(Not) talking about justice: justice self-recognition and the integration of energy and environmental-social justice into renewable energy siting

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Abstract

Renewable energy often provokes heated debate on climate change, energy security, and the local impacts of developments. However, how far such discussions involve thorough and inclusive debate on the energy and environmental-social justice issues associated with renewable energy siting remains ambiguous, particularly where government agendas prioritise renewable energy and planning systems offer limited opportunities for public debate on value-based arguments for and against renewable energy developments. Using the concept of justice self-recognition, we argue for greater attention to public discussion of the justice dimensions of renewable energy to assist in developing mechanisms to integrate distributive and procedural fairness principles into renewable energy decision-making. To explore how justice is currently invoked in such contexts, we examine recent UK policies for renewable energy and public submissions to applications for small-scale wind energy projects in Cornwall, UK. The analysis of public comments revealed that justice concerns were rarely discussed explicitly. Comments instead did not raise concerns as justice issues or focused implicitly on distributive justice, stressing local aesthetic, community and economic impacts, clean energy and climate change. However, the findings indicated limited discussion of procedural or participatory justice, an absence that hampers the establishment of coherent procedures for deciding acceptable impacts, information standards, public participation and arbitrating disputes. We conclude by suggesting procedural reforms to policy and planning to enable greater public expression of justice concerns and debate on how to negotiate tensions between energy and environmental-social justice in renewable energy siting decisions.

Keywords: wind energy; energy and environmental-social justice; justice self-recognition; planning policy; Cornwall

Introduction

Recent years have seen burgeoning interest in energy justice as a lens for identifying and addressing inequities within energy production and supply systems (Goldthau and Sovacool 2012; Heffron, McCauley and Sovacool 2015; Jenkins *et al.* 2016; McCauley *et al.* 2013; Sovacool and Dworkin 2014). Few would dispute the fundamental ambition of energy justice to promote universal access to reliable, safe, affordable and sustainable energy (McCauley *et al.* 2013), but implementing its ideals can provoke controversy where energy decisions impinge on other societal justice concerns. A prime example is where policies to promote renewable energy conflict with community concerns to protect themselves from the negative health, environmental or social impacts of energy developments (Cotton 2017; Malin and DeMaster 2016; Wolsink 2007). Local resistance to renewable energy is still commonly attributed to a "NIMBY" (Not In My Back Yard) mindset underpinned by self-interest (Bidwell 2013). However, numerous commentators have critiqued use of the term by developers and decision-makers to disregard local concerns about unfair burdens, inadequate consultation, and other forms of environmental-social injustice[1] (Bailey 2016; Devine-Wright 2011a; 2012; Gross 2007).

Community perceptions of justice have accordingly formed a major theme in research on renewable energy siting (Gross 2007; Jobert *et al.* 2007; Langer *et al.* 2016). Some studies have explored normative frameworks for achieving just and inclusive decision-making, employing concepts such as participatory planning and landscape justice (Gross 2007; Howard 2015; Mason and Milbourne 2014), while others have explored community evaluations of distributive and procedural justice within decisions on energy infrastructure siting (e.g. Anderson 2013; Armeni 2016; Bidwell 2013; Cotton and Devine-Wright 2011; Delicado *et al.* 2014; Langer *et al.* 2016; Ottinger *et al.* 2014; Simcock 2016; Zoellner *et al.* 2008). However, most studies have used retrospective techniques, such as surveys, interviews or focus-group techniques, that arguably prompt participants to reflect on justice issues they may not otherwise have considered or raised in planning debates, and which often attract those with stronger opinions who may not reflect broader community views. Delicado *et al* (2014) and Cowell's (2010) studies of attitudes to wind power in Portugal and Wales partly avoid these problems by combining interviews with reviews of public responses to planning consultations. However, Delicado *et al.* (2014) analysed comments on environmental impact assessments conducted prior to planning applications while

Cowell (2010) examined responses to a strategic search for acceptable areas for wind energy rather than specific wind farm applications. Importantly, neither examined how communities and individuals expressed justice arguments for and against wind energy at the point when decisions on planning permission were being made.

Gaining more reliable understandings of how energy and local environmental-social justice are perceived and articulated by groups affected by renewable energy siting – and how conflicts are managed – requires greater attention to public discussions during "live" planning debates, when the impacts of proposals become apparent and directly pertinent to residents. Research consistently shows higher public support for renewable energy at an abstract level compared with actual deployments (Bidwell 2013; Wolsink 2007; Zoellner *et al.* 2008) and that people use different logics – often stressing technology characteristics, place attachment and procedural flaws (Devine-Wright 2012) – to justify opposition. However, how justice is debated in its unedited forms during planning processes remains under-researched. This gap also represents a priority because of the difficulties in achieving equitable accommodations between energy and environmental-social justice without open and inclusive dialogue about how these should be balanced in energy siting. Such dialogue may help to counter the temptation for government and developers to see renewable energy as advantageous to national and commercial goals and opposition as parochial and NIMBYist (Fuller and McCauley 2016). Equally, it may encourage greater reflection by residents on justice arguments favouring renewable energy in specific locations.

This article seeks to fill this research gap by examining recent experiences with wind energy siting in Cornwall, an area of the UK that has experienced a surge in small-scale wind schemes since 2010. Wind energy was chosen as a focus because wind turbines remain controversial on the grounds of visual, landscape, health and wildlife impacts (West *et al.* 2010; Wolsink 2007), so one would anticipate strident debate on justice issues during planning applications. The first main strand of enquiry examines how energy and environmental-social justice have been constructed in recent UK national policies governing planning applications for wind energy. Although the Department for Communities and Local Government's (DCLG) 2012 National Planning Policy Framework and supporting policies for renewables do not refer directly to energy or environmental-social justice, they project clear ethical agendas that stress the responsibility of all communities to contribute to energy security and reducing emissions (DCLG 2012). The second strand focuses on how public

views were expressed in written submissions to 14 planning applications for wind turbine projects in Cornwall, to examine how supporters and objectors have invoked justice issues.

Our main argument is that selective interpretations of energy and environmental-social justice by central government – both in terms of issues and the priority given to national agendas compared with local considerations – combined with an inability and/or reluctance by communities to discuss wind energy projects as *justice* issues has contributed to a lack of robust debate on the justice dimensions of wind energy siting. Politically motivated interpretations of "fair" outcomes have instead dominated, driving, first, planning policy heavily weighted towards approving applications – sometimes reversing local decisions – and, latterly, conditions where approval has become difficult even where only minority objections exist. In exploring the implications of this situation, the article seeks to advance understanding of the contested relationship between energy justice and other forms of environmental-social justice while drawing attention to the need for energy policy in countries like the UK to pay greater attention to enabling inclusive and open dialogue on the justice dimensions of renewable energy siting.

The next section explores key energy and environmental-social justice principles and debates affecting renewable energy decisions, focusing particularly on procedural and participatory justice within decision-making (Jenkins *et al.* 2016). We then interrogate recent UK policies for small-scale renewables and how government interpretations of justice have influenced decision-making on wind turbine applications in Cornwall. Following this, the methods for analysing public submissions on turbine applications and the study's findings are discussed. Finally, we explore the study's implications and ways to encourage greater consideration of the diverse and multi-scalar justice issues affected by renewable energy decision-making.

Energy and environmental-social justice: principles and tensions

The range of socio-environmental concerns debated under the banner of environmental justice has diversified appreciably in recent decades (Schlosberg 2004; 2007; Walker 2009). Interest has particularly centred on climate and energy justice as lenses for analysing inequities associated with climate change and the demands of energy security, access and environmental sustainability that make up the energy trilemma (Cotton and Devine-Wright 2012; Hall 2013; Heffron *et al.* 2015; Jenkins *et al.* 2014; 2016). While this proliferation

reflects the multiple ways socio-environmental issues are entangled with questions of fairness, it has undoubtedly heightened the complexity of the environmental justice landscape (Klinsky and Dowlatabadi 2009; Sovacool 2014). Climate, energy and environmental justice share similar philosophies about fairness in the allocation of rights and responsibilities (Jenkins *et al.* 2016; Sovacool 2014), but their different foci make it problematic to assume a neat alignment of goals. Our main interest here is intersections between energy justice and local environmental-social justice, because although climate justice forms a general backcloth to energy policy, energy and environmental-social justice often compete more directly with each other in renewable energy siting disputes. McCauley *et al.* (2013) defines energy justice as the promotion of universal access to safe, affordable and sustainable energy. As such, its agenda extends beyond revealing where and why energy injustices occur to incorporate a normative focus on reducing injustices in energy systems (Jenkins *et al.* 2016). Environmental justice, meanwhile, centres on meaningful public involvement in environmental decision-making and non-discriminatory protection from environmental risks, particularly for marginalised and disadvantaged groups (Bullard and Johnson 2000; Walker and Bulkeley 2006), and thus articulates more multi-faceted concerns for social and environmental equity in relation to energy and the collateral effects of energy decisions.

Tensions between these concepts may emerge where actions to address energy injustices encroach on other justice priorities, creating ambiguity in the definition of fair outcomes depending on whether energy or environmental-social justice lenses are applied, the relative importance given to local, national or international concerns, and how short- and long-term impacts are prioritised. For example, where arguments about mitigating climate change by reducing fossil fuel dependency clash with concerns for aesthetic, social and environmental quality in areas targeted by low-carbon energy projects, questions about national energy production become ensnared in local debates about how burdens and benefits should be allocated (Bailey 2016; Langer *et al.* 2016). Conversely, such debates may be circumscribed by the power relations affecting how different justice arguments are prioritised. Climate change and energy security are often regarded as national and international concerns, so without appropriate checks and balances may overshadow local justice concerns. While, Jonas and Gibbs (2010) indeed argue that recent years have seen the rise of a distinctive low-carbon polity in the UK that has exposed sub-national political

arenas to uncompromising new values, political agendas, and forms of state regulation. They contend that such domination has subverted broader readings of sustainable development while promoting socially uneven re-workings of state-society relations, a phenomenon Swyngedouw (2010: 214) regards as symptomatic of a post-political approach to climate governance in which: "technocratic management and consensual policy-making has sutured the spaces of democratic politics."

Negotiating tensions between energy and environmental-social justice requires close attention not only to distributive justice but also to the procedures for encouraging stakeholder participation and adjudicating between competing viewpoints (Haggett 2011; Langer *et al.* 2016; Rowe and Frewer 2004; Schlosberg 2004; Walker 2009; Walker and Day 2012). *Distributive justice* focuses on social and spatial equity in the effects of energy decisions to tackle existing inequalities and avoid new inequities. *Procedural justice*, meanwhile, focuses on promoting stakeholder participation to utilise local knowledge and democratise decision-making, trustworthy assessment of the effects of decisions, and evidence-led decision procedures (Gross 2007; MaCoun 2005; Sovacool *et al.* 2013; Jenkins *et al.* 2016). Rowe and Frewer (2004) additionally stress the need for clear criteria for evaluating the effectiveness of participation, but also note the difficulties in achieving clear and objective definitions of effectiveness. In value-laden debates on renewable energy siting, effective participation can carry various meanings but relates generally to ensuring all legitimate viewpoints are considered in relation to some combination of their merits and whether they represent the wider views of those affected by siting decisions (Armeni 2016; McClymont and O'Hare 2008). In this context, Schlosberg (2007) and Heffron *et al.* (2015) also emphasise the importance of *recognition* justice in guarding against the use of stereotypes or other means of cultural domination that might undermine the rights of individuals and groups to participate in consultations.

Space constraints prevent discussion of all the distributive, procedural and recognition justice issues affecting renewable energy siting. However, two issues stand out as especially pertinent to the present discussion. The first, already noted, concerns the need for multi-issue and multi-scalar perspectives on justice to protect against energy concerns overshadowing other issues, the domination of national and international agendas, or the derailing of policy by local opposition. Although some definitions of energy justice incorporate concern for how the burdens and benefits of energy systems are distributed

(Bickerstaff *et al.* 2013; Sovacool 2014), how far these include the full range of non-energy impacts from energy choices remains ambiguous and narrower interpretations may give primacy to renewable energy on climate or other grounds while giving lesser weight to local socio-environmental impacts based on the reasoning that energy transitions cannot be entirely free from detrimental impacts. Counteracting such tendencies requires consistency, transparency and accountability in decision-making, not least because of the longevity of energy infrastructure and the potential for procedural flaws to erode trust in decision-makers (Sovacool *et al.* 2016). However, despite agreement that achieving just outcomes is seriously compromised without procedural safeguards, Maguire and Lind (2003) and Skitka *et al.* (2003) warn that procedural fairness cannot guarantee acceptance of decisions; groups strongly opposed to wind farms may care more about outcomes and be more inclined to "cry foul" if decisions go against them, while supporters may find little fault with the same procedures because of convictions about wind energy (Gross 2007).

The contingent and outcome-dependent nature of procedural justice reinforces the importance of robust participation that recognises different viewpoints (Schlosberg 2007; Young 2000). As Bulkeley, Edwards and Fuller (2014: 33) note, just climate and energy outcomes require: "nuanced engagement with how… action creates both costs and benefits, which are unevenly experienced… it involves engaging substantively with the notion of justice as recognition". Recognition justice has been discussed extensively in relation to racial, cultural, gender and socio-economic discrimination (Jenkins *et al.* 2016; McCauley *et al.* 2013; Sovacool and Dworkin 2014), but renewable energy debates also possess their own pejoratives, such as the labelling of objectors as "NIMBYs", wind turbines as environmentally or economically inefficient, and supporters as unscrupulous profiteers with little regard for affected communities (Devine-Wright 2011a; Wolsink 2007).

Most discussions of recognition justice have focused on marginalised groups and minority viewpoints. However, a less frequently discussed issue is that of justice "self-recognition", a term we use to encapsulate two interlinked ideas: participants' awareness that their opinions represent legitimate fairness issues rather than just personal viewpoints; and their ability and confidence to utilise the vocabulary of justice to defend their rights during renewable energy conflicts. Justice self-recognition, we argue, forms a vital part of recognition justice because recognition by individuals that their concerns raise legitimate distributive or procedural issues is a pre-requisite of petitioning for them to be treated as

such by decision-makers. Conversely, where perceived injustices are not expressed in justice language, the greater the likelihood of them being seen as less important by decision-makers regardless of the merits of the arguments, particularly where they are minority viewpoints. Although Honneth (2004) again warns of participation being skewed by the influence and "noisiness" of actors rather than the ethics of arguments or the worthiness of groups, justice self-recognition represents an under-researched aspect of efforts to address trade-offs between energy justice and other spheres of economic and social life (Fuller and McCauley 2016). We discuss justice self-recognition further later in the article but, before this, the next section reviews recent UK policies on small-scale renewables and the energy-justice agendas created by these policies.

Feed-in tariffs, planning policy and Cornwall's renewables boom

Cornwall's engagement with renewable energy began in 1991 with the construction of the UK's first commercial on-shore wind farm near the village of Delabole. Over the next decade six further wind farms were built in Cornwall, but since 2010 the region has experienced a surge in small-scale onshore wind and solar generation. Between 2010 and 2016, the number of turbines installed or approved grew from around 100 to 421, while 91 commercial solar-PV sites have also been constructed (Cornwall Council 2016a; 2016b).

The first main factor driving this expansion was the introduction in 2010 of the UK feed-in tariff (FiT) by the Labour government. This scheme offered premium prices for renewable energy projects up to 5MW capacity, with tariffs differentiated by: technology; electricity consumed at the point of generation or exported; project size (smaller schemes receive higher tariffs); and installation date (Ofgem 2016). In keeping with the ethos of FiTs and other traditions in UK energy policy, the scheme provided a regulatory framework and financial incentives but left market forces and the planning system to determine where and in what forms investment should occur (Mitchell 2008).

The second driver, the introduction of the 2012 National Planning Policy Framework (NPPF) by the Coalition government, took a more assertive approach towards the conditions under which developments should be approved. At the core of the NPPF was a presumption in favour of sustainable development, which the DCLG (2012: 4) argued: "should be seen as a golden thread running through both plan-making and decision-taking". The ministerial

foreword included an contentious definition of sustainable development: "*Development means growth.*" (ibid: i), while Section 14 argued that local authorities should approve developments unless "adverse impacts… would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework" (ibid: 4).

The DCLG's *Planning practice guidance for renewable and low carbon energy* (PPGRLCE), published in 2013, further articulated the government's ethical agenda on renewables, stating that all communities had a responsibility to contribute to energy from renewable and low-carbon sources and that local planning authorities should develop positive strategies for renewable energy (DCLG 2013). The NPPF instructed planning authorities not to require applicants to demonstrate the overall need for renewable energy and to recognise that even small-scale projects made a valuable contribution to cutting greenhouse-gas emissions, and directed planning committees to approve applications "if impacts are (or can be made) acceptable" (DCLG 2012: 23; 2013). Although both documents acknowledged that green energy should not override environmental or community concerns, except for noise and essential safety measures, most criteria were only specified qualitatively for interpretation by local authorities, consultative agencies (e.g. Natural England), and/or developers (DCLG 2013).

Several aspects of the justice agendas created by these policies merit further discussion. The first concerns the government's use of "hard" and "soft" governing technologies to regulate the expectations and actions of local planning authorities (Rose-Redwood 2006). "Soft" discursive power was exercised by projecting ethical norms that prioritised national concerns for energy supplies, cutting greenhouse gas emissions, and investment; correspondingly, the role of planning was to deliver renewable energy infrastructure where impacts could be made acceptable, rather than emphasising autonomy or local priorities (Murdoch 2004). "Hard" material power was exerted by specifying "positive criteria" under which applications should be approved (DCLG 2013). Additionally, limiting the grounds for rejecting applications also restricted the capacity of communities to challenge government interpretations of renewable energy policy. Equally, though the PPGRLCE required attention to cumulative impacts, it imposed no quantitative and few area-based restrictions on renewable energy. A further element of material power was the retention of final decision-making power if local institutions resisted government agendas (McKee 2009) under provisions in UK planning law allowing applicants to appeal rejected

projects to the Planning Inspectorate for further assessment against the NPPF, local plans and the project's characteristics. Its decisions can only be revoked through legal proceedings. Finally, the introduction of interventionist strategies alongside the FiT enabled commercial actors to become influential interpreters of the government's energy agenda (Catney *et al.* 2014). In essence, the policies gave developers strong incentives to promise landowners lucrative returns for investing in renewable energy and powerful arguments to press for the approval of projects (Bailey 2016).

But how have local communities responded to this agenda, what arguments have been used to support or object to applications, and to what extent have communities articulated distributive and procedural justice arguments during planning debates on renewable energy? The next section begins to address these questions by explaining the methods used to examine public submissions to wind turbine applications in Cornwall.

Methods

Research into the use of justice arguments by affected communities consisted of analysis of public submissions on 14 wind turbine applications submitted between 2011 and 2015. Submissions to planning websites were preferred to observing public meetings after attending three meetings because each meeting was dominated by vocal objectors and involved hostile exchanges that may have deterred the expression of some viewpoints. In contrast, planning websites allow anonymous online or postal submissions, so involvement is not limited by internet restrictions or concerns about ill feeling, and longitudinal sampling of planning decisions was possible. It was anticipated that people with stronger opinions would be more likely to submit comments, potentially biasing the sample, but this would be likely with any research method.

The sample included three applications approved by planning committees, six that were approved on appeal, and five where appeals were dismissed. This led to an overall dataset of 842 submissions and 14 applications proved sufficient to achieve saturation in the arguments used by both supporters and objectors[2]. Additionally, capturing arguments for applications with different outcomes gave confidence of having achieved a representative sample of how different arguments – including appeals for justice and fairness – were expressed in submissions.

Supporters and objectors' arguments were analysed to explore four main themes:

(1) The main issues raised, for example: visual and landscape disturbance; noise and other health effects; business benefits and negative impacts; ecology and heritage; community effects; distribution of benefits; property values; cumulative impacts; consultation procedures; and climate change and energy security.

(2) The spatial emphasis of arguments, classified into local, regional, national or international issues, to identify any patterns in the geographical scale at which supporters and objectors pitched arguments.

(3) The extent to which justice arguments featured in submissions, using a three-level analysis: (i) where arguments used terms like "justice", "unjust", "fair" or "unfair"; (ii) where references to justice could be inferred but justice terminology was not employed; and (iii) where no evidence existed that notions of (un)fairness were consciously expressed by the individual.

(4) Although not all arguments made direct or indirect reference to justice issues, content analysis enabled tracing of all arguments to some form of fairness/unfairness claim. Arguments were consequently linked to outcome, distributive and procedural justice, then procedural justice arguments were further sub-divided into: (i) decision-making rules (e.g. the NPPF or local plans); (ii) assessment procedures; and (iii) consultation processes (Ottinger, Hargrave and Hopson 2014; Schlosberg 2007). In so doing, we investigated how frequently each justice category was invoked to analyse how different justice ideas influenced the way arguments were presented.

The crucial advantage of textual analysis was that it examined arguments as they were expressed by individuals and considered by decision-makers, and thus avoided prompted reflections on the justice dimensions of arguments. Conversely, the technique relied on interpretation of whether individuals expressed their arguments as justice issues and the

forms of (un)fairness being asserted. Although interpretation was mostly straightforward (see points 1-4 above and the relevant results sections for explanations of the criteria used to classify the presence or absence of justice arguments, and types of justice arguments identified), a selection of arguments was read independently by both researchers to reduce misinterpretation. Additionally, the analysis could not determine whether individual arguments influenced the approval or rejection of applications because public submissions formed only part of the evidence base for decision-making. However, because the intention was to explore how justice arguments were used rather than whether they influenced decisions, this did not impose significant limitations.

Contesting wind turbine applications

Key issues and spatial emphases

The first phase of analysis revealed a familiar range of issues being raised about wind energy (Table 1) (Cowell 2010; Delicado *et al.* 2014; Devine-Wright 2011a; Gross 2007; Zoellner *et al.* 2008). Among objectors, three main categories of impact were stressed: *effects on rural landscapes*, including visual and landscape impacts, the cumulative effects of multiple turbines, and impacts on wildlife and heritage (48.3% of objections); *effects on people* (health and noise, community, damage to tourism, declining property values, and uneven distribution of financial benefits) (31.1%); and *criticisms of decision-making*, such as government policies supporting ineffective and/or expensive technologies, and unsatisfactory consultation or assessment (17.1%). Supporters' comments, meanwhile, focused on the benefits of wind power (clean energy, combating climate change, energy security and future generations (43.2% of arguments)); local economic benefits (24%); and the limited negative impacts of turbines (30.4%); while a further 2.4% criticised objectors as selfish and short-sighted.

Although these results largely corroborate previous studies, one noteworthy tendency was for supporters to submit short general commentaries supporting wind energy, whereas many objectors provided detailed analyses of government policy, planning requirements, impact assessments, or specific impacts. This provides an initial indication of power relations in the planning process: supporters appeared to feel little need to offer elaborate arguments because of the NPPF's support for wind energy, whereas objectors instinctively

or consciously identified that a detailed evidence base spanning multiple technical and planning issues was required to convince decision-makers that the application failed to meet the government's acceptability requirements (Usher 2013).

Table 1: Main Issues Raised by Supporters and Objectors (n=842)

Supporters (n=134)			Objectors (n=708)		
Issue	%	Main spatial emphasis	Issue	%	Main spatial emphasis
Clean energy	28.0	Global/ national	Landscape and visual impacts	28.2	Local, regional
Aesthetically pleasant	15.2	Local	Health and noise	13.3	Local
Temporary/limited impacts	15.2	Local, regional	Cumulative impacts	10.3	Local, regional
Farm livelihoods	12.8	Local	Business/tourism impacts	8.9	Local, regional
Local economic benefits	11.2	Local	Ineffective technology	7.6	National, global
Climate change	6.4	Global	Wildlife	6.5	Local
Energy security	6.4	Local, national, global	Consultation	6.5	Local
Selfish/short-sighted objectors	2.4	Local	Community/personal effects	5.3	Local
Future generations	2.4	Global	Distribution of benefits	3.6	Local
			Heritage	3.3	Local, regional
			Flawed assessment	3.0	Local
			Other, including procedure	3.5	Local, regional, national
	100.0			100.0	

Further distinctions emerged in the spatial framing of objectors and supporters' arguments. Table 2 indicates that although both groups primarily discussed local effects, opponents concentrated almost entirely on local issues, while 32.3% of supporters' arguments also stressed national and international issues like energy security and climate change. The general accent on local issues would appear to reflect a desire by both camps to invoke a sense of local identity that conveyed ideas of community, landscape and heritage preservation (objectors) or livelihoods and enhanced local distinctiveness (supporters) to gain traction with local planning committees (Usher 2013; Devine-Wright 2011b). However, the greater emphasis among supporters on national and international issues might correspondingly reflect attempts to remind committees of the requirements of the NPPF[3], particularly when interwoven with broader ethical arguments. As one supporter wrote, "there is a moral obligation to cut emissions. Unless we cut electricity, we need turbines for the sake of future generations". Combative reasoning emphasising regional and local issues were also used by objectors to challenge the ethics of policies they regarded as creating unequal burdens and benefits, and by supporters to question the reasoning of objectors. As one objector argued, "the turbine brings zero benefits to local populace. The views of the environmental Nazis should not be allowed to cow the rest of us to silence", while another noted that a proposed turbine:

> condemns people to a huge impact on turnover and likely profitability to help one business. Don't harm so many people, businesses, homes and tourists' destinations for one developer who only cares about his relatively small financial gain and disregards the wider loss to the community, both residential and commercially.

Supporters argued conversely that a turbine would: "contribute to the county becoming energy self-sufficient" and attacked objectors as: "short sighted to oppose the turbines. Who would want to live near a nuclear reactor?" offering an interesting, if speculative, choice between different forms of energy generation.

Table 2: Spatial scale of justice arguments

	Totals			%		
	Supporters	Objectors	Total	Supporters	Objectors	Total
Local	80	560	640	52.6	81.2	76.0
Regional	23	79	102	15.1	11.4	12.1
National	24	47	71	15.8	6.8	8.4
Global	25	4	29	16.5	0.6	3.5
	152	690	842	100.0	100.0	100.0

Justice and public debate on turbine applications

The next phase of analysis examined the ways discussion of justice featured in public comments. To recap, all submissions were first analysed to identify whether commentators referred directly or implicitly to energy or environmental-social justice, or whether there was no evidence of the individual framing arguments as justice issues. Further content analysis was then used to explore links between each argument and elements of outcome, distributive or procedural justice, even where these were not expressed in such terms. Predictably, given the controversial nature of turbine siting, all arguments had justice connotations, though many were inferred rather than declared and relied on researcher interpretation. Its main purpose, therefore, was to illuminate the emphasis on outcome, distributive or procedural justice within submissions rather than intent.

Surprisingly given the strength of community views on distributive and procedural justice reported in the literature (e.g. Armeni 2016; Bidwell 2013; Delicado *et al.* 2014; Simcock 2016; Zoellner *et al.* 2008), only 4.8% of arguments referred openly to justice ideas. For example, one objector described the decision process as "undemocratic and manifestly unfair when government policy is supposed to give local people a greater say". Another claimed that "it is clearly unfair I should have a turbine on my boundary, making it impossible for me to carry on my business". A further 15% referred to justice issues without using justice terminology (e.g. "I will have a serious loss of living amenity"), but 80.2% of arguments made neither direct nor indirect reference to justice issues even where

cumulative impacts were raised (e.g. "the many other turbines and solar developments in the area will detrimentally affect tourism", "Cornwall has met its targets for renewable energy" and "renewable energy is the future"). Most arguments were instead presented as "verifiable" statements rather than as outcome, distributive or procedural justice claims.

To probe public discussion of justice concerns further, the final stage of analysis traced links between each argument and elements of outcome, distributive or procedural justice even where they were not expressed in justice terms. Arguments were linked to outcome justice where they focused on the overall merits of wind energy as a response to climate change, energy security and/or economic regeneration, and to distributive justice where they commented on the distribution of impacts and benefits. Procedural justice was then divided into three components: (1) *assessment issues*, e.g. methods for evaluating impacts, or the conclusions of impact studies; (2) *participation*, e.g. lack of consultation, representation, or impact of public opinions on decisions; or (3) *procedural issues*, e.g. criticisms of policies and planning procedures for determining applications.

Unsurprisingly, distributive justice formed the dominant theme (65.2% of arguments), reflecting concerns that turbine owners and other parts of the country would benefit from developments while most disadvantages would be experienced by nearby residents (Figure 1). As one respondent noted, "local people would have the regular insulting reminder of the injustice, in the form of subsidies for the back pockets of the landowner and developer". In contrast, only 19.1% of arguments related to overall outcome fairness, mostly by supporters. Arguments here included:

> Fossil fuels are running out rapidly, so we need renewable energy to protect energy security.

> Global warming affects farming and humanity.

> The majority agree with renewable energy as a way of meeting the country's energy requirements.

However, some opponents' arguments also linked to outcome justice where they questioned the wisdom of wind energy:

There is a central misconception that wind turbines are a solution to climate change, brought about by collaboration between the greedy energy industry and aimless government policies.

Wind turbines are not economic or helping to reduce carbon footprints
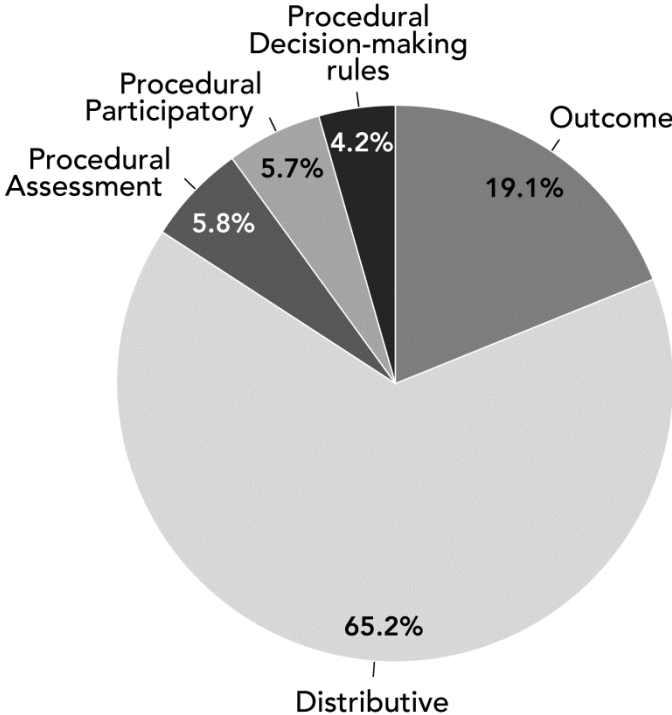
These are inefficient taxpayer subsidised machines.

Figure 1: Types of justice arguments in consultation submissions

Procedural justice issues were predictably dominated by objectors but, surprisingly given the controversial elements of government policy, featured in just 15.7% of arguments. 5.8% of total arguments related to assessment procedures, 5.7% to participation, and 4.2% to the rules for determining applications. Common assessment complaints included one objector who claimed that "there were errors in the noise assessment, properties were missed from the evaluation, and the assessment of visual impacts was entirely subjective", while criticisms about consultation included:

We were provided with no information about the application, making a mockery of the consultation process.

> The people living near the site object, yet we have to contend with anonymous people supporting applications that do not identify their locations.

Finally, several submissions were critical of local and national government policy:

> The Council has no strategy for wind turbines and the application is inconsistent with local plans.

> The process is undemocratic and manifestly unfair. Recent changes in government policy and the Localism Act are meant to give local people a greater say.

> Our village has suffered under recent political and economic policies; we have lost our school and public house. Now government policy is undermining the community and driving divisions between residents.

The low overall use of justice arguments, particularly procedural justice, among the submissions nevertheless contrasts starkly with other studies that indicate strong community views on the justice dimensions of renewable energy siting (Anderson 2013; Armeni 2016; Bidwell 2013; Cotton and Devine-Wright 2011; Delicado *et al.* 2014; Langer *et al.* 2016; Ottinger *et al.* 2014; Simcock 2016; Zoellner *et al.* 2008). Lack of public awareness of connections between wind energy and justice seems unlikely given the findings of previous studies and the instances where procedural or other issues were expressed vociferously. Limited public understanding of technical assessments (e.g. noise, landscape visual impact, and heritage) may have contributed to lack of discussion of assessment concerns, though some submissions provided detailed critiques while others demonstrated awareness of planning policy (e.g. "there needs to be legislation on minimum distances from buildings" and: "the Localism Act says developments should not be permitted if the local community objects"[4]). A more plausible explanation for the deficit is that respondents recognised that challenging the values or provisions of government policies increased the risk of submissions being disregarded as emotive and unimportant. Supporters and opponents instead sought to influence decisions by emphasising technical or planning requirements. For objectors, this encouraged an accent on local identities and distributional considerations that were recognised in national policy and local plans, whereas supporters had greater scope to air general opinions that reflected the government's views on

renewable energy. In both cases, but more obviously for objectors, the normative agendas established in the NPPF inhibited people's confidence to utilise justice concepts and language to support viewpoints even where they felt government policies were distributively or procedurally unfair.

The inconsistency with previous research almost certainly stems from the methods used to explore public opinions on the justice dimensions of wind energy (see Cowell 2010; Haggett 2011; Howard 2015). Usher's (2013) analysis of a coalmine application in Yorkshire similarly reveals how activist groups adapted to planning protocols by adopting a professionalised lexicon that emphasised planning and technical objections because they believed emotive arguments would be discounted (also Cass and Walker 2009). In this case, opposition groups secured the rejection of the coalmine by stressing the protection of attractive landscapes within greenbelt land and other material planning considerations that maximised their chances of the planning committee's decision being upheld by the Planning Inspectorate in the event of an appeal. Similarly, objectors to the wind turbine applications reviewed appeared to recognise that contesting the fairness of government policies would prove unproductive and sought instead to influence decision-making within the existing rules of planning policy.

Summing up, it appears that the choice of data collection methods can significantly alter the understandings gained about how energy and environmental-social justice are debated and influence planning decisions. This and Usher's study both analysed textual evidence from "live" decision-making processes rather than relying on prompted accounts of the fairness of decision-making on wind energy developments (though see Delicado *et al.* (2014) for a partial exception). The latter approach advances general understandings of how community perceive justice and trust in decision-making on energy siting but may provide less trustworthy insights on people's ability and confidence to express justice as a concern during decision-making itself. A greater emphasis on investigations that directly probe how justice issues are discussed during energy siting disputes thus appears to be crucial in gaining a deeper understanding of how power relations shape the discussion of energy and environmental-social justice in renewable energy decision-making.

Concluding discussion

Disputes over the siting of renewable energy developments are ultimately debates about justice: in the distribution of benefits and burdens; in the mechanisms used to promote public participation; and in the procedures used to evaluate information and arbitrate between competing viewpoints. The deficits in public discussion of the justice issues associated with wind energy siting identified in this study, combined with the strong community opinions on distributive and procedural justice in previous research (e.g. Bidwell 2013; Cowell 2010; Delicado *et al.* 2014; Howard 2015; Langer *et al.* 2016; Ottinger *et al.* 2014; Simcock 2016; Zoellner *et al.* 2008), raises important concerns about the UK government's commitment to public debate on the justice implications of renewable energy. In particular, strong government agendas and "technical rationalist" leanings within planning processes (Cass and Walker 2009; Usher 2013: 821) appear to have eroded the ability and confidence of affected communities to express concerns as justice issues, even where they regarded outcomes or procedures as unfair. Although this generally favoured supporters, objectors and supporters both sought to gain influence by linking arguments to government agendas (e.g. climate change, energy security and localism) or government-determined planning considerations (e.g. landscape impact and noise requirements) rather engaging in open-ended debate about how to balance broader-scale energy justice and local environmental-social justice (Armeni 2016; Usher 2013).

This policy approach, we argue, marginalised an important source of accountability (Catney *et al.* 2014; Rose-Redwood 2006) and may prove counterproductive to the government's long-term aims to decarbonise the UK's energy system if it erodes public trust and compounds local resistance to renewable energy (Wolsink 2007; Ottinger, Hargrave and Hopson 2014). Indeed, such tensions already appear to have affected UK policies for wind energy. The Conservative Party's 2015 election manifesto acknowledged that although onshore wind was making a meaningful contribution to the UK's energy mix: "Onshore windfarms often fail to win public support… and are unable by themselves to provide the firm capacity that a stable energy system requires. We will end any new public subsidy for them and change the law so that local people have the final say on windfarm applications" (Conservative Party 2015: 57). This pledge was fulfilled in June 2015, when the Secretary of State issued guidance instructing planning authorities only to approve new onshore wind projects if "the development site is in an area identified as suitable for wind energy

development in a local and neighbourhood plan"; and/or where, "following consultation, it can be demonstrated that the planning impacts identified by affected local communities have been fully addressed and therefore the proposal has their backing" (Hansard 2015). Although this decision theoretically gave communities a greater voice in planning, wind energy supporters have criticised the decision for creating new biases and inconsistency in the acceptance criteria applied to applications submitted before and after the statement (RenewableUK 2015)[5].

Reflecting on efforts to inject greater democratisation into debates on the justice dimensions of energy transitions, Healy and Barry (2017: 453) argue that addressing climate change and energy security requires radical changes to energy systems and that "*a just transformation of the socio-energy system is a decision to live in a different type of society*" (original emphasis). They nevertheless stress that justice-led decision-making must address the conflict-laden ethics, politics and power dynamics of energy (Jenkins *et al.* 2017) to guard against Machiavellian approaches to energy transition and the treatment of rural areas as energy sacrifice zones (Hernández 2015; Kelly-Reif and Wing 2016). We argue that this necessitates renewed efforts to make energy policy and planning systems amenable to public justice self-recognition and discussion of the distributive and procedural justice implications of energy transitions and the adoption a multi-issue and multi-scalar approach which prioritises procedural fairness in how competing conceptualisations of energy and environmental-social justice and national and local priorities are mediated in policy and planning. First, it entails greater commitments within national policy to managing the value choices presented by renewable energy through discussion rather than imposed agendas that constrain engagement and treat community concerns as a hurdle to be overcome (Cass and Walker 2009; Healy and Barry 2017). Second, it implies readjusting planning policy to place greater emphasis on guaranteeing procedural fairness and consistency in the formulation of local-level justice and acceptability principles for energy projects, and the creation of mechanisms for encouraging all parties to deliberate on the justice issues raised by developments and to facilitate negotiated approaches to arbitrating energy and environmental-social justice conflicts in affected areas (Chilvers 2008; Dietz and Stern 2008).

One possibility, similar to that advocated by Tingey *et al.* (2017), would be to introduce a statutory duty for all local authorities to develop *negotiated low-carbon plans*. They report that although 311 out of 434 UK local authorities had produced energy and low-

carbon plans by early 2017, significant variations existed in their detail and emphasis on "energy" compared with "low-carbon" (which may not include renewables), technologies, and the methods for developing plans (Tingey *et al.* 2017). Alongside strengthening commitments to planned approaches to renewable energy, the NPPF and planning guidance could "justice- and democracy-proof" plans by replacing normative statements with commitments to local negotiation on when projects should be approved, including identifying issues local authorities must consider during negotiations. These might include: separation distances between properties and different types and sizes of renewables; impacts on landscape character, heritage assets and ecology; shadow flicker; criteria for cumulative impacts; and benefit sharing for communities and affected properties. Also integral to this approach would be balancing technical assessments with expectations for participatory planning and other deliberative techniques to encourage wide-ranging input into negotiating criteria for determining proposals (Cass and Walker 2009).

Although locally negotiated energy plans may ease some fear-related barriers to public justice self-recognition and debate on the justice dimensions of renewable energy, further action would be required to facilitate discussion of individual applications. Planning officers currently produce committee reports recommending whether to approve applications based on the officer's interpretation of national policy, the project's characteristics and representations received. Although committees are not obliged accept officers' recommendations, they must specify reasons for rejection and reports form an important part of the evidence base for appeals. One way to diffuse excessive influence by individual officers would be to require planners to produce neutral *issues discussion documents* rather than recommendations explaining to residents and other stakeholders the impact and justice criteria adopted in negotiated plans and arrangements provided for discussing projects. Feedback on discussion documents, again collected through participatory planning, would then provide a key document for decision-making. In so doing, planning officers would seek to promote constructive dialogue by reporting repeated arguments by residents as material justice issues to be considered against negotiated energy plans rather than, as Cass and Walker (2009) observed, dismissing them as self-interested, irrational and unwelcome intrusions into "rational" planning processes (McClymont and O'Hare 2008).

This article has sought to contribute new insights on public engagement with energy and environmental-social justice and the integration of justice issues into debates on renewable energy by drawing attention to deficits in the use of justice arguments by residents during wind energy conflicts in Cornwall. The small number of applications examined limits the scope for more than tentative generalisation and suggestions for fostering greater discussion of linkages between justice and wind energy. However, the contrast with previous studies that indicate strong community views on distributive and procedural fairness in wind energy decision-making (e.g. Bidwell 2013; Zoellner *et al.* 2008) highlights a need for greater investigation of how justice ideas are invoked and influence energy decision-making in "live" planning debates to improve understandings of the political and social factors influencing the mediation of energy and local environmental-social justice and national and local priorities. Surveys and interviews provide useful indicators of individuals' reflective interpretations of distributive and procedural fairness but need to be supplemented by greater use of investigative techniques, such as analysis of public comments on planning applications and observing planning meetings, that directly probe people's confidence to express justice concerns at the sharp end of decision-making. The evidence from this study certainly suggests that a significant gap exists between the two and a need for further research on mechanisms for encouraging and empowering open-ended debate on the justice dimensions of renewable energy

Revising policy and planning to enable greater public debate on the justice dimensions of wind energy siting would almost certainly make renewable energy policy more contested. However, like Cass and Walker (2009: 68), we question whether discussion of values such as justice is undesirable if it enables: "productive forms of engagement… in which multi-directional and open dialogue between all parties is enabled and in which the emotions of public responses are acknowledged and respected as a necessary part of debating what is at stake." This does not imply that justice arguments should become a vehicle for legitimating existing views. Rather, debating justice implies challenging preconceptions and finding points of accommodation within policy frameworks that place primary emphasis on procedural fairness to encourage trust-based dialogue on distributive and procedural fairness in energy siting debates.

The challenge of designing decision-making and consultation procedures that increase people's confidence and ability to contest unfair treatment is also not limited to wind

energy. Similar issues have dogged UK experiences with hydraulic fracturing for shale gas extraction where, in May 2016, the government overturned local authority refusal to grant an operating licence at Preston New Road, Lancashire, despite 18,022 objections compared with 217 expressions of support. Similarly, in December 2016 the high court ruled in favour of fracking at Kirby Misperton, North Yorkshire, where objectors outnumbered supporters by 4,300 to 36 (Kechagia 2017). In both instances, objectors vented frustration at the use of governing powers to support applications but have so far failed to reverse what Cotton (2017: 185) describes as "inherent contradictions of environmental justice in the… Government's localist and planning reform agendas".

Reforming governance processes to enable public discussion of the justice dimensions of energy transitions, and placing procedural fairness at the heart of reforms to give public opinion genuine impact, seem both reasonable and judicious. The thornier question is whether governments are willing to open energy agendas to values as well as "rational" planning considerations. Some of the opinions might prove inconvenient for achieving rapid energy transitions, but a more inclusive approach would help to prevent energy policy being dominated by agenda-driven interpretations of energy and environmental-social justice.

Notes

[1] We use the term "environmental-social justice" to capture the fact that many issues positioned within environmental justice framings extend beyond environmental burdens to include wider social issues affected by energy and environmental policies (Walker, 2009).

[2] Standard letters produced by applicants or agents were excluded to prevent distortion of the dataset. In one example, 162 of 208 submissions were standard letters supporting the application, mostly from people living outside Cornwall.

[3] Although it is unlikely that supporters deliberately emphasised national and international issues to influence appeals, planning inspectors are required to assess applications against

the NPPF and may give less weight to local arguments that fall outside material planning considerations.

[4] Under the Localism Act 2011, the government committed to devolving more decision-making powers to local authorities and to enabling local people to have a genuine say over issues affecting their area (DCLG, 2011).

[5] Even the implications of DCLG guidance remain uncertain at the time of writing. In late 2016, the Secretary of State allowed an appeal in Cornwall arguing that, objections notwithstanding, the proposal indicated that the scheme's impacts are, *or can be*, made acceptable and therefore *can be deemed* to have the backing of the affected local community (emphasis added) (DCLG, 2016).

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