Just transition management: Balancing just outcomes with just processes in Australian renewable energy transitions

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HIGHLIGHTS

- A fusion of the transition management and just transition concepts is proposed.
- This is applied to a nested case study of an energy transition in Australia.
- The framework reveals a just transition is possible but not guaranteed in this case.
- The framework is shown to be useful in highlighting barriers to energy justice.
- Just transition management could support energy justice in transitions globally.

ARTICLE INFO

ABSTRACT

Transitioning electricity generation sectors to renewable energy is a necessary element of climate change mitigation but a challenging one with years of technical and social lock-in creating considerable inertia and a pace of change insufficient to meet the task. Transition management has emerged as a promising approach to proactively manage and accelerate transitions in sectors like energy and water and has the potential to do so in manner that would help secure energy justice. However, the approach has been criticised for ignoring the political dynamics of transitions, risking procedural and recognition injustice for traditional energy production regions while increasing opposition to a transition. This paper uses a qualitative case study approach to understand how a transition to renewable energy generation could be achieved in a way that secures energy justice for traditional energy production regions like those of Gladstone in the Australian state of Queensland. The paper augments the transition management approach with the "just transitions" concept, which has emerged from labour movements as a means to mitigate negative impacts on workers and communities in traditional energy production regions, to create a "Just Transition Management" framework that is applied as a diagnostic tool to the case study. While results suggest a transition is imminent within Queensland, a lack of: consistent, supportive federal policy; long-term visions, and a clear process leaves it at risk of being captured by the powerful incumbent resources sector utilising an "environment vs. jobs" narrative. Yet, the results also suggest that adopting a just transition management approach has the potential to successfully resist the influence of the resources sector, by providing cheap, secure renewable energy and supporting affected workers into roles in the renewable energy sector using a reflexive, representative network governance approach. Data analysis reveals how the application of just transition principles has already engaged communities and unions that were previously sceptical of renewable energy. Overall, this study suggests that the just transition management framework assists in identifying the political barriers to transitions and energy justice more broadly, while also providing a management approach which creates powerful niche actor-networks to counter the narratives and influence of the incumbent resource sector. Thus it could support successful transitions that achieve the distributional, recognition and procedural justice needed for energy justice globally.

1. Introduction

The transition of electricity generation sectors towards renewable energy is broadly understood to be an urgent and necessary element of climate change mitigation [1]. This is particularly true of developed countries, such as Australia, which historically have been the largest

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producers of carbon emissions. These countries also have greater fiscal resources available to underpin a transition than developing countries, where energy poverty is still widespread [2]. However, such transitions have proven challenging, with years of technical and social lock-in creating considerable inertia [3–4], and Australia is no exception despite its huge renewable energy potential [5].

Transition management has emerged as a proactive approach to managing and accelerating transitions in socio-technical sectors like energy and water [6]. As such, it has considerable potential to support the transitions that are necessary to achieve climate justice. Moreover the approach contains explicit commitments to ensure affordability and reliability of supply [7] which is consistent with distributional justice, as well as to having a deliberative, democratic and representative process that is consistent with recognition and procedural justice. Distributional, recognition and procedural justice are considered essential elements of energy justice (e.g. see [8]) and so it seems the approach has the potential to help secure energy justice in energy transitions.

However, the approach has been criticised for ignoring the political dynamics of and need for democracy in transitions, risking recognition and procedural injustice for traditional energy production regions and potentially failing to ensure equitable energy access [9–11], risking distributional injustice as a result. These concerns resonate strongly with critiques of anecdotal energy transitions, which lacked representation in energy decision-making [12], thereby failing to achieve recognition and procedural justice. The authors argue that energy justice should be a central concern for advocates of transition management approaches, with a failure to achieve energy justice potentially stalling transitions, eroding public support or risking capture by incumbent actors [13], jeopardising the chance of a full transition.

Engagement with the concepts of energy justice may not be sufficient for it has been acknowledged that greater exploration of the political economy of energy justice is required [8,14]. To address the need for a stronger recognition of politics in transition management approaches and the energy justice literature, this paper proposes augmenting the transition management framework with the concept of 'just transitions'. This concept has entered the discourse of labour movements and Environmental Non-Government Organisations (ENGOs) globally, asserting transitions to more sustainable modes of production can balance climate justice outcomes with procedural justice (see [15]) in addition to, as the authors argue, distributional justice. This is achieved through an inclusive participatory process and mitigating the impacts on those in vulnerable sectors through re-training to enter "green" jobs, for example, while ensuring equity of energy access [2]. This paper posits that just transitions scholarship can contribute to achieving successful transition management that embodies the principles of energy justice by encouraging explicit political considerations, providing democratic legitimacy and turning potential barriers in the form of affected workers, unions and communities, into advocates.

This paper, in part, responds to assertion made by Healy and Barry [14] that the just transitions concept has a potential to build the political sensitivity of the energy justice field and increase the understanding of the distributional impacts of energy transitions. The concept is also regarded as having the potential to overcome prevalent "environment vs. jobs" narratives to bridge the gap between environmental justice groups seeking energy transitions and labour movements in Australian traditional energy production regions such as the Hunter Valley [16].

The central research question posed by this paper is "How can a just sustainability transition to renewable energy generation in the traditional energy production regions like those in Queensland, Australia, be managed?" In answering this question the authors aimed to achieve the following research objectives:

1. Use the concepts of transitions management to establish Queensland's likely transition trajectories.
2. Establish the barriers to a just and sustainable transition for

traditional energy production regions like Gladstone.
3. To explore the potential of a novel conceptual "Just Transition Management" framework to identify approaches to overcome such barriers to secure energy justice in energy transitions.

Australia boasts considerable renewable energy potential, yet has an influential incumbent energy regime and multiple communities that depend on mining and traditional energy production for employment [16–17]. This makes it a great context to test the proposed conceptual framework's ability to recognise and overcome the barriers (political and otherwise) to a just transition. The State of Queensland was selected as a case study following express political commitments to move towards 50% renewable energy generation by 2030 [18]. Drawing on extensive secondary data, this qualitative case study examines how a transition to renewable energy generation could be achieved in Queensland in a way that is socially just for traditional energy production regions. To this end, the paper first outlines the 'just transition management framework' which fuses the transition management and just transition concepts. Next, following an articulation of the research design and case study methods, the conceptual framework is applied as a diagnostic tool to establish whether such a transition is possible and how this may be achieved.

2. Managing sustainability transitions

There has been an explosion in sustainability transitions literature over the last two decades in response to perceived lock-in in socio-technical sectors (e.g. energy and water) impeding a necessary transition to more sustainable modes of production and consumption [6]. Though a number of different frameworks have emerged the interaction between three conceptual levels (macro, meso and micro) is central to the scholarship. The meso level is characterised by the current dominant socio-technical regime that favours optimisation of the current system over transformation and full transition [7,13,19]. At the micro-level are emergent niches that innovate more sustainable modes of production, to which the regime is resistant. However, the transition to more sustainable modes of production generated at the niche level is facilitated when the niche aligns with landscape factors at the macro level, which are outside the regimes control, thereby destabilising the regime and driving a transition [7,13,19].

The transition literature has proposed a number of different frameworks to understand, guide and accelerate sustainability transitions, one of which is transition management [6]. This article focuses on the transition management framework specifically, for it promotes the active management of transitions and has a high potential for democratic, deliberative and representative management of transition [20]. The authors suggest that the democratic potential means it well positioned to accelerate transitions while securing the recognition, procedural and distributional justice acknowledged to achieve energy justice [8]. To address critiques of transition management being more technocratic than democratic (see Section 2.1), the authors propose this approach should be augmented with "just transitions" concepts to realise its full potential for achieving energy justice. This section outlines the two concepts before fusing them into a framework aimed at delivering successful energy transitions that also secures energy justice.

2.1. Transition management

The transition management framework uses a purposive approach to transitions, seeking to nurture niches for greater sustainability and guide them through a series of stages: pre-development, take-off, acceleration and stabilisation [19], see Table 1). A smooth transition is not assured with a number of different end results possible aside from the desired stabilisation of the more sustainable modes of production. Core to the approach is a participatory, reflexive and adaptable network governance approach (whereby a series of transition