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Abstract

UK energy policy contains ambitious goals for increased deployment of renewable energy technologies (RETs) but concern remains about the potential of local opposition to obstruct proposed developments. Despite emerging academic consensus that characterising opposition to RET siting as NIMBYism is problematic, the discourse remains strong in popular debate. This paper responds to calls for sociological research on both ascriptions of NIMBYism and the use of deficit models. Through an analysis of interviews with key actors in the renewable energy industry we explore the ways in which a discourse of NIMBYism is evident in their descriptions of local wind farm opponents. We conceptualise this discourse as embodying an array of deficit models of the public and public knowledge. This is significant not only because developers' constructions of publics inform their modes of engagement with them, but also because they may influence public responses themselves.

Key words: NIMBY, deficit models, renewable energy technology, wind farms, siting disputes.

Introduction: NIMBY and deficit discourses

Within the context of concerns about climate change, UK energy policy contains ambitious goals for increasing the use of renewable energy and envisages the deployment of renewable energy technologies (RET) playing a key role in this. The UK

Renewable Energy Strategy includes a target of 15 percent of energy generated from renewables by 2020, with onshore wind envisaged as playing an important role in meeting this (DECC 2011). While the need for development of RETs is increasingly accepted at a policy level and surveys of public opinion are commonly taken to indicate high levels of support for renewable energy (McGowan & Sauter 2005 – although see Aiken 2010 for a critique of this assumption), concern remains about the potential of local opposition to obstruct siting. Supporters of such developments often characterise local opponents as NIMBYs (Not In My Backyard), with this epithet common within local planning disputes and widely drawn on both in the press (e.g. Murray, 2009; Toynbee 2007) and by politicians (The Guardian, 2009).

Research on local responses to technology siting has engaged with the concept of NIMBYism since the 1980s when the acronym emergedⁱ. Wolsink (2000:53) defines NIMBYs as ‘people that combine a positive attitude and resistance motivated by calculated personal costs and benefits’, however, many authors use the term without any clear definition, simply equating NIMBYism with local opposition. In everyday use, the term is a pejorative shorthand to denote irrational, selfish and obstructive individuals who fear change and stand in the way of essential developments. NIMBYs are considered parochial individuals who place the protection of their individual interests above the common good.

In recent years a body of work exploring the relevance of the concept for explaining opposition specifically to RETs has developed (Bell et al 2005 & 2013; Kempton et al 2005; Wolsink 2000 & 2012; Haggett 2010; Devine-Wright et al 2011; Van Der Horst 2007). In common with the wider literature there is an emerging consensus that

NIMBYism is an inaccurate and unhelpful way of characterising opposition to siting. Empirical research indicates that it proves difficult in practice to find individuals who are in favour of renewable energy but are motivated by calculated personal costs and benefits to oppose local siting (Wolsink 2000; Bell et al 2013). A raft of studies has sought to provide more sophisticated understandings of support and opposition to the siting of diverse RETs (see Devine-Wright ed 2011), indicating the significance of place attachment, (Devine-Wright 2005) symbolic interpretations of both the place and the technology (McLachlan 2010) and the range of political, social and environmental values (Kempton et al 2005) which inform stances of opposition and support. In addition the wider literature on land use disputes has long acknowledged the role that features of planning and decision making processes along with relationships between local people and those responsible for planning, building and managing developments have on the generation of oppositional stances (e.g. Kemp 1990; Irwin 1999). On the basis of such research Gibson argues:

For all these reasons it is time for progressive activists and critical sociologists to begin living without NIMBY (2005: 396)

However, while academic research increasingly rejects NIMBYism as an accurate or useful way of understanding opposition, it remains a powerful public discourse (see Wolsink 2012).

The development and trajectory of academic debates about NIMBYism shares some important characteristics with discussions of the use and prevalence of ‘deficit models’

(Wynne 1991) of the public within the literature on public understanding of science. Early work on public understanding of science viewed the public as essentially deficient in scientific knowledge and requiring scientific education (Irwin & Michael 2003). From this perspective fears or opposition to scientific or technological innovations could be explained simply in terms of public ignorance of the science and thus could be overcome with sufficient information or education (Sturgis & Allum 2004). This framing of public responses in terms of a deficit of knowledge has been systematically critiqued by ethnographic work which reveals that: 'public uptake (or not) of science is not based on intellectual capability as much as socio-institutional factors having to do with social access, trust and negotiation as opposed to imposed authority' (Wynne 1991:116) .

Clearly both the literature on NIMBYism and that on the public understanding of science are extensive and complex and drawing parallels between them inevitably oversimplifies the range of debate within each field as well as the commonalities between them. Some striking similarities are, however, apparent. Both NIMBY and public deficit models have been critiqued as problematic dominant discourses which construct the public as lacking correct knowledge (of science, risks or impact) objectivity and rationality and in need of education. Both encompass negative conceptualisations of the public, explanations of conflict and normative expectations of how conflict should be responded to. These views of the public are juxtaposed in both fields with more positive contextual models which depict the public as active citizens, having legitimate grounds for concern and opposition and which recognise the rationalities of different viewpoints, the expertise that can be held by ordinary people

and the social context in which environmental positions are formed (Devine-Wright et al 2011; Futrell 2003; Irwin & Michael, 2003; Kemp 1990; Law & McNeish 2007; Wynne 2001).

Finally, and significantly for us, there are parallel calls in both literatures for research which explores the use in practice of these discourses. Calls for research which focuses on the use of ascriptions of NIMBYism in general have been made for some time (e.g. Burningham, 2000; Gibson, 2002; Wexler, 1996) and more recently specifically in relation to RET siting, Bell et al indicate that it is ‘important to study the discursive use of ‘NIMBY’ in wind energy politics’ (2013:124). Similarly Wright and Nerlich (2006) conceptualise deficit models as ‘culturally available interpretative repertoires’ (p333) and argue that:

work is... required to discover how widespread the use of the deficit model actually is (ibid: 340)

Our research question responds to both these calls by asking whether and how a discourse of NIMBYism is evident in UK developers’ descriptions of local wind farm opponents. Thus rather than seeking to discover whether opponents are really NIMBYs or not, our objective is to contribute to literature which explores how the discourse of NIMBYism is enrolled within disputes about siting RETS and with what effects (Haggett & Smith 2004; Ellis et al 2006). We suggest that the discourse of NIMBYism can be conceptualised as embodying an array of deficit models of the public and public knowledge and that these notions of deficit are used by developers in various ways to undermine the legitimacy of public opposition to wind farms. While the observation that

developers routinely view opponents as deficient is not in itself novel (see Devine-Wright, 2007; Law & McNeish 2007, Wolsink 2012), systematic analyses of how exactly deficiencies are characterised and mobilised are rare.

Constructing publics and public knowledge

To date the bulk of the literature on disputes about renewable energy has focused on the views of objectors (Devine-Wright 2011 & Wolsink 2012 also note this trend). There is a need now to extend the scope of research to incorporate the views and discourses employed by other key actors. Some recent work has emphasised the importance of considering discourses employed by local project supporters as well opponents (e.g. McLachlan, 2010). Relatively little attention has been paid so far to the perspectives of developers and technology promoters (but see Barry et al 2008 & Wolsink & Breukers 2010). This is significant as public responses in particular sites are not developed in a vacuum but emerge through interaction with others who have an interest in RET development, particularly those advocating and promoting it. This more constructionist lens sees local responses as ‘emergent, negotiated and shifting’ (Futrell 2003:360) drawing attention to the social processes involved in the emergence of public support or opposition.

Research in various spheres has illustrated that the ways in which experts construct or imagine publics has implications for their patterns of engagement with them (e.g. Maranta et al; 2003, Stilgoe 2007; Burningham *et al* 2007). Barnett *et al* (2012) indicate that expectations of antagonistic public responses lead RET developers to prefer top-down processes of information provision with the result that local publics

often feel that their concerns have not been taken seriously thus fuelling their discontent. Thus constructions of the public and models of communication with them are often inextricable and mutually reinforcing (Maranta et al, 2003; Irwin & Michael, 2003).

Further, Wynne argues that negative constructions of the public may also inform public response to proposed developments. Using the example of public response to GMOs and to nuclear power, he suggests that sceptical public reactions should be understood as at least in part as responses to the ‘provocative representations’ (2001:467) of the public and public concern visible in scientific and policy discourse. Thus the construction of local publics as deficient by wind energy proponents may inform and sustain opposition to developments. In summary, understanding the models of the public and public concern constructed by ‘expert’ actors in renewable energy development is important because they may be expected to play a significant part in shaping public responses to proposed developments, both in terms of stimulating public outrage and through their implications for engagement practices.

Method

This paper reports on work undertaken as part of a larger project which aimed to provide an integrated framework for understanding public engagement with diverse RETs . A key focus was the models of the public, public concern and public engagement constructed and deployed by actors in renewable energy development, and the impacts upon public response and patterns of public acceptability of the practices associated with each model.

The data set for this analysis consists of 19 interviews undertaken in 2007-2008 with key actors in the renewable energy industryⁱⁱ who were involved with the process of siting RETs as developers, manufacturers, consultants and marketing and PR people. They were involved with at least one of the technologies of wind power, biomass energy, marine energy (tidal and wave) and solar energy. These 19 were drawn from a larger corpus of 42 interviews and were chosen as they exemplify roles that are integral to the implementation of RET. The justification for choosing these roles is clearer when contrasted with other categories of interviewee: finance, policy & regulators, NGOs and interest groups, and politicians.

A semi-structured interview schedule explored 4 areas: the likely growth trajectories of different renewable energy technologies; the influence of the public on RET development; public responses to, and understanding of, RET; and public engagement processes. Interviews aimed for in-depth, informal discussion allowing interviewees to focus on specific interests or views. Analysis for this paper considered how publics were constructed throughout the interviews, but largely concentrated on the section of the interview in which public responses to, and understanding of, RET were discussed. In this section questions were asked about whom respondents thought of as ‘the public’ as well as a range of questions around what they think the public understand about RETs (such as and why they have particular views. As is usual in semi-structured interviewing, the precise wording and order of questions varied, the aim being to facilitate and stimulate interviewees’ accounts. The interviews were recorded, transcribed in full and coded using MaxQDA software.

Although not all of the interviewees were directly involved in the siting of wind energy development (as opposed to other forms of technology), all without exception discussed this example when talking about opposition and support for RET projects. We focus here on constructions of opponents of wind projects, with a particular eye on the extent to which NIMBY characterisations are built up through the attribution of an array of deficits.

Analysis

Using the NIMBY label

While local opposition to proposed wind farms was a recurrent topic of discussion, participants rarely labelled this explicitly as NIMBYism. The scarce use of the term does not mean, however, that objectors were not characterised as NIMBYs. Rather interviewees were aware of some of the critiques of using this label :

members of the public say ‘you’re just calling us NIMBYs’. Now we would never do that... that’s their term coming from them. Because I would be very careful not to use insulting terms like that (Interview 7: Developer)

However, in broader discussion their constructions of local opponents often remained firmly within the NIMBY mould. The following quote illustrates this:

I think with regard to the term nimbyism... it can be used to typecast in a very, very negative way and to therefore devalue people's opinion and I think that's a bad thing to do, but equally I think that there are clear cases where people are objecting simply because it is right on their doorstep and they are quite happy for that development... to happen so long as it's another hundred miles down the road (Interview 19: Consultant)

Few interviewees drew on such a 'strict' definition of NIMBYism (a person who supports the technology in principle but opposes local siting for reasons of self interest (Wolsink 2006)) but self interest was often considered to be at the root of opposition. One interviewee discussed a meeting he was due to attend which he thought would be attended by 'some fairly well heeled middle class house owners' who perceive a proposed wind farm 'as being a threat to house values'. He went on:

They will throw at me all kinds of things from decimating bird populations to whether blades can fly off and you know, come through your roof or whatever but at the heart of it, that's the issue. (Interview 41: Marketing/PR)

Thus while explicit descriptions of opponents as NIMBYs were rare, opponents were still characterised in ways that resonate strongly with the NIMBY model. This was achieved largely through characterising opponents as deficient in a number of inter-related ways.

An array of deficits

The discourse of NIMBYism can be unpicked to reveal conceptualisations of project opponents as having deficits of: knowledge and understanding; rationality and legitimacy. While in practice these dimensions are often entwined, for clarity we outline them in turn below.

Deficits of correct knowledge

Freudenburg and Pastor (1992) suggest that early analyses of opposition to new developments often labelled opponents NIMBYs on the basis that their response was both ignorant and irrational. These two components are often related in accounts of opposition, but here we tease them apart examining first deficits of knowledge. If opponents are understood as ignorant, responses revolve around the provision of information to provide appropriate knowledge. This understanding of opposition employs the classic deficit model of public understanding in which the public are conceptualised as empty vessels which simply need to be filled with correct information in order to think as the experts do.

In our data, opponents were not so much characterised as having *insufficient* knowledge as having *incorrect* knowledge. Developers' tended to characterise opponents as having faulty knowledge rather than simply lacking information. This faulty knowledge was variously described as being based on myth, misinformation or misperception.

Developers were highly critical of the role played by the media in spreading false information or as Law and McNeish (2007) put it 'contagions of irrationalism':

I do think the media have a very strong role to play ... if you write any old letter about wind it'll get published and it doesn't matter how ludicrous or how often it's been said before. There are a lot of myths out there and they get reinforced and people will then take them as fact because they've been promulgated a number of times. (Interview 24: Manufacturers)

I think the internet has allowed information to circulate without it being peer reviewed or checked so rumour can go round or... just basically untruths ... about, ... bats or birds or whatever and it spreads and becomes authentic (Interview 3: Manufacturers)

In contrast, the sources of information drawn on by supporters of local wind farms received scant attention. This seems to be largely because support is seen self evidently the 'right' position, needing little explanation or attention. Wolsink (2012) suggests that from the view point of wind power developers, support is seen as the 'natural' position which needs no explanation, in contrast with the 'deviant' position of opposition. Supporters were variously depicted as understanding the threat of climate change, the role of renewables and the reality of wind farms, implicitly as having 'correct' knowledge and a commendable perspective.

Given that opponents' stance was generally considered to be based on faulty knowledge, it is not surprising that developers saw education as a key strategy in influencing support. Education was advocated both in general (to improve childrens' understanding in schools) and in relation to particular projects. The aim of education

varied from improving general scientific literacy, through informing people about the reality of climate change and the role of renewable energy, to explaining and demonstrating how wind farms work. The clear hope was that education would lead publics to think more rationally, like the developers:

I think all we'd really want is for people at large to understand the issues and the choices and then hopefully make an informed decision... if they had all that information available, then they might come to similar decisions, choices that we've come to (Interview 6: Developers)

Experience was seen by many to play a critical role in informing whether people supported or opposed a wind farm. Here too opponents were characterised as drawing on the 'wrong' experiences, while supporters drew on the right ones. For example, some interviewees conceded that people may have past experience of wind farms being inappropriately sited which they were drawing on, but they suggested strongly that such experience was no longer relevant:

one thing which is never ... properly recognised is there have been some big mistakes, there have been wind farms put up in places where they really shouldn't have been put and that doesn't help anyone and part of that is due to the old incentive schemes, the so called non-fossil fuel obligation which was frankly a disaster ... Now ... that system has long gone but there's definitely a legacy from it ... that's what ...got ... a lot of opposition groups going.(Interview 17: Consultants)

In the early days it was an issue because it was a learning process ... the Altamont Pass is a classic one in America where they sited... huge numbers of turbines... right in the middle of raptor hunting areas, of course they use the towers to perch and look for prey and concentrate on the prey and don't see the blade ... now knowing what you know, there's no way on earth you'd put that, but in the early days... So those things get thrown back at us time and time again.. the story's out there that wind farms kill birds - which they do if you site them badly - as long as you don't site them badly they don't any more.(Interview 40: Marketing/PR)

A different area of experience which was also regarded as possibly motivating opposition was experience of the shortcomings of micro-energy projects. Here too the suggestion is that this area of experience may be drawn on incorrectly to foster opposition to proposed wind farms:

If people get disappointed having installed a green turbine on their roof that it's not generating the kind of power that they thought it would... I think that ...could have a knock-on impact as to what people's perception is about large scale wind as well.(Interview 1: Developers)

While history of inappropriately sited wind farms and of ineffective micro projects was thought to inform opposition, experience of current wind farms was almost universally agreed to encourage support. There are two distinct dimensions to this: first, experience

is seen to some extent as education, providing information about how wind farms work and operate which will lead to more 'correct' views about them. For example visiting wind farms was often advocated as a way of proving to people that they are unproblematic and as one of the most useful ways of generating support

Whenever we take developments forward, we try and take people to wind farms because ... the best advocate for wind energy is a wind farm... if it's an issue about noise, people are very concerned about noise, and we take them to a wind farm and they invariably come back without any concerns.(Interview 40: Marketing/PR)

Secondly, experience in terms of regularly seeing wind farms was thought to change the way in which people perceived them, so that they came to be regarded as more familiar and less of a visual intrusion:

I think as more and more schemes are built ... people actually see that they aren't actually changing the landscape...they sit as ... just another component in the landscape. (Interview 20: Consultants)

Deficits of rationality and objectivity

Alongside deficits of knowledge, project opponents were often characterised as failing to see proposals in an objective or rational manner, with their responses being cast as irrational and emotive or subjective. While irrationality and subjectivity are distinct, we take them together in this section as they are closely entwined in participants' accounts.

Wind farm opposition is often characterised as being linked to strong emotions such as hatred, passion and fever (Cass & Walker 2009). The idea that opponents are in the grip of a fever resonates with descriptions of NIMBYism as a 'syndrome' which opponents suffer from (Dear 1992). Opponents are characterised as having their ability to think rationally and engage in constructive dialogue about project plans clouded by their emotions:

The person who supports a scheme is just a normal person supporting a scheme but the person who is against it is Mr Angry... yes, against it, passionately against it (Interview 40: Marketing/PR)

In some cases opponents were not only characterised as angry but also potentially violent and aggressive, thus further undermining the legitimacy of their position:

you come up against these people who ... wouldn't quite stab you in the back but you know, if they came across to you in a dark area they might give you a quick punch.(Interview 40: Marketing/PR)

Related to this characterisation of opponents as impeded by their emotions was the argument that the impacts of most concern to objectors were subjective rather than having a factual basis. In their analysis of stakeholder perspectives on wind power Wolsink & Breuekers (2010) argue that from the technocratic perspective employed by developers, the motives of opponents are deemed illegitimate because they are based on

emotion and values rather than ‘fact’ . In our data, developers indicated that the issue that usually received most attention in local disputes was the visual impact of wind farms (both in terms of individual turbines and the cumulative effect of numerous wind farms). Visual intrusion was regarded as subjective, not something which could be proved or disproved by scientific study and designed away. In some ways this made it hard to counter:

There’s no doubt that ... the key influences on coming up with an acceptable scheme are changing and I think the primary one that is starting to come up the agenda is the cumulative impact especially from landscape and visual perspective. There is no doubt that that is becoming more and more of an issue and the difficulty is of course it is such a subjective thing to decide that it gives huge opportunity for people to you know, come up with arguments as to why it’s unacceptable (Interview 20: Consultants)

I mean it is very difficult to judge landscape impact because again that’s an emotion although people try and make it into a science ... It’s a great science but I don’t understand it [laughs] or certainly you can make it say whatever you want it to say (Interview 22: Manufacturers)

The fact that visual intrusion is seen as a qualitative or subjective impact gives it a somewhat ambiguous character. On one hand, as the quotes above indicate, it renders claims about this impact difficult to challenge. On the other hand, its very characterisation as ‘subjective’ immediately relegates its significance within a

technocratic framework which values ‘facts’ above values. Of course within such debates facts and values are intertwined, and what is considered factual by one actor will be challenged as a matter of opinion by another. For developers the ‘need’ for increased deployment of RET to mitigate climate change was often the ‘fact’ used to trump what they considered to be subjective objections. This sense is conveyed well in the following extract where the interviewee initially aligns himself with concerns about visual impact:

it’s even something I ... think about the big hills behind where I live.... they have a very rugged wilderness look to them ... (I’m) pretty confident there will be some very large wind turbines up there in the not too distant future and I .. wonder ... what’s that going to be like? It’ll be a bit of a shame really but there’s a kind of bigger, there’s a bigger picture.(Interview 18: Consultants)

Arguably drawing alongside opponents to this extent provides a way of subtly underlining the implicit sense that opponents have few concrete grounds for their claims. While alternative symbolic representations of the environment and technology are acknowledged and opposition premised on this presented as understandable, it is ultimately minimised by the suggestion above that this is simply ‘a bit of a shame’ and something which needs to be seen within ‘the bigger picture’. This construction draws on a premise inherent to the NIMBY concept that facilities are needed to provide an important social benefit (see Wexler, 1996; Lake, 1993; Gibson, 2005) in the light of which any objections are ultimately of less importance.

Opposition was further undermined by the suggestion that any concerns raised about proposed wind farms (e.g. noise, visual intrusion, potential effects on avian populations, health effects, and ineffective energy generation) were disingenuous. Opponents expressions of concern about such issues were often considered symptomatic of a general resistance to change - an instrumental means of transforming diffuse discontent into concrete complaint - or as veiling less socially legitimate concerns about property prices:

I think probably a lot of the concerns that are raised ... will really boil ... down into ... some people just don't like the look of a wind farm and don't want it in their locality and ...that principle ... spins out into a lot of concerns over other things (Interview 1: Developer)

They always... seem to start from the stance that they don't want the wind farm there because it's a change and we live in this area and we don't want it changed.(Interview 40: marketing/PR)

Deficits of legitimacy

As Gibson (2005) notes, in popular usage NIMBY is a shorthand for any opposition which is regarded as invalid or illegitimate. The illegitimacy of opposition has already been hinted at in the preceding analysis. Here we unravel some further dimensions of the characterisation of project opponents as either deficient in terms of the legitimacy of their complaints or in their legitimacy as complainants.

At the heart of attributions of NIMBYism is the implication that project opponents are selfish, concerned only about their own ‘backyard’. Opposition based on such limited self-interest is conceived as less valid than that based on wider concerns (e.g. Keeney and von Winterfeldt 1986). As indicated earlier, suggestions that opponents are primarily motivated by concerns about their own property, while not common, do surface.

While interests are clearly at play on all sides in siting disputes (with the interests of the state and of developers being particularly notable, see Lake 1993; Wexler 1996), it is only opponents who are characterised as self-interested. Such self-interest is seen as of lower value than the higher interests of the ‘civic good’ (Gibson 2005) held by developers (‘you really believe you’re doing something good that’s beneficial to the world’ (Interview 40: Marketing/PR)). Such ‘selfishness’ is thus constructed as another form of incorrect knowledge, although here it is *politically* or ethically incorrect. This suggestion has also been evident in media and politicians’ critiques of wind farm opponents as when in 2009 David Miliband (the then UK Secretary of State for Climate Change) was quoted as indicating that opposition to wind farms should be seen as ‘socially unacceptable’ (The Guardian, 2009).

Such ‘backyard’ concerns were particularly associated with people who had recently moved into an area:

Those people have bought into this community; they've bought property cheaply and they don't want their lives to change. They want to fossilise it. (Interview 4: Developer)

I'm generalising but it tends to be those... who have come into these areas, retired whatever ... and perhaps they've moved there for reasons relating to the rural ideal and they don't want that spoilt as they may see it, by a wind farm or they've invested in it and see that their property is investment potential and see that that might be damaged and so forth. (Interview 41: marketing)

It was often implicit that newcomers' complaints lacked legitimacy. This in part was achieved by contrasting newcomers with the 'real' locals:

And then, of course, you have other people who've lived and worked in the area for a long, long time ...when I was actively involved in development, you could always tell, if someone came in and had a [local] accent, they'd probably give us an easy time, cos they were local and had been there for a long time. They saw changes. It was actually quite positive, quite interesting. People who'd worked on the land all their lives or something. They knew it's hard. They had no illusions about it. They'd say, 'Well, it's good something's happening here... Good on you!' (Interview 4: Developers)

The case for opposition is thus trivialised and deemed illegitimate by suggesting that it rests largely on the 'backyard' concerns of 'incomers'. It is further minimised by

suggesting that it is a minority position in contrast to the majority position of support for renewable energy.

if you do general attitude studies then you'll find that most people support renewable energy, most people are in favour of it .. so there is a real disconnect when you then get down to a local decision and that local decision comes into play more based I would suggest on emotion, on misinformation and, fundamentally, it's going to affect the price of my house.(Interview 22: Manufacturer)

All the public opinion surveys ... are proving similar sorts of statistics ... seventy to eighty percent of the public in the UK support wind energy and think a wind farm in their local environment wouldn't necessarily be the end of the world or find it a very positive thing and I think what we found with sites is that you do get that classic you know, really highly motivated, very vociferous minority, often these days very well funded. (Interview 1: Developer)

This discourse of what Bell et al (2005 & 2013) have called 'the social gap' (between general majority support for renewables and minority opposition to RET siting) succinctly characterises both supporters and opponents and was clearly a popular one. Supporters are a somewhat abstract general public 'out there' known only through statistics in contrast to opponents who are specific local publics known through experience to be problematic. The discourse of silent majority support for wind and vocal minority opposition emphasises the limited nature of opposition both in term of

sheer numbers and also in terms of the character of the response. In these accounts we see the objective rationality of research (surveys, statistics) counterpoised with emotional, misinformed and vociferous minority responses.

Conclusions

Research into renewable energy siting disputes should not be constrained to analyses of the perspectives, discourses and practices of local project opponents or supporters (important though this is) but needs to be expanded to include consideration of the discourse and activities of other renewable energy actors .

We have focused here on how developers construct opponents. This is significant because the characteristics of such ‘imagined publics’ (Maranta et al 2003) inform their modes of public engagement and may also inform and influence public responses themselves. Developers’ constructions of local publics are potentially significant in shaping how the dynamics of local responses evolve and how different actors react and strategically behave in relation to each other over both the short and longer term .

While outright ascriptions of NIMBYism were rare the discourse of NIMBYism saturates developers’ accounts and is particularly evident through the attribution of an array of deficits to opponents. In this it reinforces Wolsink’s (2012) assertion that NIMBYism is largely treated as a self evident truth. Developers speak of their hope that the deficits of understanding, information and experience they identify might be filled by education or the provision of appropriate ‘experience’, thus potentially transforming opponents into supporters. Here a clear public deficit model of understanding is evident,

the assumption being that given ‘facts’ or shown ‘the reality’, members of the public will think more like the experts. This impression is reinforced by the simple transmission view of information adopted in discussion of the role of media and internet sources. Here too the public are characterised as uncritical receptors of whatever information they are exposed to (Law & McNeish 2007). Not only has this view of the public received sustained sociological criticism, in practice there is limited empirical evidence for the efficacy of education campaigns in achieving behavioural change (Gardner and Stern, 2002; Halpern et al., 2004). This is not to say that information deficits do not exist, or that education – on all sides - cannot play an important role; the problem is when public concerns are understood as simply stemming from information deficits (Wynne 2006) .

Interestingly, the passivity implied in this model of information flow is somewhat at odds with descriptions elsewhere in the interviews of opponents as organised, active and strategic. While the classic view of a public deficient in knowledge, understanding and rationality is clearly evident in our data we suggest that developers’ conceptualisations of opposing publics are not adequately analysed as simply employing deficit models. Rather we draw attention to the ways in which opposing publics are seen to have a *presence* of problematic characteristics - incorrect knowledge, emotion, personal interest, subjectivity and so on. Thus rather than being the passive deficient public familiar from analyses of the public understanding of science, here the problematic public is an active one.

Our analysis reveals that key actors in the renewable energy industry distinguish between the *public in general* as bearers of valid supportive opinions (as evidenced by

the results of polls and surveys) and the public *in-situ* who are largely characterised as adopting problematic oppositional stances based on invalid grounds. Bell et al (2005) suggest that this discourse of ‘a social gap’ (between general support and local opposition) is more helpful than the NIMBY discourse which locates the problem at an individual level. In practice, however, the discourse of a social gap bolsters the characterisation of opponents as NIMBYs. It works to emphasise their minority status and highlights their irrational opposition by contrast with the backdrop of scientific evidence of general support.

Public concern about technology tends to be conventionally understood as being about risk with a distinction often made between the objective assessments of risk made by experts and the subjective perceptions of local publics. Wynne writes that despite a mass of research demolishing the objective risk/perceived risk characterisation this basic view of public concern remains powerful. He describes it as a ‘cultural syndrome...constitutive of habitual, unquestioned ways of thought and practice’ (2001:475) which informs experts’ constructions of public responses to technology. This ‘syndrome’ clearly informs developers’ constructions of the public and public responses to RET with a clear contrast being drawn between their own objective assessments of the need for and safety of the technology and local publics’ subjective rejections of local proposals. Where the case of developers’ constructions of public response to RET may differ from case studies of experts’ construction of public response to other technologies is in terms of the significance of risk. Our research indicates that in this field ‘the experts’ do not see public responses as informed so much by erroneous assessments of risk as by self interest. Where local publics raise concerns

about risks these are not only dismissed but more fundamentally seen as providing a cover for a more interested (selfish) rejection of the proposals.

We conclude that UK developers' constructions of local opposing publics are still heavily informed by the NIMBY model. Wynne (2001) illustrates how institutional representations of the public provoke alienation which can contribute significantly to opposition to particular technologies. Thus we might expect that constructing public responses as NIMBY may act to some extent as a self fulfilling prophecy, encouraging antagonistic responses (see also Wolsink 2012).

Finally, we should stress that our aim here is not to vilify developers or to romanticise project opponents (Lake 1993, Wexler 1996), but to contribute to an emerging literature which provides a more contextual and discursive analysis of how NIMBY discourses are used within planning disputes and with what effect.

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ⁱ See Burningham (2012) for a fuller discussion of this literature.

ⁱⁱ In 2007 122 onshore wind energy applications were submitted in the UK, and in 2008 the number was 149 (Bell et al 2013). The exact number of companies involved in the development of Renewable Energy Technologies at the time is unknown