

Local Environment



The International Journal of Justice and Sustainability

ISSN: 1354-9839 (Print) 1469-6711 (Online) Journal homepage: https://www.tandfonline.com/loi/cloe20

Local voices on renewable energy projects: the performative role of the regulatory process for major offshore infrastructure in England and Wales

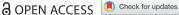
Yvonne Rydin, Lucy Natarajan, Maria Lee & Simon Lock

To cite this article: Yvonne Rydin, Lucy Natarajan, Maria Lee & Simon Lock (2018) Local voices on renewable energy projects: the performative role of the regulatory process for major offshore infrastructure in England and Wales, Local Environment, 23:5, 565-581, DOI: 10.1080/13549839.2018.1449821

To link to this article: https://doi.org/10.1080/13549839.2018.1449821

9	© 2018 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group	Published online: 20 Mar 2018.
	Submit your article to this journal 🗹	Article views: 874
Q	View related articles 🗹	Uiew Crossmark data ☑
4	Citing articles: 1 View citing articles 🗹	







Local voices on renewable energy projects: the performative role of the regulatory process for major offshore infrastructure in **England and Wales**

Yvonne Rydin ¹ a, Lucy Natarajan^a, Maria Lee^b and Simon Lock ¹ c

^aBartlett School of Planning, UCL, London, UK; ^bSchool of Laws, UCL, London, UK; ^cDepartment of Science and Technology Studies, UCL, London, UK

ABSTRACT

There is currently a considerable emphasis on delivering major renewable energy infrastructure projects. Such projects will have impacts on local communities; some impacts may be perceived as positive but others will be viewed more negatively. Any just regulatory process for considering and permitting such infrastructure will need to heed the concerns that local communities voice. But what counts as a local voice? In this paper it is argued that the regulatory process plays a performative role, constructing what counts as a local voice. Furthermore, this has consequences for how regulatory deliberations proceed and the outcomes of regulatory processes. The empirical basis for this argument is a study of major offshore renewable energy infrastructure in England and Wales and the way that it is regulated through a specific regime the Nationally Significant Infrastructure Projects (NSIPs) regime established by the Planning Act 2008. Through a detailed study of eight projects that have passed through the regime, the analysis unfolds the way that the voices of local residents, local businesses, local NGOs and local authorities are constructed in the key boundary object of the Examining Authority's report; it then draws out the implications for the mitigation measures that are negotiated. The research suggests that what counts as a local voice is constrained by how the performative role of the NSIPs regulatory regime differentiates between interests and suggests that new ways of giving voice to local people are required.

ARTICLE HISTORY

Received 10 March 2017 Accepted 2 March 2018

KEYWORDS

Renewable energy; regulation; planning; communities; wind power

Analysing local voices within regulatory processes

Delivering renewable energy (RE) infrastructure is a critical element in collective action to combat climate change through decarbonisation. It is part of sustainable development, part of ensuring "our common future". But this collective action has consequences for individuals, households, firms and communities in the vicinity of infrastructure development, particularly where major projects are involved. They may have to bear impacts, some positive but many negative, associated with the development and operation of this infrastructure; the just sustainability literature draws our attention to this (Agyeman 2013). This raises questions about how the regulatory processes for renewable energy infrastructure deal with questions of who is affected and how they are affected and, further, how their concerns are given expression within such processes. This paper addresses

these issues in the context of the regulatory system established in England and Wales after 2008 for major infrastructure projects, known as the Nationally Significant Infrastructure Projects or NSIPs regime. In particular it considers offshore RE infrastructure, i.e. mainly offshore wind farms but also a tidal lagoon.

While emphasising the role of large-scale renewable energy infrastructure in decarbonisation of energy systems, the discussion of the regulation of such infrastructure here should not be taken as support for an exclusive emphasis on centralisation in the name of sustainability. There is a widespread acceptance that highly centralised energy systems are the result of path dependencies within those systems (GOS 2008) and that a transition towards a more sustainable future will require opening up to a range of decentralised energy options (Lo 2014; Rutherford and Coutard 2014). In particular, decentralised options may well offer greater scope for demand management to run alongside decarbonisation; regimes based on national infrastructure investment currently seem to favour increasing electricity consumption (Bolton, Foxon, and Hall 2016, 1399). That said, decentralisation will need to co-exist with such centralised infrastructure and hence the regulation of low-carbon major energy projects remains an important research focus.

In exploring this, we use a science and technology studies (STS) perspective to see the planning processes as playing a performative role in constructing "local voices". The concept of performativity has two roots, one coming from an emphasis on performance within social life and how this enacts identity (Permezel and Duffy 2007; Platt 2011), and the other from discourse analytics suggesting how repeated utterances through discourses create but also constrain the phenomena that they appear to be simply expressing (Gregson and Rose 2000; Mayhew 2009; Buchanan 2010; Chandler and Munday 2011; Castree, Kitchin, and Rogers 2013). In this paper, we are following the latter use of the term and we are particularly picking up on the importance of repetition within regulation in producing certain categories of local actors affected by the major energy infrastructure. We are also emphasising that the categories of identity cannot be seen as pre-existing and thus as inputs into the regulatory process we are studying. Rather these categories are performed through that process and this has implications for how the regulatory process works.

We do not suggest that planning processes are able to impose views upon local groups or "make up" any construction of local views and actors. Rather we see the planning processes as a particularly important space within which the views of local stakeholders are framed, given expression and represented. We suggest that the regulatory process is co-constituting local voices as they are recognised within the regulatory system; this then becomes an official account of what local people think, feel, want, are concerned about or aspire to and this, in turn, influences regulatory outcomes. In particular, we consider the way different identities for local actors are counter-posed to and distinguished from each other is important (Burchell 2007).

Our focus here is, therefore, distinct from and an addition to the literature that considers the social construction of local voices outside of the regulatory context. This literature broadly began from a starting point that framed local actors as resisting development in their locality, the so-called NIMBYist framing (Bell, Gray, and Haggett 2005). Some work explored the importance of other factors in shaping responses to RE projects such as beliefs about impacts (Firestone and Kempton 2007), knowledge of the technology (Wiersma and Devine-Wright 2014), project-related factors (Gross 2007), symbolic meanings (Devine-Wright and Howes 2010), general values and beliefs (Woolley 2010; Bidwell 2013) and geographical variation (Cotton and Devine-Wright 2011; Devine-Wright 2011). Particularly influential is the idea that local views on wind energy should be seen in terms of place attachment (the emotional bond between person and place) rather than NIMBYism, with its pejorative connotations of selfishness and hypocrisy. This has been explored with regard to onshore RE (van der Horst 2007; Devine-Wright 2009, 2012; Devine-Wright and Howes 2010; Jones and Eiser 2010; Swofford and Slattery 2010; Haggett 2011; Hall, Ashworth, and Devine-Wright 2013), as well as offshore RE (Haggett 2008, 2011; Firestone, Kempton, and Krueger 2009, 2012; Woolley 2010; Devine-Wright 2011; Ladenburg and Möller 2011; Waldo 2012; Walker, Wiersma, and Bailey 2014; Wiersma and Devine-Wright 2014; Westerberg, Jacobsen, and Lifran 2015; Ladenburg 2016).

We seek to supplement this rather different strand of research with an emphasis on how the regulatory processes themselves, through which decisions on RE infrastructure are taken, influence the characterisation of what a "local actor" is and then consider how this impacts on the way the regulatory process works. Studies on renewable energy and regulatory processes have typically assumed that local views are pre-existing (Graham, Stephenson, and Smith 2009) and need to be given space for expression within the planning process, leading to a focus on the opportunities for and measures taken to engage local communities (Gray, Haggett, and Bell 2005; Wolsink 2010; Woolley 2010). We argue that the framings provided by the regulatory process itself may exercise an influence that renders such recommendations less effective than might be expected. Our research questions align with those identified by Metzger, Soneryd, and Linke (2017), who ask for an emphasis not on who the legitimate stakeholders in planning are, but rather on the processes by which they get defined. We similarly ask how local actors in NSIPs are framed and what are the implications for regulatory decision-making?

The paper explores this argument though an analysis of research undertaken during 2015–2016 on eight offshore RE projects that had gone through the NSIPs regulatory regime. It begins by outlining the NSIPs regime and elaborating the STS framing of that regime. It then outlines the methodology of the research project that the empirical analysis is based on. Following sections discuss the construction of categories of "local actor", the ways that their voices are framed within the regulatory regime and the implications, before concluding on practice in a global context.

The NSIPs regime: an introduction and STS conceptualisation

In England and Wales, the regulation of RE infrastructure takes two possible forms. Larger projects that are designated NSIPs go through an expedited regime, handled by the Planning Inspectorate (PINS) a central government arm's length agency) and decided on by the relevant Secretary of State. Other projects go through the "normal" planning process whereby the local planning authority considers and decides on applications for infrastructure development (although all onshore wind, whatever its scale, was moved back into the remit of local planning in 2016). Our research looked at the process for handling offshore renewable energy and concentrated on the NSIPs regime.

The NSIPs regime was set up by the Planning Act 2008 (TSO 2008). Under this, infrastructure projects go through a strictly time-limited process of examination. Once the developer informs the PINS of an intention to submit a proposal, the pre-application stage commences and the project is logged on the PINS "portal". The applicant must then consult with statutory and non-statutory bodies and the public, in addition to undertaking other preparatory work, such as environmental assessment. The next stage of "acceptance" has a strict 28 day limit, during which time PINS must assess the application against given criteria, before deciding whether to accept the application and move to examination.

The examination can only last up to six months whatever the complexity of the project and is led by the Examining Authority (ExA, who may be an individual or a panel). All "interested parties" (see below) can make representations. The process is primarily a written one involving the exchange of documentation. However, there are also a number of hearings of different kinds as well as site visits; the scheduling of these activities is largely decided at the outset. The conduct of the hearings is at the discretion of the ExA. There is a general presumption against cross-examination, although the ExA may permit questioning of a party giving representations if they consider it necessary. The ExA are encouraged to adopt an inquisitorial approach throughout the examination.

During the examination a number of measures for mitigating the impacts of the project may be agreed and these will be recorded in amendments to the draft Development Consent Order (DCO) prepared by the applicant and in associated legal agreements (notably Section 106 agreements). Different parties may also sign Statements of Common Ground (SoCGs), indicating agreement (or indeed disagreement) on a wide variety of issues. On completion of the examination, the ExA has up to three months to produce a report to the relevant Secretary of State with a recommendation

on whether to grant consent and including a final draft DCO. The Secretary of State then has three months to make their decision.

Central government guidance sets out the principal issues to be considered during the examination in National Policy Statements (NPSs). They also set out the presumption of need for such infrastructure from a national interest perspective. Indeed the whole NSIPs regime was established to facilitate infrastructure development and we have argued previously this has given rise to concerns that local views may not be adequately recognised within the NSIPs process (Lee et al. 2013; Rydin, Lee, and Lock 2015).

While this gives a descriptive account of the NSIPs regime, it is insufficient for considering how local voices are constructed within it. For this we turn to a conceptualisation of the NSIPs regime based in STS. We are particularly interested in how the NSIPs regime is implicated in this process of constructing voices. We see the procedures of the regime as having a performative dimension, in that they are capable of constructing identities and positions for actors that then have an impact on how the discussion and decision-making proceeds. What is significant are the categories of actor that are used within the regulatory discussions and how they are framed. This is not to deny that there are entities that are individual residents, families and local businesses. Rather, it is to claim that the way that these entities emerge within regulatory processes is important and that this has consequences for the regulation of such infrastructure. Thus categories of local interests are not simply descriptions of an existing reality but are actively created to organise that reality in a particular, comprehensible way for the regulatory decision-maker.

This is explored in more general terms by Michael in Constructing Identities, where he considers the contribution of STS to a broader social constructivist position examining how "social practices constitute givens which have consequences", "givens" referring to "categories which would otherwise remain routinely unproblematized" (1996, 5, italics in original). Reconsidering the case of fishermen from the classic research by Callon (1986), Michael emphasises the "actions by which an entity attempts to impose and stabilize the identity of other actors" (Michael 1996, 53, our emphasis). He stresses the way that creating such a stable identity involves delinking one actor from certain of their associations and imposing (with acquiescence) a role on that actor. Thus in the case of local actors, creating categories such as "local resident" or "local business" or "local NGO" involves separating out overlapping associations by which one individual may be multiply connected through residence, employment and civic society activities or have connections beyond the locality.

Callon emphasises the performative dimension of planning processes when discussing the politics surrounding a road project researched by Barry (2001):

"The protest does not bring already constituted groups into the public space.... The groups taking part in the demonstration defend identities that are not definitively and stably established. They are forged and re-forged in the action itself.... it plays a part in the active composition of new identities". (2010, 124)

Marres (2007) also draws attention to the way that publics are called into being through issue formation, although she focusses more on the public involvement that occurs outside formal procedures. For us, there is still value in considering how such formal procedures, including those involved in regulatory processes, contribute to the construction of the publics they are claiming just to engage. We agree with the approach taken by Pieraccini, "asking how the separated interests we often take for granted are actually produced by particular regulatory framings" (2015, 21).

STS offers conceptual language that can help specify these construction processes and the performative role of regulatory processes. For example, when considering how heterogeneous elements are brought together in socio-material processes, emphasis may be given to an "obligatory passage point" through which sets of relationships have to pass in order to be stabilised. The form of this obligatory passage point can shape the nature of those relationships going forward. Michael (1996) sees obligatory passage points as narrative bottlenecks, through which entities must pass in order to articulate both their identity and their raison d'être. One example of this is the filtering of actors who are allowed access to the NSIPs process. For this they have to pass through the obligatory passage point of being defined as an "interested party". To make written representations, attend and speak at hearing and be involved in negotiations and act as signatories to documents such as SoCGs, every actor has to be registered as an interested party, usually at the outset of proceedings.

The language of "Interested Parties" itself positions actors within the regime on the basis of their interests as opposed to values or principles or feelings, say. It further emphasises their position as having personal interests as compared to the national interest represented by the NPSs, and being an individual actor rather than part of a community. But this is just the starting point for a fuller analysis of how local voices are constructed within the NSIPs regime. In researching this, we acknowledge that there will be individuals, residents and businesses who are not considered "local" within the regulatory process but are impacted by these projects; however, we are interested in how the regulatory process constructs the local communities and gives them a voice within that process. We next set out our methodology for the empirical work that allows such an analysis.

Methodology

The research presented here was conducted under an ESRC-funded project that looked at twelve RE cases that had been through the NSIPs regime by the start of empirical work in September 2015. In this paper we focus on eight offshore RE projects (see Table 1 and Figure 1). For brevity, each project will just be referred to by its location. Together the eight cases would potentially add over 4,000 MW of electricity generating capacity.

The methodology derived from the STS framing and, through the data collected, thus also drove the analysis. The focus throughout was on understanding how the local voices were constructed through the regulatory process and how this affected decision-making. In approaching this, the research focussed on the ExA's reports, seeing them in terms of another key STS concept, the boundary object (Star and Griesemer 1989). This refers to an artefact that is able to move between different organisational contexts and be legible in both. The ExA's report has a very particular status within the NSIPs regime as it stands as the record for all the twists and turns of deliberation and decision-making that lead to the final recommendation. To follow an STS perspective, it is the central artefact of the NSIPs regime and it stands as a key boundary object, passing between the world of the PINS – with its exchange and online publication of documents, its hearings and site visits – and that of central government, where ministerial decision-making is authorised. A concern, an aspiration, an argument, a

 Table 1. Cases of offshore renewable energy infrastructure.

NSIP cases				
(OWF = offshore wind	Date of			Focus Groups
farm)	decision	Developer	Infrastructure	(with location)
Kentish flats OWF extension	2013	Vattenfall Wind Power Ltd	10–17 turbines, 90–141 MW	
Galloper OWF	2013	Galloper Wind Farm Ltd	140 turbines, 504 MW max.	lpswich
Triton Knoll OWF	2013	Triton Knoll Offshore Wind Ltd	288 turbines, 1200MW	
Burbo Bank OWF extension	2014	DONG Energy Burbo Extension (U.K.) Ltd	69 turbines, 259MW max.	Hoylake
Rampion OWF	2014	E.ON Climate & Renewables U.K. Rampion Offshore Wind Ltd	175 turbines, 700MW max.	Brighton
Walney OWF extension	2014	DONG Energy Burbo Extension (U.K.) Ltd	207 turbines, 750MW	Lancaster
Navitus Bay OWF	2015	Navitus Bay Development Ltd	194 turbines, 970MW max.	Bournemouth
Tidal Lagoon Swansea Bay	2015	Tidal Lagoon Power Ltd	240 MW	Swansea



Figure 1. Case study locations.

piece of evidence has to be present in the report if it is to have any significance and the way it is expressed matters. Thus, the report becomes the central obligatory passage point within regulation, one through which all relevant material must pass, leaving its traces in the official record, if it is to exercise any agency. For these reasons, the ExA reports played a central part in our research methodology and subsequent analysis.

The first stage of empirical investigation involved the detailed reading and coding of documentation held on the PINS website for NSIPs. We read and coded the ExA Reports for our cases with a set of 119 codes organised under five themes of: actors; the development; policy; evidence; and mitigation. After initial pilot reading and discussion of a sample of reports by the team, the coding was undertaken by one researcher; however, the coding was tested through blind re-coding of randomly sampled text extracts by two coders and this suggested that the coding was robust and replicable. Analysis was conducted using repeated NVivo code runs, emergent patterns being tested out by further runs in an iterative manner.

The second stage of the project involved focus groups with local people identified through the online documentation, six of which were for offshore cases. On average seven people participated at each event, including local residents, people with local businesses, and representatives of local groups. The discussions centred on participants' experiences and views in relation to the examination, around five broad topic areas: getting involved; presenting evidence to the ExA; engaging with others; influence; and reflections. The discussions at these focus groups were recorded, transcribed and also coded.

This research was supplemented with reading of certain Local Impact Reports prepared by local authorities and Environmental Statements submitted by developers. In addition, six interviews were undertaken with local interested parties for the one case – Navitus Bay – where development consent was refused. The extra interviews for Navitus Bay were conducted by telephone with six local people, and addressed the same topics as the focus groups. For context, two hearings, a public exhibition and one site visit for "live" cases were attended.

All this material was synthesised through considering the lines of analysis arising from the different data sets (report, focus groups, interviews) and how they supported, nuanced or challenged each other. An emerging pattern from a dataset led to further examination of other datasets for corroboration (or not) and nuancing the analysis. This was repeated over an extended period to develop the line of argument. In this way a composite picture emerged across the 12 cases linking voice, evidence and decision-making. In the following analysis, for the theoretical reasons outlined above, the ExA reports are given particular prominence but supplemented with quotes from the focus groups. The next four sections present this analysis under headings for the categories of actors that were found to be distinctly constructed within the NSIPs process.

Local voices: residents

As indicated above local residents can register as interested parties, although this terminology can cause confusion as was expressed by a participant at a focus group:

I think the language is awkward right? For example you have to declare yourself as an Interested Party ... now, I was puzzled, I've not had that experience before and I thought it sounded very formal and I wasn't really sure if I qualified to be an Interested Party or not. I didn't know what that meant ... I didn't realise that anybody actually can be an Interested Party. That local residents actually can be Interested.

Residents register as an interested party on the basis of their address, their place of residence which becomes their dominant framing. The proximity of a resident to the project site is considered relevant in the weight put on their accounts in the ExA reports and specific distances are often given to describe the relationship between residents and the project. This echoes Wiersma and Devine-Wright's finding (2014) of the importance of distance to the project. They question whether this distance provides an accurate metric for local concerns about a project's impact and draw instead on Devine-Wright's wider work on place attachment. Interestingly, this place attachment is often explicitly acknowledged in ExA reports. Thus in Burbo Bank the ExA notes:

It is important to acknowledge the sincere care, concern and love for the qualities of their local environment and the opportunities that it provides that are expressed in the representations of Mr & Mrs Hall, Mr Bradshaw, Mr Smart, Mr Winterson and Mr Edwards together with the Wirral Society and Hoylake Village Life. (ExA Report, para 4.18, 49)

Yet acknowledgement does not necessarily translate into giving weight to place attachment. Rather the language in which such attachment is expressed in the reports emphasises its subjective nature: residents "express concerns", "take the view" that ... and "fear" change. Claims are sometimes reframed as preferences: "the strong concerns of local residents who would prefer not to look at wind turbines must be acknowledged ..." (ExA Report, para 4.224, 90).

While residents are recognised as expressing attachment to local places, this is not considered central to the regulatory decision-making. Rather, in order to enable this decision-making, the emphasis is on providing an apparently more objective benchmark for considering local concerns. Hence the judgement about the impact on residents is generally articulated in terms of a sensory account of how residents relate to their area, what we might call "reasonable enjoyment", rather than in terms of an affective account as suggested by place attachment. The sights and sounds that residents experience are the relevant focus, not how they feel about them. The daily experience of residents and their familiarity with the local area is, however, relevant in providing an account of such enjoyment so that the ExA reports mention, for example, residents going walking locally and how they experience noise levels and appreciate views.

Prior experience of other infrastructure projects can also be relevant, as then local residents are able to recount how the construction and operation of a project has already impacted on their reasonable enjoyment on a daily basis, say due to the noise of piling activities or nuisance from

traffic. However, there are limitations to the weight that can be given to this experience if it is expressed in what might be considered personal and anecdotal terms; as the ExA in the Burbo Bank case put it: "I have taken into account Mr Edward's doubts about the applicant's boat traffic survey, but note that he did not provide any evidence as to why that survey might have been inaccurate, beyond his own anecdotal observation ... " (ExA Report, para 4.206, 87). One further aspect to this emphasis on reasonable enjoyment might be noted; this reasonable enjoyment could be anyone's, while place attachment is always uniquely personal. The ExA seeks to understand how such enjoyment might be impacted, and how others might experience that enjoyment; thus, they consider the experience of noise, views, general ambience, etc. in general terms, separated from the existing residents' current experience and assessed in terms of how others might enjoy these features. Hence, the local residential voice becomes wedded to local sights, sounds and sensations that can generally be expected to arise from the proposed development. It is notable that this is individual experience not a collective one.

It is clear from the ExA reports that more emphasis is given to the voicing of local concerns where it is linked to presence by residents within the examination, i.e. physical voicing. If the ExA invites further representations from local residents and/or extends an invitation to become more involved through detailed discussion of evidence, site visits and/or negotiations with the applicant, then local residents have to be able to respond to such requests and be present if their voice is to carry any weight. However, this can be problematic for local residents. In the focus groups, many participants described involvement in the process as "stressful" or "intimidating". The context was "hostile" and they were "apprehensive". As a Navitus Bay resident put it: "It is intimidating in these situations, isn't it? Absolutely. And very very few people are comfortable with public speaking and standing up in a hall with so many people. It is just horrible for most people". A resident in the Walney case described the hearing a "almost like a courtroom atmosphere" and said: "it didn't make you feel that anything you said was going to be taken that seriously because you knew there were some very high power people, very clever people who can probably rip your argument into shreds". The sense of residents being outside the process and special efforts being needed (by the ExA) to include them is strong.

Thus, local residents are framed within regulation as located near the project, attached to their locality and concerned about development impacts but in a personal, individual, anecdotal manner. They are seen to engage with the examination in a limited manner and all these features justify limited amendments to the proposal and its consent. For, the ExA reports suggest little in the way of links from residents' representations to specific mitigation measures that would alter the project's impact. In some cases, specific provisions in the consent are linked to concerns raised by local households but these are in the minority. Occasionally Codes of Construction Practice and similar management schemes are relied on to deal with concerns raised and reference to later planning application processes or a community fund may be mentioned. But the way that the voice of local residents is constructed and the limitations on presence by local residents within the examination do not create strong pressures for such changes to be made. The ExAs themselves, therefore, judge whether reasonable enjoyment is affected and weigh this in the light of NPS guidance on the need for the projects and the expectation that some impacts are inevitable. This was reflected in the discussion in the focus groups where some scepticism was expressed by local residents on whether their concerns were being listened to and acted on; as one local resident in the Galloper case said: "people's worlds are different and something small should never really [be] pooh-pooh[ed] because it could be anything to them".

Local voices: businesses

Local businesses – principally fishing and tourism – are treated as a distinctive category of local interests within the examination, regardless of whether local business owners are also local residents or, indeed, members of local NGOs (see below). The voice of local businesses is framed in terms of the evidence they can provide of current economic activities and how this might be affected by the development project. This fits with the intent of regulation to be evidence-based. Thus, in the Kentish Flats case, local fishermen were a source of details of the active fishing fleet and, in the Swansea Bay project, of the extent of marine traffic into Swansea and Neath Ports. This can also take the form of critique of data presented by the applicant; in the Swansea Bay case, the local business view was "that the data sets in the ES [Environmental Statement] regarding commercial fish landed ... were under-reported" and "The group provided details of their recent fish and shellfish catches within their representation" (ExA Report, para 4.24.17, 183).

In making the link between local economic activity and the infrastructure project, the key issue that ExAs focus on is how far a specific business activity might be affected by the construction activity and the ongoing operation of the infrastructure. Thus in the Kentish Flats case, local businesses were reported as stating that "The proposed wind farm extension might also extend the area within which certain types of fishing may be precluded or severely restricted by the existence of inter-array and export cables" (ExA Report, para 5.44, 94), and suggesting how the oyster and shellfish populations being farmed might suffer damage due to the project:

It was suggested by individual fishermen (REP1, REP20) that star fish infestation had caused considerable damage to oysters and other shellfish within the site of the original Kentish Flats wind farmThere was therefore concern that the star fish infestation could be replicated as an effect of the KFE project. (ExA Report, para 5.20, 86)

As with local residents' claims, the prior experience of the local fishing industry with the existing windfarm gave more weight to their claims about the impact on business activity.

Local tourist businesses generally found it more difficult when predicting impacts on seaside visitors of offshore RE infrastructure. In the Navitus Bay case, the Swanage and Purbeck Hospitality Association sought to engage with the applicant's visitor surveys to argue about the likely reduction in visitor numbers and the Bournemouth Tourism Management Board used the same survey to argue for a loss in local language school revenue and loss of jobs. But the question that was often raised by the ExA was whether local businesses were the best judge of the likely impact of the project on their activities. In the Navitus Bay case, when considering how far construction would disrupt business activities, the ExA stated that it "considers that the businesses themselves are best positioned to make that judgement" (ExA Report, para 11.7.14, 250); however, they did not extend this to consider local businesses the best judge of longer term impacts, such as loss of trade once the projects were operational. Local businesses were not seen as experts on the wider local economy.

By comparison with local residents, there is much more evidence in the ExA reports of representations from local businesses leading to specific mitigation measures. Conditions are added in to the consent, supplemented by unilateral undertakings (Section 106 agreements offered by the applicant) and mutual agreements covering diverse aspects of construction, operation and subsequent monitoring.

Given that local business concerns are almost exclusively framed in terms of economic impact, agreements on financial compensation were seen as particularly pertinent. Thus, in the Kentish Flats case:

The SoCG with the WFA [the local fishing association] makes it clear that the agreement includes provision for funding that would enable the fishermen to diversify into forms of fishing different to those that would be affected. (ExA Report, para 5.38, 92)

As a fisherman in the Walney case focus group noted: "They were keen to pay compensation because ... if we continued doing what we were doing they couldn't carry on doing what they were doing. That is why they were keen to sort this out".

Such financial agreements effectively remove the local business voice from the regulatory deliberations. In the Kentish Flats case: "As a result of these agreements all the parties with interests in commercial fishing have withdrawn their objections to the proposed project" (ibid). This was reinforced by the use of SoCGs that were concluded with local businesses during the examination.

In this way, issues that local businesses had raised were removed from further consideration within the regulatory process. Thus in the case of the Kentish Flats OWF Extension "It appears that the common ground discussions between the applicant and the fishermen bore fruit in that agreements were subsequently concluded with the individual fishermen/companies whose operations would be most affected by the proposed development" (ExA Report, para 5.38, 92). Similar agreements were apparent in all the cases studied and, in each case, such agreement rendered the local business voice silent thereafter within the examination. However, local businesses were seen as potentially active within ongoing governance for the project. In the Walney case, the SoCGs signed with National Federation of Fishermen's Organisations endorsed the liaison arrangements that the developer had instigated. Community Liaison Groups or Fisheries Working Groups are often promised or actively established; in the Galloper case, the latter was referred to as "the forum for agreeing coexistence strategies".

Thus, local businesses are framed as essentially financially concerned, able to offer limited economic evidence and potentially involved in longer term governance but able to be silenced within the regulatory process by a series of agreements concluded with the developer.

Local voices: NGOs

The third set of actors that are framed as local interests within the NSIPs process are the local NGOs. These are a mixture of organisational structures; they may pre-date the NSIP proposal or be created in response to it. Like the local authorities considered next, such NGOs are framed as representing collective or public interests, rather than just an arithmetic amalgam of individual residential and/or business interests. They are seen as presenting views and concerns as collective, whereas the residents and businesses are always seen as individual households and firms who happen to be colocated in proximity to each other. This is related to the larger spatial remit that such NGOs are often emphasised as representing, a contrast with the emphasis on proximity when residents' interests are considered.

While local NGOs may echo the emotive and aesthetic concerns of residents, they are more likely than residents and businesses to be regarded as a potential voice of scientific expertise. Some NGOs are a source of data on local habitats and species of flora and fauna, for example, having quantified and researched this themselves. In the Navitus Bay case, it was acknowledged that more use might have been made of ornithological expertise within local NGOs (ExA Report, para 6.3.81, 102). NGOs are also presented as offering more wide-ranging evidence on the impacts although many concentrate on ecological and landscape/seascape issues. The key point is that this is usually articulated in the same technical/scientific terms as the evidence presented by the applicant and expert agencies (such as Natural England) and thus such NGOs can potentially be seen on a par with such accredited expertise. For example, in the Kentish Flats case, Kent Wildlife Trust (KWT) "raised concern that thornback rays, a species identified in the U.K. Biodiversity Action Plan, may be affected adversely by electromagnetic fields ... generated by the proposed inter-array and export cables associated with the ... project". (ExA Report, para 5.8, 83); they further offered evidence concerning "the potential impact upon marine mammals of the piling and construction activity that would be necessary to deliver the proposed development", particularly on seals (ExA Report, para 4.73, 41).

Local NGOs also offer critique of evidence on these expert-equivalent terms. For example, in the Rampion case, the local NGO critiqued the applicant's surveys suggesting that they "had failed to capture data relating to large 'pulses' of migrant birds, specifically Great and Arctic Skua; and that this omission had led to underestimation of mortality" (ExA Report, para 4.218, 81). In the Navitus Bay case, the NGO Challenge Navitus offered a wide-ranging critique of the technical evidence submitted concerning birds, marine ecology, noise, the local economy, etc. which became a focal point for debate.

As experts, NGO arguments and claims can also lead to calls for new evidence. In the Rampion case, "the issue of potential damage or disturbance to cuttlefish had been raised at the preexamination stage by Sussex Wildlife Trust (SWT) in connection with potential sensitivity to noise" (ExA Report, para 4.200, 75); in response to this, underwater noise specialists were appointed to review available evidence. Challenge Navitus' insistence on the need for more information in the assessment of Sea Lamprey also led to additional information from the applicant and eventually a SoCG with Natural England (ExA Report, para 20.6.14, 414 and para 20.6.17, 415).

This status is confirmed by local NGOs being called on to agree SoCGs concerning scientifically framed evidence. The signing of such artefacts by local NGOs confirming the acceptability and appropriateness of surveys or modelling is widespread. For example, in the Navitus Bay case, Challenge Navitus engaged a consultant to contest the findings of the applicant's ecological evidence, resulting in extensive debate on the data and modelling used at a hearing; the ExA then asked the two parties to resolve their differences and provide an agreed position through a SoCG.

As a result of being viewed as conversant with technical evidence, there are links made in the ExA reports connecting NGO representations with changes to projects. In the Swansea Bay case, links were drawn between changes to the consent, including the requirement for a mitigation scheme, and concerns raised by local NGOs (even against the applicant's wishes). Monitoring measures, specifically for Herring and Great Crested Grebe populations, were also introduced as a result of local wildlife NGO concerns. In the Galloper case, the acceptance by wildlife NGOs of the measures for marine and intertidal ecology assessment, monitoring and mitigation was part of the process by which the draft consent was finalised; and in the Kentish Flats case, a specific mitigation protocol was proposed and agreed to deal with the impacts on marine mammals that the KWT had expressed concern about.

The perceived ability to engage with evidence on the same technical basis as the applicant and expert agencies is key to being heard within the regulatory process. Where the local NGO is not seen as doing this, its voice carries little weight in the deliberations. For example, the evidence offered by the South Downs Society in the Rampion case was regarded as too generalised to be significant: "It was also apparent that the case put forward by the South Downs Society was expressed in general rather than specific terms" (ExA Report, para 4.83, 46); in the Kentish Flats case, where KWT did not provide evidence which convinced the ExA, their concerns did not lead through to mitigation measures. For example, with reference to compensatory habitat management measures in marine conservation areas close to the proposed site:

In my judgement KWT did not produce convincing evidence to demonstrate that such compensatory mitigation would be required to offset any lasting effects upon seals or seal populations in the area from construction, operation or decommissioning of the wind farm. (ExA Report, para 5.6, 82)

The influence of NGOs rests on their being framed in terms of expertise.

Local authorities

So far the local voices discussed are based in the private sector or civil society. However, local authorities exist in order to provide a democratic local voice for the collective community in the area. They also have various statutory duties under the planning system to provide policies and plans that encapsulate local views in some aggregate way. So it is reasonable to ask how the voice of local authorities is heard within the NSIPs process. Even if the local authority pre-exists the NSIP process as an organisational entity, it still has to be constructed as a voice within the regulatory deliberations. Interestingly, the voice of the local authority is expressed through specific artefacts as a kind of metonymy. There are two examples of this.

The first relates to policy prepared by local authorities. Where there is a local policy that is relevant to the development proposal then this is noted. Generally such policies are in support of the development as many local plans contain policies favouring renewable energy. However, these local policies have to be seen in the context of the NPS framework, which takes precedence where NSIPs are concerned. Where the local policies are in support, they become largely redundant, just reinforcing the more significant policy support to be found in NPSs. Should they oppose the project, the NPS would carry greater weight and hence the voicing of local authorities – and the collective community they represent – through their policy positions is not loud.

The second concerns the Local Impact Report (LIR) prepared by local authorities which are a frequent reference point in discussions of the project. These reports set out the range of possible impacts as suggested by guidance, including specifically "local" topics such as planning history and transport patterns, as well as area characteristics and site constraints; this "should draw on existing local knowledge and experience" (PINS 2012, 5). However, the tone of the LIR is often neutral. The local authorities recognise that any conclusive judgement on the balance of impacts lies within the remit of the ExA and does not fall to their responsibility.

In addition, there is the role of the local authority as a key actor with regard to future governance. Here we see a more active voice in which the local authority is making comment on and decisions about different mitigation measures, expressing a view on whether it considers them acceptable and feasible. The local authority voice is rather detached except where these mitigation discussions are involved; here they act as a key arbiter of whether specific measures are achievable or not. Given that the local authority will have oversight of the implementation of the planning consent and any associated S.106 agreements and conditions during the project's life, their concerns often lead to changes in the consent. Here the public administration role of local authorities takes precedence over their democratic positioning as a collective voice for local communities.

Conclusions

We have put forward an STS-inspired analysis of the regulatory decision-making processes concerning offshore RE infrastructure, emphasising the way that local actors and their voices are performatively constructed and responded to within the processes. The analysis suggests that local interests are constructed as quite distinctive local voices within the NSIPs process and that this has consequences for the regulatory decision-making. The local residential voice is highly individualised and framed on the basis of proximity to the project; while the emotional affect of place attachment is acknowledged, it is the apparently more objective test of reasonable enjoyment that is deployed to judge the significance of project impacts on residents. This puts more emphasis on the sensory experience of anyone in the locality rather than the emotional attachment of existing local residents. In addition, there is often a limited presence of local residents within the examination, related to experiencing the process as intimidating and stressful. All these factors mean that local residential voices are not often directly linked to mitigation measures decided during regulation.

By contrast, local businesses voices are framed in terms of economic impact and providing evidence of that impact on the business (if not the wider local economy); this leads directly to mitigation measures to offset such impacts, including the offer of financial compensation. Agreement on mitigation measures typically results in the silencing of concerns although businesses are seen as potential long-term actors within the governance of the projects. Local NGOs can be a significant voice for the locality, self-consciously representing local communities and a collective local view of the public interest. However, their significance within the regulatory process depends on their framing as experts, engaging with their own and other's evidence in technical and scientific terms. This puts them more on a par with the applicants and expert agencies and there are examples of this being effective in leading to mitigation measures. Finally, the local authority voice is rather detached except where mitigation discussions are involved where they act as a key arbiter of whether specific measures are acceptable and achievable or not (see Jay 2008, for continuity with the pre-2008 situation).

This suggests some concerns over how local people are heard within the regulatory process for offshore RE infrastructure. We have seen how the nature of local lives is simplified by the distinct framing of voices into different categories, which denies the way that those lives are the result of interconnected relationships within civil society and the local economy and individualises residents particularly. In this way, the complexity of how a new major infrastructure project may impact on the locality and its people is rendered simpler and atomised into a set of distinct questions. Will reasonable enjoyment be impacted? Can the economic effects on businesses be compensated? This is compounded by the way the strains and constraints imposed by the institutional arrangements of the examination, particularly those for giving oral representations at the hearings. The quotes from the focus groups emphasise how difficult local people find it to speak at these events and also their awareness that they are not "experts". The expectation that representations from local people and organisations will be presented in technical and scientific terms is particularly problematic. The way that local people wish to tell the complex interconnected stories of their lives may not fit within the accepted frames of expert evidence.

Our work unpacking how the local "community" is framed within planning regulation for major RE projects builds on related research. For example, Rudolph, Haggett, and Aitken (2018) show how the community compensation schemes themselves encourage different constructions of the community and that the way the community is defined is closely linked to how benefits are defined within these schemes. Work by Bristow, Cowell, and Munday (2012) also points to the performative nature of community benefits schemes in extending the notion of community from a community "of place" to an "affected" community, widening the spatial reach. However, both of these papers adopted a unified notion of community, reflecting the framing of the community benefits schemes themselves. We show how this apparently unified community is broken up when regulatory decision-making is at stake.

We argue that the structuring of regulatory processes has a wider and perhaps more subtle impact than has previously been realised. Aas et al. (2017) have shown how the regulatory agencies' handling of complex and ambiguous issues creates "trolls" that can erupt and trigger opposition, and research by Aitken, McDonald, and Strachan (2008) noted the differential attention to issues with a strong emphasis on ecological, noise, and landscape issues. But it is in the defining of the very actors that such planning processes are meant to engage with that we see powerful dynamics at work. Aitken, et al. (2008) describe the public inquiries of the planning system as representing "exercises in social control"; we would echo that and see our research as extending our understanding of the subtle discursive forms of control. We align our findings with those of Barnett et al. (2012), who considered how publics are imagined in public engagement activities and with Cotton & Devine-Wright (2012), who show how key electricity industry actors conceptualise publics, stakeholders and consumers and how these inform their engagement practices.

Changing a regulatory system is difficult. Institutional arrangements quickly become embedded and the NSIPs regime has the authority of central government backing. Toke, Breukers, and Wolsink (2008) and Cowell (2010) show how the centralisation of decision-making is a response to a key tension in wind power deployment and thus is likely to persist. This means it is even more important to consider how local voices are supported. Currently the institutional arrangements of the NSIPs regime seem to be reinforcing the already widely known inequalities in the politics of local planning. How might we respond?

Looking across research on local communities and renewable energy, particularly wind power, in different geographical contexts (England, Wales, Denmark, the Netherlands, U.S.A.), there is a tendency to make quite broad-brush arguments for greater participative efforts and a more deliberative approach (Loring 2007; Ritchie and Ellis 2010; Swofford and Slattery 2010; Wolsink 2010). Our research suggests that this is not likely to be sufficient. The construction of differentiated identities has consequences that relate to the way that different groups benefit from the outcomes of regulatory decision-making. Differentiating sectors of the community could be said to part of a "divide and rule" strategy so that the overall agency of that community is reduced vis-à-vis the infrastructure developer and expert agencies. Furthermore, the complex, inter-related nature of communities is denied by this differentiation. This may mean that regulatory outcomes are not those most beneficial from the perspective of the local community as a whole; the local public interest may be being denied.

Research in other geographical contexts has suggested alternative ways of constructing a diverse community which may help inform future practice. Anderson (2013) has shown how different communities in Australia impacted by wind power proposals can be identified by their overlapping social capital networks and they argue that this may suggest the need for different public participation strategies for the different networks. In a French context, Kermagoret, Levrel, and Carlier (2014) use the community of practice concept to identify sectors of the local community affected by offshore wind, favouring this over the sectors suggested by the prevailing institutional arrangements and arguing that this framing offers greater possibilities for protecting ecosystem services. More provocatively, Jolivet and Hieskanen (2010) argue strongly that new framings for local community participation and controversies surrounding offshore wind should be allowed to emerge. Rather than devising "recipes" for public participation, they see each "assemblage" for a project and the associated local community dynamics as unique. While institutions can provide spaces for new views to emerge, they should not impose categories where possible.

This would require greater openness in the institutional arrangements than many regimes currently permit, including both options for innovative physical and virtual spaces of engagement and allowance for the time that this may take. "Time out" for such engagement should perhaps be permitted within the strict time-constraints of a regime such as the NSIPs regime. In addition, an openness to new framings for local voices should not divert attention from the need fully to support the involvement of such actors. We have also noted that local NGOs, who can offer representations framed as expertise – such as ornithological knowledge or landscape visualisations or heritage knowledge -may act as a significant intermediary, raising issues affecting local interests and a broader conceptualisation of the local public interest in a manner that is more effective within the regulatory process. However, they are often financially constrained in playing this role. NGOs could potentially engage in discussion on impacts on more equivalent terms to the applicant and expert agencies. In an institutional context with more moments of openness to fresh framings of local concerns, NGOs may be well-placed to capitalise on the opportunities for influence this offers. In this context, financial support for such NGOs could then enable the new moments of openness within regulatory processes to have greater impact.

Note

1. http://infrastructure.planninginspectorate.gov.uk/

Disclosure statement

No potential conflict of interest was reported by the authors.

Funding

This work was supported by the U.K. Economic and Social Research Council under Award No. [164522].

ORCID

Yvonne Rydin http://orcid.org/0000-0001-8283-9827 Simon Lock (D) http://orcid.org/0000-0003-2645-8549

References

Aas, Øystein, M. Qvenild, L. C. Wold, G. B. Jacobsen, and A. Ruud. 2017. "Local Opposition Against High-Voltage Grids: Public Responses to Agency-Caused Science-Policy Trolls." Journal of Environmental Policy and Planning 19: 347-359. doi:10.1080/1523908X.2016.1213625.



- Agyeman, J. 2013. Introducing Just Sustainabilities: Policy, Planning and Practice. London: Zed Books.
- Aitken, M., S. McDonald, and P. Strachan. 2008. "Locating 'Power' in Wind Power Planning Processes: The (Not So) Influential Role of Local Objectors." *Journal of Environmental Planning and Management* 51 (6): 777–799.
- Anderson, C. 2013. "The Networked Minority: How a Small Group Prevailed in a Local Windfarm Conflict." *Energy Policy* 58: 97–108.
- Barnett, J., K. Burningham, G. Walker, and N. Cass. 2012. "Imagined Publics and Engagement Around Renewable Energy Technologies in the UK." *Public Understanding of Science* 21 (1): 36–50.
- Barry, A. 2001. Political Machines: Governing a Technological Society. London: Athlone Press.
- Bell, D., T. Gray, and C. Haggett. 2005. "The 'Social Gap' in Wind Farm Siting Decisions: Explanations and Policy Responses." *Environmental Politics* 14 (4): 460–477.
- Bidwell, D. 2013. "The Role of Values in Public Beliefs and Attitudes Towards Commercial Wind Energy." *Energy Policy* 58: 189–199.
- Bolton, R., T. J. Foxon, and S. Hall. 2016. "Energy Transitions and Uncertainty: Creating Low Carbon Investment Opportunities in the UK Electricity Sector." Environment and Planning C: Government and Policy 34 (8): 1387–1403.
- Bristow, G., R. Cowell, and M. Munday. 2012. "Windfalls for Whom? The Evolving Notion of 'Community' in Community Benefit Provisions from Wind Farms." *Geoforum; Journal of Physical, Human, and Regional Geosciences* 43: 1108–1120.
- Buchanan, I. 2010. "Performativity." In A Dictionary of Critical Theory. Oxford: OUP. http://www.oxfordreference.com/view/10.1093/acref/9780199532919.001.0001/acref-9780199532919-e-519?rskey=GTWOMl&result=512
- Burchell, K. 2007. "Empiricist Selves and Contingent 'Others': the Performative Function of the Discourse of Scientists Working in Conditions of Controversy." Public Understanding of Science 16: 145–162.
- Callon, M. 1986. "Some Elements of a Sociology of Translation Domestication of the Scallops and the Fishermen of St. Brieuc Bay." In *Power, Action and Belief. A new Sociology of Knowledge?*, edited by J. Law, 57–78. Sociological Review Monograph 32.
- Callon, M. 2004. "Europe Wrestling with Technology." Economy and Society 33 (1): 121-134.
- Castree, N., R. Kitchin, and A. Rogers. 2013. "Performativity." In A Dictionary of Human Geography. Oxford: OUP. http://www.oxfordreference.com/view/10.1093/acref/9780199599868.001.0001/acref-9780199599868-e-1387?rskey=ovKITJ&result=1385
- Chandler, D., and R. Munday. 2011. "Performativity." In A Dictionary of Media and Communication. Oxford: OUP. http://www.oxfordreference.com/view/10.1093/acref/9780199568758.001.0001/acref-9780199568758-e-2005?rskey=meK84J&result=3002
- Cotton, M., and P. Devine-Wright. 2011. "Discourses of Energy Infrastructure Development: A Q-Method Study of Electricity Transmission Line Siting in the UK." *Environment and Planning A* 43 (4): 942–960.
- Cotton, M., and P. Devine-Wright. 2012. "Making Electricity Networks 'Visible': Industry Actor Representations of "Publics" and Public Engagement in Infrastructure Planning." *Public Understanding of Science* 21 (1): 17–35.
- Cowell, R. 2010. "Wind Power, Landscape and Strategic, Spatial Planning the Construction of 'Acceptable Locations' in Wales." *Land Use Policy* 27: 222–232.
- Devine-Wright, P. 2009. "Rethinking NIMBYism: The Role of Place Attachment and Place Identity in Explaining Place-Protective Action." *Journal of Community & Applied Social Psychology* 19: 426–441.
- Devine-Wright, P. 2011. "Place Attachment and Public Acceptance of Renewable Energy: A Tidal Energy Case Study." Journal of Environmental Psychology 31 (4): 336–343.
- Devine-Wright, P. 2012. Explaining "NIMBY" Objections to a Power Line: The Role of Personal, Place Attachment and Project-Related Factors. *Environment and Behavior*.
- Devine-Wright, P., and Y. Howes. 2010. "Disruption to Place Attachment and the Protection of Restorative Environments: A Wind Energy Case Study." *Journal of Environmental Psychology* 30 (3): 271–280.
- Firestone, J., and W. Kempton. 2007. "Public Opinion About Large Offshore Wind Power: Underlying Factors." *Energy Policy* 35 (3): 1584–1598.
- Firestone, J., W. Kempton, and A. Krueger. 2009. "Public Acceptance of Offshore Wind Power Projects in the USA." Wind Energy 12 (2): 183–202.
- Firestone, J., W. Kempton, and M. B. Lilley. 2012. "Public Acceptance of Offshore Wind Power Across Regions and Through Time." *Journal of Environmental Planning and Management* 4665 (June 2015): 1–43.
- Government Office for Science. 2008. Powering Our Lives: Sustainable Energy Management and the Built Environment. London: HMSO.
- Graham, J. B., J. R. Stephenson, and I. J. Smith. 2009. "Public Perceptions of Wind Energy Developments: Case Studies from New Zealand." *Energy Policy* 37 (9): 3348–3357.
- Gray, T., C. Haggett, and D. Bell. 2005. "Offshore Wind Farms and Commercial Fisheries in the UK: A Study in Stakeholder Consultation." Ethics, Place & Environment 8 (2): 127–140.
- Gregson, N., and G. Rose. 2000. "Taking Butler Elsewhere: Performativities, Spatialities and Subjectivities." *EPD: Society and Space* 18: 433–452.
- Gross, C. 2007. "Community Perspectives of Wind Energy in Australia: The Application of a Justice and Community Fairness Framework to Increase Social Acceptance." *Energy Policy* 35 (5): 2727–2736.



Haggett, C. 2008. "Over the Sea and Far Away? A Consideration of the Planning, Politics and Public Perception of Offshore Wind Farms." *Journal of Environmental Policy & Planning* 10 (3): 289–306.

Haggett, C. 2011. "Understanding Public Responses to Offshore Wind Power." Energy Policy 39 (2): 503-510.

Hall, N., P. Ashworth, and P. Devine-Wright. 2013. "Societal Acceptance of Wind Farms: Analysis of Four Common Themes Across Australian Case Studies." *Energy Policy* 58: 200–208.

HM Government. 2008. Planning Act. London: TSO.

Jay, S. 2008. At the Margins of Planning. Aldershot: Ashgate.

Jolivet, E., and E. Hieskanen. 2010. "Blowing Against the Wind – an Exploratory Application of Actor Network Theory to the Analysis of Local Controversies and Participation Processes in Wind Energy." *Energy Policy* 38: 6746–6754.

Jones, C. R., and J. R. Eiser. 2010. "Understanding 'Local' Opposition to Wind Development in the UK: How Big Is a Backyard?" Energy Policy 38 (6): 3106–3117.

Kermagoret, C., H. Levrel, and A. Carlier. 2014. "The Impact and Compensation of Offshore Wind Farm Development: Analysing the Institutional Discourse Form a French Case Study." Scottish Geographical Journal 130 (3): 188–206.

Ladenburg, J. 2016. "Acceptance of Wind Power: An Introduction to Drivers and Solutions." In *Alternative Energy and Shale Gas Encyclopedia*, edited by J. H. Lehr, J. Keeley, and T. B. Kingery, 1–9. Hoboken, NJ: John Wiley.

Ladenburg, J., and B. Möller. 2011. "Attitude and Acceptance of Offshore Wind Farms - The Influence of Travel Time and Wind Farm Attributes." *Renewable and Sustainable Energy Reviews* 15 (9): 4223–4235.

Lee, M., C. Armeni, J. d. Cendra, S. Chaytor, S. Lock, M. Maslin, C. Redgwell, and Y. Rydin. 2013. "Public Participation and Climate Change Infrastructure." *Journal of Environmental Law* 25 (1): 33–62.

Lo, K. 2014. "Urban Carbon Governance and the Transition Toward Low-Carbon Urbanism: Review of a Global Phenomenon." *Carbon Management* 5 (3): 269–283.

Loring, J. M. 2007. "Wind Energy Planning in England, Wales and Denmark: Factors Affecting Project Success." *Energy Policy* 35: 2648–2660.

Marres, N. 2007. "The Issues Deserve More Credit: Pragmatist Contributions to the Study of Public Involvement in Controversy." Social Studies of Science 37 (5): 759–780.

Mayhew, S. 2009. "Performativity." In *A Dictionary of Geography*. Oxford: OUP. http://www.oxfordreference.com/view/10. 1093/acref/9780199231805.001.0001/acref-9780199231805-e-3574?rskey=wZeUKE&result=1884

Metzger, J., L. Soneryd, and S. Linke. 2017. "The Legitimization of Concern: A Flexible Framework for Investigating the Enactment of Stakeholders in Environmental Planning and Governance Processes." *Environment and Planning A* 49 (1): 2517–2535.

Michael, M. 1996. Constructing Identities. London: Sage.

Permezel, M., and M. Duffy. 2007. "Negotiating the Geographies of Culture Difference in Local Communities: Two Examples from Suburban Melbourne." *Geographical Research* 45 (4): 358–375.

Pieraccini, M. 2015. "Rethinking Participation in Environmental Decision-Making: Epistemologies of Marine Conservation in South-East England." *Journal of Environmental Law*, 45–67. doi:10.1093/jel/equ035

PINS. (2012). Advice Note 1: Local Impact Reports. Bristol: PINS.

Platt, L. 2011. "Liverpool 08 and the Performativity of Identity." *Journal of Policy Research in Tourism, Leisure and Events* 3 (1): 31–43.

Ritchie, H., and G. Ellis. 2010. "A System that Works for the Sea'? Exploring Stakeholder Engagement in Marine Spatial Planning." *Journal of Environmental Planning and Management* 53 (6): 701–723.

Rudolph, D., C. Haggett, and M. Aitken. 2018. "Community Benefits From Offshore Renewables: the Relationship Between Different Understandings of Impact, Community and Benefit." *Environment and Planning C: Politics and Space* 36: 92–117. doi:10.1177/2399654417699206

Rutherford, J., and O. Coutard. 2014. "Urban Energy Transitions: Places, Processes and Politics of Socio-Technical Change." *Urban Studies* 51 (7): 1353–1377.

Rydin, Y., M. Lee, and S. J. Lock. 2015. "Public Engagement in Decision-Making on Major Wind Energy Projects." *Journal of Environmental Law* 27 (1): 139–150.

Star, S. L., and J. R. Griesemer. 1989. "Institutional Ecology, 'Translations' and Boundary Objects: Amateurs and Professionals in Berkeley's Museum of Vertebrate Zoology, 1907–39." Social Studies of Science 19: 387–420.

Swofford, J., and M. Slattery. 2010. "Public Attitudes of Wind Energy in Texas: Local Communities in Close Proximity to Wind Farms and Their Effect on Decision-Making." *Energy Policy* 38 (5): 2508–2519.

Toke, D., S. Breukers, and M. Wolsink. 2008. "Wind Power Deployment Outcomes: How Can We Account for the Differences." *Renewable and Sustainable Energy Reviews* 12: 1129–1147.

van der Horst, D. 2007. "NIMBY or Not? Exploring the Relevance of Location and the Politics of Voiced Opinions in Renewable Energy Siting Controversies." *Energy Policy* 35 (5): 2705–2714.

Waldo, Å. 2012. "Offshore Wind Power in Sweden-A Qualitative Analysis of Attitudes with Particular Focus on Opponents." Energy Policy 41: 692–702.

Walker, B. J. A., B. Wiersma, and E. Bailey. 2014. "Community Benefits, Framing and the Social Acceptance of Offshore Wind Farms: An Experimental Study in England." Energy Research and Social Science 3 (C): 46–54.

Westerberg, V., J. B. Jacobsen, and R. Lifran. 2015. "Offshore Wind Farms in Southern Europe – Determining Tourist Preference and Social Acceptance." Energy Research & Social Science 10: 165–179.



- Wiersma, B., and P. Devine-Wright. 2014. "Public Engagement with Offshore Renewable Energy: A Critical Review." Wiley Interdisciplinary Reviews: Climate Change 5 (4): 493–507.
- Wolsink, M. 2010. "Near-Shore Wind Power-Protected Seascapes, Environmentalists' Attitudes, and the Technocratic Planning Perspective." Land Use Policy 27 (2): 195–203.
- Woolley, O. 2010. "Trouble on the Horizon? Addressing Place-Based Values in Planning for Offshore Wind Energy." Journal of Environmental Law 22 (2): 223-250.