The limitations of the NIMBY concept for understanding public engagement with renewable energy technologies: a literature review

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1. Introduction

In seeking to understand public engagement with renewable energy technologies (RET), one potentially relevant literature is that on public responses to (primarily opposition towards) the local siting of other technologies or institutions. This is sometimes referred to as the NIMBY (Not IN My Back Yard) literature, although not all authors use this term. Much of the literature which deals explicitly with the NIMBY syndrome originates from the US, and has been published since the late 1980s. NIMBY is used to describe opponents of new developments who recognise that a facility is needed but are opposed to its siting within their locality:

> In plain language...the motivation of residents who want to protect their turf. More formally, NIMBY refers to the protectionist attitudes of and oppositional tactics adopted by community groups facing an unwelcome development in their neighbourhood... residents usually concede that these 'noxious' facilities are necessary, but not near their homes, hence the term 'not in my back yard'. (Dear 1992:288)

Most of the studies concentrate either on the siting of social facilities (e.g. prisons, homes for the mentally ill) or waste incinerators[i]. Although the issues surrounding these sorts of facilities differ, much of the analysis is similar. Concern is evident in much of this literature about the ability of local protesters to hold up the siting of proposed developments, for instance, describing the US situation, Popper writes:

> No new free standing hazardous waste facility has been sited during the last five years. No new nuclear plant has been undertaken since 1978...No large metropolitan airport has been sited since...the early 1960s. The lack of locations for new prisons has caused such overcrowding in many existing jails that some cities... have had to release convicted criminals. (1987:9)

This paper is split into four sections. The first briefly considers NIMBY terminology and definitions before moving on in the second section to review work on siting disputes that seeks to identify individual motivations for opposition. It is here that uncritical assumptions of NIMBYism are most prevalent; however empirical work indicates the range of concerns and motives for opposition which cannot simply be labelled as NIMBYism. In the third section we look in more detail at examples of research critical of the concept of NIMBYism and consider social or structural explanations for local siting disputes. The final section introduces recent work which focuses specifically on public responses to RET and adopts a critical perspective to the assumption that NIMBYism is to blame for public opposition in this arena.

2. Terminology and definitions

The acronym *n(ot) i(n) m(y) b(ack) y(ard)* dates from 1980, is defined as American English, and was supposedly coined by Walter Rodgers of the American Nuclear Society (a pro-nuclear group) (see www.etymonline.com/index.php?term=**nimby**). Commentators note the popularity of the term:

> The remarkable thing about "nimby" is how rapidly it graduated from the status of acronym to acceptance as a full-fledged slang term. Already we have

> "nimbyism" and "nimbyness," and further embellishments along the lines of "proto-nimbyite" and "nimby-symp" will probably arrive shortly. The term is a natural crowd-pleaser (provided the crowd isn't very bright) and thus certain to prove irresistible to politicians and their speechwriters. www.word-detective.com

Wolsink (2000) provides a careful definition of NIMBYs as 'people that combine a positive attitude and resistance motivated by calculated personal costs and benefits' (53); however, even a cursory reading of the literature on opposition to siting reveals that many authors use the term without any clear definition, simply equating NIMBYism with local opposition. Many describe any local opposition as NIMBY regardless of what seems to motivate that opposition (i.e. NIMBY responses are regularly described as based on environmental or health concerns).

> 'The problem with the use of NIMBY is that rarely is it defined the same way by different researchers. In fact, it is sometime used as a catchall term to label the opposition – or worse, to imply that citizens have illegitimate or irrational selfish (or narrow) reasons for opposing facilities'(Hunter and Leyden 1995:602)

In a recent exchange with Wolsink, Hubbard (2006) defends this sloppy use of the term arguing that many sociological/geographical concepts are similarly 'fuzzy' and claims that he does 'not regard NIMBY as a pejorative term'. Maintaining the term to describe any position is problematic, however, as both the original definition of the term and its popular usage indicate that it is usually meant and understood to be pejorative. In popular usage NIMBYs are usually selfish and parochial individuals who place the protection of their individual interests above the common good.

There have been some recent moves, however, to recast the term in a more positive light. Anthony Jay's recent book 'Not in Our Backyard: How to run a protest campaign and save the neighbourhood' (2005) begins with a frontispiece entitled 'Proud to be a NIMBY' and redefines NIMBYs as:

> 'any citizen, who tries to defend their home and their neighbourhood from plans which would destroy the view, pollute the environment, overload the transport network, upset the ecosystem and knock £50,000 off the value of their house. When it comes to our own back yard, we are all nimbys, every nimby deserves respect for standing up to corporate and government giants' (2005:1)

Jay is not alone, a quick internet search on 'NIMBY and proud' yields multiple international hits (see van der Horst in press).

NIMBY is not the only acronym heard in planning disputes and seen in related research. Freudenberg and Pastor explain that:

> 'people who see the public reaction as being the heart of the problem will refer to the 'NIMBY syndrome'…by contrast analysts who see the facilities themselves as problematic will often refer to them as 'LULUs' – for 'Locally Unwanted Land Uses' (1992: 40)

The acronym LULU was coined in 1981 by Frank Popper (1981). While talking of LULUs has the advantage of suggesting that the problem lies with the land use, rather than with the local people (who are ignorant or selfish), it also suggests that local responses to proposed developments are consistent across and homogenous within localities - an assumption which sits uneasily with empirical work which highlights local divisions and disagreements about problem definition (see Burningham 2000).

Alongside NIMBY and LULU a variety of other terms have sprung up. People who explain opposition in terms of NIMBYism may also refer to: NIMTOOS (Not in My term of Office); CAVE people (Citizens against Virtually Everything) and BANANAs (Build Absolutely Nothing Anywhere Near Anyone). Those who see the problem as lying with particular technologies, and thus see public opposition more positively, may also talk of NIABY (Not in Anyone's backyard) or NOPE (Not on Planet Earth) movements. These acronyms broaden the basis for opposition and indicate that the motivation may be neither simply localised nor selfish. More recently references to YIMBYs (Yes in My Back Yard) have begun to appear, an entry in Wikipedia gives the following definition:

> YIMBY is an acronym for Yes In My Back Yard, in contrast and opposition to the NIMBY phenomenon. Informal YIMBY coalitions exist in San Francisco, Los Angeles, and elsewhere to provide community support for affordable housing or market-rate property development over the objections of NIMBY, BANANA and bureaucratic opponents. There is also a growing YIMBY movement to encourage the installation of clean energy sources, such as wind turbines, despite the opposition these generally face from NIMBY groups. (http://en.wikipedia.org/wiki/YIMBY)

Use of these acronyms is relatively recent. While disputes over land usage clearly have a long history, with past struggles sharing many features in common with contemporary arguments (see Meyer 1995 for some examples), it is unclear how opponents to developments were viewed in the past.

Similarly use of the term NIMBY seems to be fairly culturally specific, being used to describe opponents to developments in relatively rich communities and 'developed' countries but much less likely to be used of opponents in poorer communities or 'developing' countries. This may be because poor communities and 'developing' countries are keener to embrace the development of new infrastructure as a sign of investment and progress and thus opposition is less prevalent. It may also reflect a tendency of authors to characterise opposition from poorer sectors of society or in poorer societies as struggles for environmental justice rather than examples of selfish attempts to protect local interests. For instance, in his discussion of the environmental justice movement in the USA, Bullard blames the NIMBY actions of some relatively affluent white communities for the environmental problems suffered by poorer black communities. He argues that these white communities oppose developments in their locality and as a consequence siting shifts to poorer less powerful black communities. Of interest here is the way in which he labels the opposition of white communities as NIMBY (i.e. illegitimate and selfish) while he sees the opposition of black communities to the same proposals as an exciting and positive development (see also Foster 1993).

Whilst the dynamics Bullard identifies may well be at work, and there may be significant differences in the ways in which the problems are conceptualised and responded to between the two sorts of communities, to label one as NIMBY and the other not is essentially a value judgement that serves to legitimate one protest and undermine another.

We conclude that all of these acronyms are over-simplifications of complex responses to land use decisions. Their use obfuscates understanding of the contexts, processes and motivations at stake and threatens to exacerbate conflict and misunderstanding between the parties involved. Our position is that researchers should avoid using the use of such acronyms in favour of exploring how they are used by actors involved in such disputes, and with what consequences.

3. Individual explanations for opposition to siting proposals

This section provides a brief overview of explanations for opposition to siting which focus at the individual level, seeking to explain opposition in terms of the beliefs, attitudes, values, motives or interests held by individuals within the locality.

3.1 Ignorance and selfishness

Freudenberg and Pastor (1992) provide a useful review of the NIMBY literature and suggest that it can be characterised as falling into three distinct perspectives. The first is of NIMBY as an ignorant or irrational response. This perspective draws a clear distinction between the real risks or impacts associated with new developments, and the public's assessment of these risks. In this view the public are considered to be 'wrong' and thus the response of planners should either be to educate or simply to overrule them. Freudenberg and Pastor cite the work of DuPont to exemplify this approach. Writing about public opposition to nuclear power, DuPont talks of 'the irrational fears of the public' (1981a:14) and argues that public opposition should not sway developers because ‘the fear they feel is out of proportion to the actual risks...This is phobic thinking’ (1981b).

This perspective utilises a deficit model of public understanding in which the public are problematised as having too little or incorrect knowledge. This position has been roundly criticised by sociological studies (e.g. Wynne 1992, 1996, Irwin 1995, Petts 1997) which have demonstrated that far from being passive vessels which simply need to be filled with more or better information, members of the public are active in weighing up the usefulness and relevance of scientific information. These studies show that members of the public are able to assimilate even very complex scientific information if they can see the practical gains from doing so, and conversely may choose to ignore information if they do not trust those who are giving it or if they see no advantage to be gained from understanding it. Assumptions of public ignorance are also countered by empirical studies which reveal that active project opponents are often more knowledgeable about the proposals than are passive supporters. (Hieman 1990, Barnett et al 2004, Fischer 2000)

The second perspective on NIMBY identified by Freudenberg and Pastor is that it is a selfish response, based on limited self interest. Some researchers who equate NIMBY with selfishness assume that this means that such protest is less important than that based on wider social and environmental concerns (e.g. Keeney and von Winterfeldt 1986); others, however, note that actions taken in an individual's self interest are considered to be rational within free market systems and so can hardly be condemned. For instance, Brion addresses protest based on fear of property devaluation and writes:

> At stake is the value that the neighbours (of the new facility) enjoy from what most likely is not only the focus of their existence but also their principal economic asset, their residence. (1991:179)

In addition, studies of siting disputes have illustrated that opponents are not alone in seeking to defend their own interests; project proponents too have interests of their own, which as Freudenberg and Pastor state 'may mesh only imperfectly with the good of society as a whole' (op cit:43). If NIMBY responses are conceived as being motivated by selfishness, then the solutions considered appropriate rely on trade-offs or compensation – hence the frequent emphasis in renewable energy developments upon community trust funds devised to allay local costs and share financial benefits.

3.2 Beyond ignorance and selfishness

While opposition to proposed land uses is often crudely summarised as selfish or ignorant NIMBYism, empirical studies of the reasons people give for their opposition to proposed land uses tend to reveal a wide range of motivations and explanations for opposition which cannot be adequately characterised in this way. For instance, Kemp's (1990) studied local responses to UK Nirex Ltd's proposals for the disposal of low and intermediate level radioactive waste and found that objectors drew on a range of values and concerns as the bases for their complaints. Analysing survey data from citizens whose community was faced with a decision to site a hazardous waste incinerator, Hunter and Leyden (1995) find little evidence for concern about property values, but conclude instead that opposition is related primarily to lack of trust in government, fear of health consequences and other ideological or demographic factors:

> To a large extent the NIMBY label is grounded in rational choice theory, which assumes that human behaviour is based on self interest, narrowly conceived. While the rational actor paradigm continues to be a popular paradigm, it usefulness has been challenged. Indeed there is a vast array of empirical work suggesting that self interest may be only one factor that influences both public opinion and political behaviour. In addition to self interest, citizens have been found to be motivated by attitudes such as fairness, sympathy, commitment, citizen duty, morality and long standing ideological beliefs' (613)

Of particular relevance for our work are those papers which focus on understanding individual opposition to the siting of RET. Devine Wright (2005) provides a useful overview of empirical research on public perceptions of windfarms which indicates that complaints usually focus on visual, acoustic, socio-economic, environmental and technical aspects (this literature is examined in detail in Devine Wright (2006) so will not be explored here). Kempton et al (2005) analysed reasons underlying public support for and opposition to an offshore wind development off Cape Cod and found

that certain values and beliefs led to opposition. These included beliefs that the project was uneconomic, that it would not make a significant contribution to energy supply and would have negative environmental impacts. Analysis of concern about impact on ‘the view’ suggested that this concern is not only visual or aesthetic but ‘is more importantly a gloss for the value that the ocean is special and humans should not intrude on it’ (2005:146). Upreti (2004) explored conflict over biomass powerplant developments in the UK and found that opponents were concerned about perceived risks and ecological and landscape impacts associated with the plant while seeing few benefits for local people.

It might be argued that opponents of proposed land uses are likely to realise that couching complaints in terms which can be easily labelled as NIMBYism is likely to be counter productive and thus, when asked, will provide broader explanations for their position. Walsh et al's (1993) study of opposition to the siting of waste incinerators in the US demonstrates this well. Their research attempted to explain why protest in one area successfully quashed a planning application, while in another area it failed. They conclude that this difference in outcome can be partly explained by the way in which claims about impact were framed, particularly whether protesters managed to argue convincingly that their campaign was not NIMBYism but was based on wider concerns. They note that the unsuccessful activists:

> acknowledged in retrospect that they probably should have concentrated their early efforts on ridding themselves of the NIMBY tag by emphasising the importance of serious recycling and the proposed incinerator's negative consequences for those living further from the site. (1993:36)

Hieman (1990) makes a similar observation. He, too, concentrates on incinerator siting in the US and argues that participants recognise that in order to be successful they need to present their complaints as motivated by environmental and social considerations. He observes that:

> Community opponents when adopting this position (NIABY), have greatly strengthened their solidarity and ability to thwart siting proposals. (1990:360)

This should not, however, lead to the cynical assumption that opponents are ‘really ‘ NIMBYs who seek to mask this behind more laudable environmental or social concerns. First, it is unclear how the researcher is to determine informants’ ‘real’ motivations from those which they present. It seems that the only basis for such an ascription of ‘real’ motives is a common-sense assumption/conviction that opposition is NIMBYism regardless what opponents say. This is hardly a credible research position. Secondly, assuming that opponents are really NIMBYs may lead to their expressed concerns being ignored, a situation which is likely to fuel opposition. As Hunter and Leyden recommend:

> ‘developers and other industry proponents need to place more emphasis on addressing the concerns that citizens actually express, and less emphasis on the assumption that those who oppose their projects are part of a overarching NIMBY syndrome’(Hunter & Leyden 1995: 601)

4. Social/structural explanations for local opposition

In recent years studies of individual motivations for opposition have been complemented by research which tries to understand '*the broader system that creates such conflicts in the first place'* (Freudenberg & Pastor, 1992, page 39).

4.1 Features of decision making processes

One strand of research focuses on the effect of features of the processes for planning and making decisions about land use on public responses. For example, Kemp (1990) suggests that the production of NIMBY responses is largely a result of various features of the context in which local people participate in such disputes. His findings from a case study of local responses to UK Nirex Ltd's proposals for the disposal of low and intermediate level radioactive waste indicate that certain situations either provide or require standard forms of response. He argues that 'structural, institutional and contextual factors contribute to the employment of particular forms of reasoning'(p1247), and suggests that two factors may have been particularly important in this particular situation in generating responses which could be characterised as NIMBY. First, Nirex's perceived past record of secretiveness, unfairness and incomprehensibility had led to a lack of legitimation for the participation process. Consequently people might have chosen not to participate, or if they did participate their primary concern may have been to express their distrust. Without a consideration of this background, responses may be seen as irrational, confrontational and protectionist. Secondly, Kemp argues that the form of the discussion document itself was likely to lead to site-specific protests. It showed a map of the areas geologically suitable for the location of repositories for radioactive waste, and so, not surprisingly, responses came mainly from the areas identified as potentially suitable. Thus what set out to be a generic exercise turned out to be site specific; a framework was created for the discussion which greatly influenced the nature of the response. Kemp concludes that the production of NIMBY concerns is largely a result of various features of the context in which local people participate in such disputes.

Others too have suggested that the form of the decision making process, with its intrinsic mechanisms of public engagement, may encourage responses which can easily be characterised as NIMBY. For instance Irwin et al (1999) draw attention to the effect that the decision making process in the UK has on forms and expressions of opposition. They argue that citizen groups are almost obliged to adopt a reactive or obstructive stance in public campaigns about environmental issues as there is typically little opportunity for public engagement prior to implementation. In addition, as Burningham and O'Brien (1994) note, the restrictions of the UK Public Inquiry process leads to particular kinds of issue and concern being raised during the Inquiry. It is often only by drawing attention to specific local and often personal impacts that objectors stand to win any victories at all. We note a potential dilemma for project opponents who wish to avoid being characterised as NIMBYs (see p9) but also realise that appealing to their own economic interests may be a successful oppositional strategy.

4.2 The contextual generation of NIMBY responses

Kemp's study (*op cit*) highlights the ways in which features of the decision making process may lead to the production of responses which fit the NIMBY caricature. This

insight is further developed in Futrell's (2003) examination of local protest over US army plans to incinerate chemical weapons in Madison County, Kentucky. He adopts a social constructionist perspective, focusing upon the dynamics of emergence, continuity and change in framing strategies over time. Rather than focusing on 'NIMBY attitudes' that are assumed to be inherent within individuals, his analysis focuses on the social construction of NIMBY *claims*:

> Considered in this way, NIMBY protest is an outcome of potentially complex, collective framing processes. The framing perspective helps to highlight the emergent , negotiated and shifting character of NIMBY claims and their relationship to the social context in which they are made' (p360)

One of the key contributions made by this study is its demonstration of the way in which local people's claims may shift in the course of the dispute, and how this process is influenced both by interactions with developers and by the 'solutions' proposed by powerful actors. Futrell describes how locals initially sought information about the proposals, questioning rather than opposing. More oppositional and explicitly NIMBY responses 'emerged as a reasoned cautionary response to the project only after citizens failed to receive answers to their queries about the plan…' (p360). The idea of moving the weapons out of their 'backyard'; and to another site for destruction was not initially part of citizens' claims, indeed this 'solution' was originally mooted by the army and only then did local people begin to campaign actively for it. This NIMBY response, however, was itself to shift when the army later indicated that transportation of the weapons would no longer be considered unless new technological evidence emerged. This led to activists dropping NIMBY arguments for 'a more globalising proactive framing of the issue' facilitated by the development of links with the national anti-toxics network, who provided the expertise, data and rhetoric for advancing arguments for alternative solutions.

This study provides a clear example of the way in which problem framing is informed by available 'solutions'. Spector and Kitsuse (1977) argue that contrary to the common-sense notion that solutions are developed once problems are apparent, the reverse is true: solutions produce problems by providing the framework within which those problems can be stated. They argue that the belief that something could be done about a condition is a prerequisite to it becoming a social problem (see Burningham 1998). Futrell notes here that:

> 'In framing terms both the diagnoses and prognoses are required... Diagnoses without proposed remedies hold less inducement for sustained collective action. People need a direction in which to 'move'.(p370)

Thus rather than seeing NIMBY responses as evidence of individuals simply being motivated to maximise their interests, NIMBY claims are viewed as contextually generated. This analysis challenges assumptions about the 'automatic, reactive character of NIMBYism' and suggests that 'NIMBY positions are not as intractable as some have presumed' (274). This approach leads us away from seeking individual level explanations for opposition to siting in favour of exploring the circumstances in which alternative problem framings might emerge.

4.3 Land use conflicts as symptomatic of deeper social conflicts

In contrast to Futrells' social constructionist approach, Lake (1993) and Wexler (1996) adopt neo-Marxist approaches in their critiques of the characterisation of local opposition as NIMBYism. Rather than providing empirical analysis of actual disputes their focus is upon the common assumption that siting disputes can be adequately explained as NIMBYism, challenging both the assumptions inherent in the concept and drawing attention to possible underlying causes of siting disputes.

4.3.1 Questioning assumptions of societal benefit vs local interest

Uisng the example of incinerator siting, Lake questions the premise inherent to the NIMBY concept that facilities are need to needed to provide societal benefits:

> Rather than necessarily and inherently fulfilling a societal need, Lulus represent a particular solution to a problem. Siting hazardous waste incinerators, for example, constitutes a locational solution to an industrial production problem (hazardous waste generation). But the incinerator siting solution is only one of a number of possible strategies for hazardous waste management. The facility siting strategy concentrates costs on local communities, as compared to the alternative strategy of restructuring production so as to produce less waste (Lake 1993: 88)

Wexler's (1996) also questions the assumptions inherent in the NIMBY concept, particularly the assumption of 'higher rational national Interests' and lower, irrational local interests and argues that 'the NIMBY perspective imposes a very simple, status quo oriented, centre-periphery perspective upon a complex issue'. (p95). Characterising siting disputes as examples of NIMBYism suggests that the only issue at stake is about location and marginalises questions about 'alternative or substitute means of providing the outcomes sought in the LULU'.(p 95).

This analysis initially seems hard to apply to RET as the societal benefit of RET is seemingly incontrovertible and widely accepted. However if we focus upon the example of the siting of large scale technologies in particular localities, this analysis does provide some useful insights. The demand for large scale investment in RET can be seen as part of a response to what Lake calls 'an industrial production problem', namely the threat of the scarcity (and expense) of existing energy resources. Thus the drive to provide alternative sources of energy might be viewed as part of a desire to ensure industrial 'business as usual'. The building of new facilities is only one (or only a part of) strategies for more efficient energy use, as energy savings could also be made by adopting energy conservation measures. Energy conservation measures however may challenge industrial profits and even the existence of particular industries.

The limitation of this analysis, particularly for the example of RET, is that it focuses only on production and has nothing to say about patterns of consumption and shared responsibility for the costs of production. Consumers' choices play a part in sustaining patterns of industrial production and in addition decisions in the home also have implications in term of environmental issues such as energy use.

Wexler is not only critical of the assumption that the interest of developers and industry equate with 'the national good' (he argues that there should be debate about

who is seeing the bigger picture/taking the long term view rather than assuming that it is developers/Government who are doing this) but also questions the assumption that siting disputes pit the centre (higher interests/national interests) against the periphery (locals, parochial interests). His first objection is to simplistic spatial notions of 'backyard', noting the assumption that:

> 'backyards are small and that they 'belong' to the local community (while)…the central or higher interests, those equated in the conventional NIMBY perspective with the public good, seemingly do not have a turf or backyard to protect. This, in a nutshell , is why the centre is not biased or preoccupied with its own self interest. But this is wrong.(1996:96)

This is wrong not only because the idea of NIMBYism can be applied to whole countries or trading blocs who want to avoid the negative impacts of polluting industry (backyards are not always small), but also because it assumes that there is only one 'centre'. Rather than seeing siting disputes as centre vs. periphery he suggests they are better viewed as 'a multiple centre problem, each centre having about it or acting as an agent for many local communities…strategic behaviour is no longer reserved for local communities' (p97). He draws attention here to the way in which disputes are often between 'loosely coupled coalitions that alter and dissolve during the working through of a NIMBY episode' (p97). This is clearly the case in conflicts over RET siting where opposition may come not only from local people but also from NGOs, other affected communities and visitors to the area.

4.3.2 Interests on all sides: place vs profit

Lake's analysis suggests an alternative way of understanding disputes about LULUs. He suggests that if 'rather than representing inherent societal need, LULUs constitute structurally constrained political solutions to economic problems that privilege the needs of capital' then it follows 'that rather than reflecting conflict between community and society, local opposition to LULUs expresses conflict between community and capital, and between community and the state'(1993:88).

He argues that disputes often revolve around developers' interests in maximising the profit associated with land development while local people resist changes to their existing environment. Characterising siting disputes as simply caused by NIMBYism serves to mask these underlying concerns. Lake argues that characterising local resistance as NIMBY:

> places the onus for policy failure entirely on selfish local communities, obfuscates the interests of capital, and deflects attention away from the fundamental causes of societal problems (p 88)

and notes that:

> it is far easier, politically, for the state to criticise NIMBY as irrational rather than to try to ameliorate problems at their source (p 90)

Lake sees local resistance to developments as partly economic (protecting property prices) but stresses that it is also 'non-economic, involving protection of aesthetic values, social status, the sanctity of the home, and the coherence of community'[ii] . Both authors, however, caution against 'romanticising' the community perspective, an approach which can easily follow from analyses which focus on the social bases for locational conflict:

> Contrary to the conventional assumption, I have argued that the local community perspective is not necessarily opposed to the societal good – nor is it necessarily synonymous with it (Lake 1993: 91-92)

Wexler's conclusion is that there is a need for more research which focuses on ascriptions of NIMBYism and their consequences:

> 'What I believe is called for, is the sociological examination of the moves in public argumentation made by the varying participants to a NIMBY episode. It is important in this call to sociologists to emphasise the need for an international and comparative account of NIMBY rhetoric' (p101)

5 Critical perspectives on the assumption that NIMBYism is to blame for public opposition to RET siting

This section looks specifically at literature which has explored the relevance and limitations of the NIMBY concept for explaining public responses to RET. It draws on a number of the arguments raised earlier but makes them applicable to the example of RET. The majority of the research so far has dealt with opposition to wind farms. Research on public opposition to other land uses can be fairly easily applied to the siting of wind farms (given that they are relatively large scale developments which require planning processes similar to those for other kinds of devts) but may be less applicable to the development of other RETS (e.g. smaller scale, less obvious technology (i.e. biomass etc), technology incorporated onto existing buildings (i.e. solar))

The NIMBY concept is an appealing way of explaining opposition to wind farms given the high levels of general public support revealed by opinion polls (e.g.) and evidence of local opposition to the siting of specific turbines. In addition whereas environmentalists have often criticised land uses that cause pollution and/or destroy countryside, leading to an acceptance that it is wrong to categorise opponents of such land uses simply as NIMBYs, in the case of RET the environmental case *for* the technology seems so strong that it is tempting to see opponents as problematic NIMBYs. It should be apparent, however, that all of the arguments rehearsed above can be applied to the case of the siting of RET; even if local concerns revolve around financial impacts (decrease in house prices; fall in tourist revenues) these should not be ignored as selfish or unreasonable complaints. Reasons for local opposition are varied (see Devine Wright 2006) and cannot simply be characterised as ignorant or irrational; the planning and decision making context may generate particular kinds of responses and so on.

Wolsink has written extensively about the inadequacy of the NIMBY concept for explaining public opposition to wind farms. Using a straightforward definition of NIMBY as someone in favour of wind energy application but opposed to local siting he argues that empirical research finds few people in this category:

> when we try to locate people that combine a positive attitude and resistance motivated by calculated personal costs and benefits we can hardly find them (2000: 53)

Drawing on interviews conducted with local people in the Netherlands before and after building turbines he found that only 25% clearly looked at costs and benefits of wind turbines in terms of individual utility. More than half tended to put more weight on the public interests and interests of others than on individual costs and benefits. Thus he concludes that 'The syndrome really exists but its significance remains very limited'.(2000: 55)

Wolsink's research highlights the key role played by institutional arrangements within the policy domains of physical planning and energy with regard to the success or otherwise of wind power initiatives. He also touches on the way in which features of the decision making process may lead to both the expression of NIMBY type response and the failure to site wind farms (echoing Futrell's analysis – see 4.2). He draws attention particularly to 'top–down' policy style, misplaced assumptions of broad public support and limited opportunities for local views to be heard:

> Mostly projects are planned first and third party acceptance requested later, according to the *decide-announce-defend model*. This practice tends to offend other parties and turns out to be destructive for achieving wind-power capacity (2000:62)

Wolsink's overall conclusion is that, as in other environmental relevant policy domains, Institutional constraints are more important in shaping outcomes than public acceptance. He recommends that:

> Policy actors and wind power developers should direct themselves towards building up institutional capacity to wind power and other renewable resources, instead of complaining about public attitudes (63)

The work of Bell, et al (2005) also focuses on wind power and begins by asking why, if approximately 80% of UK public support wind energy, is only a quarter of contracted wind power capacity actually commissioned? Rather than seeking to explain this in terms of individual attitudes (support for the technology in general but opposition in practice to particular local siting of turbines) they focus on what they call the *social gap* which is apparent between high levels of public support for wind energy expressed in surveys and low success rate in planning applications.

> '*our primary interest is in the social gap - as we know it exists and…needs to be bridged if the potential contribution of wind power to government energy targets is to be realised*'(461)

The paper examines three distinct explanations for the social gap and considers the implications of each for policy. Their first explanation suggests that it is features of the decision making process that result in the observable social gap between public support and local opposition. They posit that there is a democratic deficit in that while the majority support wind power, decisions about particular developments may be controlled by the minority who oppose wind power. From this perspective there may be no-one who fits the category of NIMBY, supporting wind power in general but opposing a local development! It is possible that opponents dominate the process as people rarely come forward with positive responses to planner's agendas. Hunter and Leyden suggest that 'Perhaps those with an economic incentive or a concern with aesthetics are more likely to make their opposition known in traditional forums, like hearings.' (1995: p612) In decide-announce-defend decision making, the public role is to provide criticism not support. In line with research seeking to understand opposition to other land uses, Bell et all suggest that if their diagnosis is correct then the appropriate policy response is to:

> 'Change the underlying character of the planning process from confrontation to collaboration' (467)

By shifting the emphasis from competitive interest bargaining to consensus building, passive supporters may be encouraged to get involved in decision making about local developments.

The second potential explanation that Bell et al put forward for the social gap is that of qualified support for wind energy – most people who support it do so with qualification and surveys fail to pick this up. Questionnaires are often structured to constrain the range of possible responses and may not enable respondents to express ambivalence or explain the contexts in which they might support or oppose developments . In addition Wynne (2006) cautions against assuming that lack of explicit concern or opposition towards a technology indicates support. Thus survey research may over estimate public support for RET and as a consequence construct a gap between generalised support and local opposition where one does not exist (see Ellis 2006).

An appropriate policy response to qualified support might be to provide information so that qualifications are reduced or modified. Bell et al are clear that trying to educate people or to change their values is likely to be counter-productive but argue that can be evaluated and used in assessments of the proposed development. An alternative response would involve taking the qualifications seriously and seeking to site wind farms in places people find more acceptable. This strategy would involve change at all levels. Bell et al's suggestions are for: developers working with local communities to find acceptable sites; national policy guidelines that limit development in certain areas (like AONBS) and reconsideration of energy policy and the energy system in general which has encouraged large scale wind developments in high wind areas (which are often sensitive landscapes).

Bell et al's final explanation for the social gap is the NIMBY explanation; people support wind energy in general but actively oppose any local developments for self-interested reasons. The NIMBY explanation of the social gap is the only one that depends on an individual gap between attitudes to wind power in general and

attitudes to a particular development. The explanation is that significant numbers of people suffering from an individual attitude gap cause the social gap. Bell et al conclude that the significance of this explanation seems to be limited as the prevalence of the NIMBY syndrome is disputed (see Wolsink) and there is little empirical support for the idea that people adhere to rational choice models of narrowly self interested actors.

If, however, this explanation is seen to be convincing there are a range of policy responses. As noted earlier if the public response is understood as ignorant or selfish NIMBYism then an appropriate policy response might be to ignore and overrule that opposition. Experiments with this approach (e.g. the Netherlands NIMBY bill, see Wolsink 1994) suggest, however, that such authoritarian 'solutions' may be more likely to exacerbate than solve the problem. Another response if opposition is believed to be motivated by self interest is to respond directly to that and ensure that the development of wind farms delivers personal benefits through financial compensation or community shares. However, Bell et al advise caution with this strategy:

> 'Before policy makers choose to adopt a financial incentive strategy they need to be sure that they are dealing with NIMBYs or people whose principles are for sale. In addition they need to have good grounds for believing that they can afford to pay the asking price'

Bell et al's paper is useful in proposing an alternative framework for understanding public opposition to wind farms which goes beyond problematising people as inconsistent NIMBYs. In particular it emphasises the importance of public participation in decision making. The focus, however, is still on overcoming opposition and so we might question how far this approach really is from earlier research which sought to 'understand and overcome the NIMBY syndrome' (Dear 1992)

6. Conclusions: Some conceptual and practical implications for our project

There are some clear common themes which run throughout this review and provide suggestions for the direction of future work in our project. These are:

- As researchers we should avoid attributing NIMBYism – '*We have three reasons for not using this term…it is generally used as a pejorative…it may not be accurate…this label leaves the cause of the opposition unexplained*' (Kempton et al 2005 124-5). We may wish to use the term 'social gap' as a convenient shorthand for the discrepancy between apparent general public support and localised opposition.

- An important focus of our research should be on how, and with what consequences, the concept of NIMBYism is used.

- It is important to remember that there are many diverse interests at play in siting disputes. There are good research arguments for adopting a neutral

stance towards the claims made by all parties. We should avoid vilifying or romanticising any of the actors involved.

- To date most of the rsearch has focused on understanding opposition to siting proposals and this is particularly true with the case of RET. In seeking to move beyond NIMBY conceptualisations of the situation it is important that we explore reasons for support as well as reasons for opposition to RET

- The importance of public participation in decision-making stands out as common thread (this is explored in greater detail in Cass 2006). We should be wary, however, of assuming that more inclusive forms of decision making will necessarily overcome or resolve conflict (or that this is necessarily desitable in itself; opposition may be important for good decision making (Owens & Cowell 2002).

- It is important to recognise that a commitment to ensuring decision-making is as transparent, well informed and equal as possible will not necessarily ensure easier siting of RET but may empower project opponents (see Gray et al 2005).

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[i] The agency responsible for the disposal of low-level radioactive waste in the UK

[ii] There are clear parallels here with social/environmental psychological work which explains local resistance in terms of place identity and attachment – see 1.3