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Valuing Public Engagement with Energy System Transitions: The importance of what lies beneath

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Introduction

The importance of public engagement with socio-technical issues has gained increasing salience in the last decade across academia, policy, and industry [1]. Among the reasons for public engagement are the opportunities such activities afford for dialogue between stakeholders and wider publics. Given the right approach, such forms of dialogue can offer a basis for more robust decision-making, and for anticipating potential points of conflict and possibilities for resolution. In the contemporary context of climate change and the imperatives it presents for energy system change, public engagement is likely to be highly important in efforts to move toward new system forms [2,3,4].

Publics are deeply implicated in energy system configurations (e.g. as consumers and producers of energy, as citizens with voting powers, as active protesters or proponents of infrastructures), and will therefore be central to the successful implementation of change processes. Indeed, several commentators have posed that the development of a new social contract – the contract of unspoken reciprocal agreements between state and citizenry – will be key to achieving change of the scale required [5]. In this regard, public engagement is likely to be significant for a number of reasons; not least in developing understanding of public concerns and expectations about system change.

In this editorial, we examine existing debates within public engagement research around energy, opening up insight into some of the key challenges and opportunities. We conclude drawing from our recent research on public engagement with energy system transitions, arguing that central to engagement is a focus on public values and the more general concerns that underlay particular responses.

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Public engagement: debates and developments

In debates around public engagement a shift has been identified from an early focus on providing knowledge to more participatory and inclusive processes, which place emphasis on dialogue and mutual learning. The former focuses on activities that inform or correct perceived deficits of the public (e.g. a knowledge deficit) so that publics can understand decision-contexts and formulate their views based on rational assessment of the evidence. This approach has been extensively criticised; 1) for assuming the neutrality of information and privileging certain forms of knowledge, 2) for discounting the role for values, situational context, and other types of knowledge, and 3) for framing publics as a problem in terms of their ignorance, trust or ambivalence, and engaging in order to correct rather, than to reflect divergent perspectives [6]. More recent approaches to public engagement focus on a two-way interaction between publics and stakeholders. The notions of knowledge, trust, openness and transparency become important principles here, rather than problems to correct.

There are multiple and diverse forms of engagement process, ranging from citizen's juries and deliberative workshops, to consultations and Delphi techniques. Importantly, it has been demonstrated that the type of engagement process does not necessarily guarantee an approach that addresses the problems associated with deficit models [7]. Instead, it is important to pay attention to the processes of framing that occur *within* engagement activities. Stirling highlights a distinction between 'opening up' and 'closing down' in the framing of technological choices or social concerns more generally. Where open framings place emphasis on revealing any open-endedness, contingency and capacity for the exercise of agency, closed framings entail cutting through the messy, intractable and conflict prone diversity of perspectives. This latter approach is regarded as problematic because it does not

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offer the thorough and inclusive approach associated with, but not innate to, more open and dialogic processes.

Public engagement and energy

In the UK's energy context, it is possible to identify distinct forms of public engagement activity. First, there are examples of state or industry led public engagement, most commonly in the form of consultation exercises. Second, there are processes instigated by publics whereby they engage through avenues such as activism, protest, and public inquiries. Third, there are forms of academic research that can be broadly regarded as public engagement. These different forms of engagement intersect in various ways, for example, when academic research arises around a state led engagement process [8].

Academic research involving public engagement with energy has been wide ranging with projects addressing nuclear and renewable energy being particularly well developed [9]. There is also a significant body of research dedicated to examining public engagement with energy consumption across home, work, and transport [10]. Academic research in this area is typically concerned to characterise and understand public concerns with an analytic lens. As such studies within this tradition also offer critical reflection on wider state and industry engagement processes.

Cass and Walker, for example, have pointed to the problematic nature of conceptions of the public held by those involved in renewable energy development [11]. They show how engagement processes in practice were often based on deficit principles (i.e. they were underpinned by an assumption that public opposition was rooted in irrational emotions and misinformation that required correcting), and how modes of engagement that narrowed the space for expression of emotion were increasingly favoured by developers (12). Moreover,

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they show how public concerns were often framed as NIMBY (Not in My Back Yard), positioning publics as having selfish narrowly defined interests. This view of public engagement with energy developments has been widely critiqued with several authors demonstrating that responses are rooted in a much broader range of concerns [12].

Beyond these critiques, other analysts have pointed to the significance of changes in planning processes for public involvement within energy system development [13]. Cowell and Owens highlight how planning processes offer vital spaces for public engagement in ways that allow for wider-ranging debate and challenge some of the assumptions often embedded within development rhetoric (e.g. focusing on supply-led systems instead of demand reduction). They assert that planning processes have historically provided space for challenges to be levelled at top-down development with important implications for sustainability. Of particular significance for the energy sector are the implications for public engagement that arise with the introduction of the national planning statements and the associated planning reforms [14]. Shifting planning decisions about large energy infrastructure to centrally located governance arenas has arguably closed down spaces for public engagement with issues of system development.

Such changes were predicated on the need to develop major infrastructure quickly and avoid problems for economic development created by negative public responses. Here we argue that rather than viewing engagement as a problem to be overcome or as a source of unnecessary delay it should be seen as an integral part of successful energy system development. Previous experience teaches that as spaces for dialogue are closed down so controversy opens up - recent protests in the UK over shale gas and fracking demonstrate one area in which proper and sustained engagement is clearly an important precursor to proposals [15]. Research too, though highlighting complexity in public engagement, indicates that both

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siting processes and demand reduction initiatives which involve local communities at early stages and engage fully with their concerns are often more successful and encounter less delays (16,17). As we enter a period in which major energy system change will be essential to carbon management processes so the significance of public engagement increases and greater space, not less, is required to debate the questions that transitions raise.

Our recent research demonstrates that when given time and space publics offer insightful and considered responses to such complex issues [18,19,20]. This research further underscores the importance of paying attention to the broader concerns and values that underlay particular public responses. In understanding these we find a way into the deeper basis for public contestation and a clearer understanding of the terms of the debate as signalled by publics. For example, our research shows how many public concerns about system change pertain as much to beliefs about the actors implicated in energy system development as they do to questions about the actual technologies and their deployment. This is particularly significant, as where responses to public concerns are predicated on erroneous assumptions about the nature of the issues at hand (e.g. that they pertain only to matters of technological safety) the result is much more likely to be one of conflict.

Conclusions

We conclude arguing that public engagement is likely to be integral to the attainment of energy system change and associated aims of carbon management. Central to public engagement activities, in this regard, is a need to focus on the public concerns and values that underlay responses. Taking this as a starting point is more likely to produce dialogue processes that are both effective and satisfactory to all parties involved. By opening up discussion in this way participants can arrive at and find their own ways of beginning to

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negotiate the difficulties and intractable conflicts that arise in decision-making about energy system change.

References

1 Kearnes M, Wynne B, On Nanotechnology and ambivalence: The politics of enthusiasm. *NanoEthics*, 1, 131 – 142. (2007)

2 UK Energy Research Centre, UKERC. *The UK energy system in 2050: Comparing low-carbon, resilient scenarios.* UKERC, London. (2013)

3 Department of Energy and Climate Change. *The Carbon Plan: Delivering our low carbon future.* DECC, London. (2011)

4 International Energy Agency, IEA. *IEA Annual Report: World Energy Outlook 2010*. Available at: http://www.worldenergyoutlook.org/quotes.asp. (2010)

5 For example see O'Brien K, Hayward B, Berkes F, Rethinking social contracts: Building resilience in a changing climate, *Ecology and Society*. 14(2), 12. (2009)

6 For example see Wynne B, Misunderstood misunderstandings: social identities and the uptake of science. *Public Understanding of Science* 1, 281-304. (1992)

7 Stirling A, Opening up or Closing Down? Analysis, participation and power in the social appraisal of technology. In: M. Leach, I. Scoones and B. Wynne (eds.) *Science and Citizens: Globalization and the Challenge of Engagement*, Zed, London. (2005)

8 Rowe G, Horlick-Jones T, Walls J, Pidgeon N F, Difficulties in evaluating public engagement initiatives: reflections on an evaluation of the UK 'GM Nation?' public debate. *Public Understanding of Science*, 14(4), 331-352. (2005)

Postprint: Butler, C. and Demski, C. C. (2013). Valuing public engagement with energy system transitions: the importance of what lies beneath [Commentary]. *Carbon Management*, 4(6), 659-662. (10.4155/cmt.13.64).

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9 For a review of the literature see Whitmarsh L, Upham P, Poortinga W, McLachlan C, Darnton A, Devine-Wright P, Demski C, Sherry-Brennan F, *Public attitudes, understanding, and engagement, in relation to low-carbon energy: A selective review of academic and non-academic literatures*. Report for the RCUK Energy Programme. (2011)

10 For example see Hargreaves T, Nye M, Burgess J, Social experiments in sustainable consumption: an evidence based approach with potential for engaging low income communities. *Local Environment* 13(8), 743-758. (2008)

11 Cass N, Walker G, Emotion and Rationality: The characterisation and evaluation of opposition to renewable energy projects. *Emotion, Space and Society*, 2, 62-69. (2009)

12 For example see Devine-Wright P, Beyond NIMBYism: Towards and integrated framework for understanding public perceptions of wind energy, *Wind Energy*, 8, 125-139. (2005)

13 Cowell R, Owens S, Governing Space: Planning and the politics of sustainability. *Environment and Planning C: Government and Policy*, 24, 403-421. (2006)

14 Department of Energy and Climate Change, DECC, *Overarching National Planning Statements for Energy: Planning for new energy infrastructure*. DECC, London. (2011)

15 See Harvey, F. Anti-fracking protests in Balcombe signal major shift in public awareness, *The Guardian*, (19 August 2013)

16 Walker G, Cass N, Carbon reduction, "the public" and renewable energy: engaging with socio-technical configurations, *Area*, 39(4), 458-469 (2007)

17 Peters M, Fudge S, Hoffman S M, The persistent challenge of encouraging public participation in the low-carbon transition, *Carbon Management*, 4(4), 373-375 (2013)

Postprint: Butler, C. and Demski, C. C. (2013). Valuing public engagement with energy system transitions: the importance of what lies beneath [Commentary]. *Carbon Management*, 4(6), 659-662. (10.4155/cmt.13.64).

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18 Parkhill K, Demski C, Butler C, Spence A, Pidgeon N F, *Transforming the UK Energy System: Public Values, Attitudes and Acceptability - Synthesis Report*. UKERC, London. Available at: http://www.ukerc.ac.uk/support/tiki-download_file.php?fileId=3229. (2013)

19 Butler C, Parkhill K A, Pidgeon N, *Deliberating energy system transitions in the UK – Transforming the UK Energy System: Public Values, Attitudes and Acceptability*, UKERC, London. Available at: http://www.ukerc.ac.uk/support/tiki-download_file.php?fileId=3229 (2013)

20 Demski C, Spence A, Pidgeon N, *Summary findings of a survey conducted in August 2012 – Transforming the UK Energy System: Public Values, Attitudes and Acceptability*, UKERC, London. Available at: http://www.ukerc.ac.uk/support/tiki-download_file.php?fileId=3229. (2013)