australian energy provision system as set out in the first phase of the transition management cycle – identifying and structuring the problem.

In actively promoting and supporting the rapid growth of renewable energy, local governments may find themselves contesting with electricity distributors and retailers with conflicting motivations (Haines and McConnell 2013; Mey et al. 2016). In some circumstances, the relationship with existing actors in the energy provision system may be supportive or, at worst, passive in driving a shift towards greater use of renewable energy; in others, actors may be antagonistic either to the proposed transition in its entirety or to components. For example, fossil-fuel-based energy generators will resist a shift to a renewables dominant system (Geels 2014). Others may initially resist emergent transitions but may later co-opt these to drive change at a broad scale (Geels 2011).

In the climate emergency strategies developed so far by Australian local governments, direct engagement with energy provision system actors is minimal. Councils identify the need to advocate to governments and distribution companies both with regard to specific measures, such as impediments to the installation of rooftop solar, as well as broader reform of the system, such as the need for a national renewable energy target (City of Yarra 2020; Brimbank City Council 2020). Engagement with retailers is limited to encouragement of households to seek 100 per cent renewable energy options (City of Darebin 2017; Bass Coast Shire Council 2020). At present there is no evidence in local government climate emergency strategies of a shift to deeper engagement and collaboration with existing system actors as part of a structured localised transition.

Local government transition management practitioners may also consider engaging end users in a transition arena, such as households and businesses, to influence current energy provision systems. This approach underpins community energy projects and the adoption of technologies to share renewable energy at the local scale (Bass Coast Shire Council 2020; Inner West Council 2019; Brimbank City Council 2020). However, local governments have also demonstrated a willingness to test governance practices that drive large-scale emissions reduction and, in doing so, shift how the domestic energy provision system is structured, such as the City of Melbourne's Renewable Energy Purchasing projects bringing together businesses to invest in large-scale renewable energy (Milman, 2014) and the Northern Alliance for Greenhouse Action's exploration of a retail role for local governments (Dunn 2018).

Despite these experiments, opportunities have been missed to create the kind of holistic, coordinated, and collaborative approach inherent in transition management (Loorbach 2007). For example, Darebin City Council's *Solar Savers* program (using rates-based payments as a finance mechanism to increase access to rooftop solar for low-income households) (Meiklejohn et al. 2021), could have been positioned to better integrate with other practices, such as advocacy for specific changes to current

market structures and regulations (Mey et al. 2016). In this instance, a transition arena could have been established to specifically explore the creative use of financing mechanisms, including the identification of and collaboration with new stakeholders, such as banks, investors, electricity distribution companies, renewable energy and storage companies, energy trading platforms, state governments and Federal renewable energy financing agencies (Hua et al. 2016; Geddes et al. 2018; Young et al. 2019).

7.3.3 Envisioning

Finally, given the complexity of relationships and varying motivations of different actors engaged in energy provision systems of practice, whether renewable or fossil fuel-based, establishing a common vision for the transformation of the Australia energy system is likely to be challenging. The text and images emerging from the climate emergency movement represent a distinct step away from the visions typically set out in local government climate change strategies. The latter present visions of low-carbon societies (e.g. use of sustainable transport, urban greenery, solar powered dwellings) that are achievable through time-limited emissions reduction (Marrickville Council 2014; City of Moreland 2014; City of Banyule 2013; Gold Coast City Council 2009). By contrast, the climate emergency movement focuses on threats associated with climate change, designed to generate action rather than present a vision of what a 'safe climate' world would look like (Aidt 2019). It is debatable how useful a threat-based vision will be in developing and sustaining a local transition to the energy provision system.

What is clear is that different ambitions will result in different transitions. For example, if a local government is driven primarily by the need to reduce emissions as quickly as possible, a council may favour investment in large-scale renewables outside the municipality (McKenry 2017). This would require adopting energy provision practices previously the remit of other actors, such as energy production and retail practices (Dunn 2018) but may deliver large emissions reduction possibilities to a larger audience, meeting the super wicked solutions criteria of being able to spread rapidly to new audiences.

Alternatively, a local government may wish to shape a transition in which ownership of renewables primarily resides on the roofs of local households and businesses, perhaps supporting emerging forms of energy democracy (Burke and Stephens 2017). Adopting this objective results in a very different kind of transition with the need to engage with different actors. It would likely favour community energy and renewable energy sharing technology-based interventions, requiring a strong degree of community engagement (Meiklejohn et al. 2021). Such an approach potentially addresses key critiques of transition management and the climate emergency movement, the former as not including a broad audience in its deliberative processes and the latter as having the potential to undermine democratic norms (Williams 2019). In addition, it has perhaps a stronger potential than an 'emissions

reduction at all costs' approach to meet the super wicked solutions criteria of being able to embed itself within the target audience.

7.4 Conclusion

The advent of the climate emergency movement has not only created a fresh sense of urgency amongst local governments responding to climate change; it has also raised questions about how local governments can increase the scope and accelerate the pace of their response as an emergency response demands. As a growing number of local governments seek to translate climate emergency ambitions into action, they need guidance on how this can be achieved in a structured manner in which governance practices are efficiently deployed to achieve desired transition outcomes. Employing a transition management approach provides local governments with a useful, purposeful approach to act collaboratively and reflexively as they reposition and reframe their role in this new era of a climate emergency. The ability of local governments to manage this transition arena will be challenging and highly contested. These new roles as a pilot and mobiliser stand in contrast to business-as-usual responses constrained to those service areas under their direct influence, characterised by limited regulatory powers, infrastructure provision, resource constrained service delivery, community engagement and advocacy. Working collaboratively and deliberatively with a broad range of stakeholders will be necessary to reconfigure the systems of practice that contribute to the production of greenhouse gas emissions.

The adoption of transition management by Australian local governments would not be without challenges beyond those inherent in the process. For climate emergency activists, the perceived lack of urgency in the notion of 'transitioning' underpinning the transition management approach, may prove inadequate given the more transformative and radical changes implied by an emergency response (Wesely et al. 2013). Implementing rapid changes in process measures such as changes in regulations, the development of new networks, the creation of new opportunities for experiment provides a richer picture of what is going on within a transition. They also reveal the very difficult, often slow and contentious work required to effect change.

In practice, transitions can deliver short-term outcomes that can contribute to long-term shifts. However, transitions that only focus on short-term, incremental changes may also hamper the delivery of long-term strategic objectives (Kern and Smith 2008). While an emergency response may be required to mobilise action, speeding up the process raises the real risk of overlooking issues of justice and equity in the process (Cretney 2019; Hendriks 2009).

Declaring and acting upon a climate emergency demands the rapid acceleration and expansion of both the scope and scale of local government responses to climate change. As established in Chapter 6, business-as-usual forms of climate governance practices may be insufficient to meet these demands.

In this chapter, I have proposed a transition management approach in which governance practices are positioned within each stage of the process cycle with a view to changing the form and character of the relevant system of practice, in this case energy provision. This has taken the form of an exploration of where leading Australian local governments sit currently and the considerations associated with adopting such a process. To turn this into an active framework capable of achieving a climate safe future, as identified by the climate emergency movement, will require further exploration, both by researchers and by local governments.