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Common concerns about wind power (2nd edn)

Chapter 8 **Public acceptance and community engagement**

This is one of a series of chapters of evidence-based analysis drawing on peer-reviewed academic research and publicly funded studies.

For other chapters, see
www.cse.org.uk/concerns-wind-power-2017

Centre for Sustainable Energy, June 2017





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Chapter 8 Public acceptance and community engagement

The first edition of Common Concerns about Wind Power was published in 2011 to provide factual information about wind energy, in part to counter the many myths and misconceptions surrounding this technology.

Since 2011, much has changed in the legal and economic sphere, and a second edition became necessary. Research has been carried out for this edition since 2014. Therefore, this edition is formatted as a series of individual chapters available for download at www.cse.org.uk/concerns-wind-power-2017

All chapters written and researched by Iain Cox.

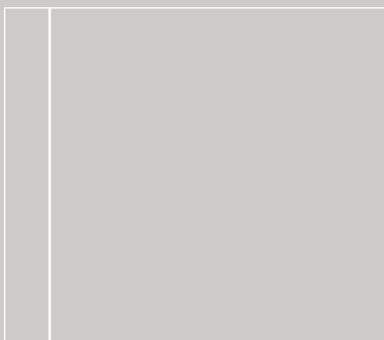
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We share our knowledge and practical experience to empower people to change the way they think and act about energy.

We are based in Bristol although most of our work has relevance and impact across the UK. Our clients and funders include national, regional and local government agencies, energy companies and charitable sources.



Chapter 8

Public acceptance and community engagement

Summary

Attitudes toward wind power are fundamentally different from attitudes toward wind farms, a divergence that has created what is sometimes called the 'social gap'. Despite the broad public support for renewable energy (wind included), the development of wind farm projects is often met with stiff opposition at a local level. Although some opposition is based on misconceptions about wind power in general, local resistance to wind farms is a complex interconnection between a position of acting 'for the greater good' and negativity toward what can be seen as an unwelcome imposition on the visual landscape to which residents have a strong emotional attachment.

The pejorative term 'nimby' (from 'not in my back yard') has regularly been levelled at residents when negative opinions about planned wind farms have been raised. This term is inaccurate, unfair and has no explanatory value, serving only to increase antagonism if it achieves anything at all. Understanding the issues involved, namely what lies behind the concerns and preconceptions of residents, is crucial if a community is to accept and even welcome the installation of a wind farm nearby.

What is this based on?

The UK government has committed itself to a long-term plan to restructure the nation's energy economy to be low-carbon, sustainable and more secure.¹ An unprecedented level of renewable energy introduced into the UK's energy infrastructure will have profound effects on the social and geographical matrix of the country, with direct effects on residents across many localities.² A key contributing factor to the relatively slow uptake of renewable energy in the UK has been the failure of projects to gain planning permission in a streamlined and timely manner.¹ Although wind has frequently been seen as the main focus of public opprobrium, projects in Europe and North America involving geothermal, tidal energy and biomass have also met with opposition.^{3,4}

Even though public opinion is generally in favour of renewable energy, including wind power, local resistance to renewable energy projects is not uncommon, and this is reflected in the high proportion of failed planning applications for wind turbines across the UK.^{3,5}

There is no simple explanation for this apparent contradiction between the high level of support for wind energy nationally and low approval rate for wind power projects locally, which has been described as the 'social gap'.⁶ This phenomenon is rooted in the complex mix of views, values and emotions held by people within a community that relate to procedural justice, distributive fairness and a sense of place; and in the tensions that

inevitably arise when national, long-term policies driven by central government come into conflict with the locally relevant objectives of affected residents.⁷⁻⁹ Despite this, there is compelling evidence that most residents who come into contact with wind turbines on a regular basis do not find their presence objectionable.¹⁰ Provided the benefits to both the community and wider society are properly explained and taken on board, most people display a surprisingly unselfish view of the need for such installations and close correlation is found between local community perspectives on wind farm developments and public support for clean energy as a whole.^{5,7} It is a salient fact that renewable energy, of which wind power is the most prominent and familiar technology, is routinely viewed as desirable by the public, and is far more acceptable than nuclear power even when framed in terms of nuclear's low-carbon attributes.¹¹

A hallmark of modern democratic society is the engagement of its citizens in all aspects of society planning, and the ethos of public participation has become the cornerstone of environmental planning in particular.¹² Ensuring a collaborative process throughout any renewable energy project is important to improve the quality and durability of any decision reached.^{7,10,13} Engaging residents within an affected locality with any renewable energy project reaffirms the democratic process, allowing citizens to participate in decisions that affect them on a personal, community and society level.¹⁴ It also fosters collective learning, increasing the awareness, acceptance and furthering the advocacy of renewable energy in both local and national settings.^{2,13}

What is the evidence?

The need for public participation

Wind power is going to be instrumental in the UK achieving its renewable targets for 2020.¹⁵ In the UK, however, deployment of renewable energy technologies, wind power especially, has never enjoyed the kind of widespread activism and grassroots support seen in other European countries.^{3,16} In addition, forms of local ownership and municipal leadership that are common to many nations, particularly the Germanic and Scandinavian regions that lead the way in renewables deployment, have historically never played a part in national energy planning in the UK.^{17,18} Recent policy changes by the UK government that have ended subsidies for onshore wind and solar photovoltaic (PV) power, introduced new planning requirements that require pre-allocated sites for wind development, and opened an ongoing consultation on reducing feed-in tariff rates for renewables, also present major obstacles.^{19–22} These decisions have caused great consternation within environmental groups and the renewable energy industry,²³ with warnings that investor confidence in UK renewable technologies is ‘being shattered.’²⁴

One of the key factors identified as necessary for the UK to meet its renewable energy targets is the support of local communities; conversely, failure of renewable energy projects to achieve planning permission in a streamlined and timely manner is identified as one of the major obstacles.^{3–5} The problem lies not just with objections to wind power, although the highly visible nature of wind turbines and its commercial readiness means wind power historically has generated most of the headlines and provided material for a great deal of academic research on the matter of public opposition.⁹ Although there remains broad public support for renewable energy projects, uncertainty over viability, sustainability, procedural justice, provision of benefits, and local environmental impacts means that renewable energy projects are frequently opposed by local residents during planning and development.^{2,25–27} It is important to note that, contrary to initial assumptions by the industry, renewable technologies located offshore are also subject to opposition by local communities.^{8,28}

The long-term, diffuse and uncertain nature of climate change impacts can also play a role, where one group of stakeholders may perceive the risks and urgency of action to mitigate emissions differently from another group.²⁹ There is a danger that local resistance is dismissed as simply the public being unaware of the risks associated with climate change, but this is typically not true.³⁰ This can be thought of as a form of the ‘information deficit’ model, whereby public opposition to wind farms and similar developments is underpinned

by ignorance of the ‘real’ or ‘correct’ facts.^{10,30} This model has long been considered deficient as a means of explaining social conflicts relating to scientific issues.³¹ The fact that this model lives on in the ethos of many institutions, both political, scientific and technological, is problematic.³² This can be seen in the way in which opponents of renewable energy developments have historically been viewed.

The problem of local resistance to renewable energy projects is frequently obfuscated and made even more contentious by the label of ‘Nimby’ (from ‘not in my back yard’). For a long time, the social gap phenomenon was simply dismissed as a manifestation of Nimby behaviour, which was – and still is – applied as a pejorative that makes little attempt to understand the underlying issues that drive residents to either oppose renewable energy projects or, at best, offer only qualified support for them.^{6,10} In fact, local opposition is typically based on detailed knowledge of the area, and a good understanding of the proposed renewable energy development itself, and associated issues of sustainability and environmental impacts.⁸

The public may be in favour of renewable energy technologies, including wind, but this enthusiasm is discriminating and support can be qualified.⁵ Although many sociologists over the past several decades have done a great deal to discredit the Nimby hypothesis, it persists in the minds of policy makers, planners, developers and the media, even if the accusation of ‘Nimby’ is no longer made explicitly.^{30,33} This can be partly attributed to the institutional tenacity of the information deficit model.³²

As we shall see, the reaction of local communities to renewable energy projects is a product of many factors which centre on the requirement for public participation to be included in any energy project. There is no one ‘correct’ method of public participation, and it can be performed as an ongoing fluid process to assess the degree to which residents wish to exercise their right to express their objectives and values in the context of their community and on a wider national (or even global) scale.^{4,12,25} The challenge is to engage local residents and the wider community using a framework that acknowledges the values of all actors involved in such a complex issue.^{34–36} In many instances, empowering communities by ceding power to them in the decision-making process enables greater collective (or social) learning, improves the social and environmental outcomes of any decisions made, and creates an informed citizenry that can better approach problems affecting people on local and national scales.^{10,12–14} Crucially, this social learning frequently leads to a deeper understanding and realisation of the issues associated with energy provision in a modern society, especially with regards to renewable energy.^{7,13,37}

Understanding the public's views on wind power

Rethinking Nimby-ism

Since the early citizen advocacy movements of the 1960s and '70s public participation has been seen as a cornerstone of environmental policy and decision-making.¹² Several countries in Europe that far exceed the UK in terms of renewables penetration in the national infrastructure have a long history of engaging in a public participation process, one which stresses the need for collaborative discourse and cooperative decision-making, in particular for localised energy projects.^{3,16–18,38} In contrast, energy infrastructure in the UK has grown out of a top-down (technical–managerial) model whereby development is centrally planned and organised, or entirely led by private entities with little stakeholder involvement, least of all ordinary citizens.^{6,12,38} Since 2000 the concept of public participation has moved to the centre of the renewable energy debate in the UK, illustrated by the government's increasing emphasis on 'community' (discussed below), but it is still commonplace for planners and developers of renewable energy projects to face opposition from residents and local authorities.^{5,10,39} More than any other renewable energy source, wind power is highly visible, and many opposition movements that protest against the development of wind turbines are born out of aesthetic concerns.⁹ However, this is not to say arguments simply boil down to locals not liking turbines 'spoiling their view'. To use such a reductive argument to characterise community members views on wind power is inaccurate and attempts to ostracise those who are exercising their democratic rights.³³ It is important for developers, policy-makers and community advocates to understand what motivates residents to oppose or support wind power in their locality.^{5,7,10}

First of all, what is implied by the term Nimby? It is best defined as the dichotomy between the public good and an individual's attempt to maximise their own utility.⁷ This is to say, obtaining energy from renewable sources is for the public good; and local opposition to the building of a specific renewable energy installation is the manifestation of the individuals' desire to minimise the impact on them personally. However, studies on community views relating to the installation of wind farms reveal that opposition – whilst instigated largely by the announcement of an impending local development – is not driven by local considerations alone, but by the perceived gap in understanding how wind power will benefit society as a whole.^{5,7–9,27} As with any infrastructure development, there can be a disparity between the global benefits in adopting wind power generally and the impact of wind turbines on a specific locality.^{8,27,40} The impacts, whether real or speculative, are keenly felt by locals, who may be concerned for the immediate effects on landscape, environment and safety,

but too often the benefits and revenue are seen to be externalized, 'leaking' away to non-local agents.⁴¹ Finding a 'true' Nimby resident is rare, and it is typically the case that democratic and open engagement with communities reveals a range of nuanced and qualified support for wind turbines, although some communities may conclude that a development is not suitable for them.^{5,7,9} Labelling opposition as 'Nimby-ism' serves no explanatory purpose, and ignores the fact that people may conceptualise their views of renewable energy technologies in many different ways that encompass uncertainty, apathy, and other qualified viewpoints, rather than outright support or opposition.^{5,42}

Clearly, there is a need to address the concerns of local communities during the planning process, where the community is engaged from the start so that residents can fully explore what the development means to them in the context of both local effects at the site and the wider issues of national energy and climate change policy.^{10,36,39} Indeed, the new planning regulations requiring wind projects to have pre-allocated sites in a local policy framework or neighbourhood plan²⁰ can be viewed as a means to engage in truly participatory local planning for wind power, where regional communities can explore opportunities for wind developments across a given area rather than presenting a single option that has been pre-selected by a developer.

In light of jettisoning the Nimby hypothesis, the legitimate site-specific concerns that residents might have must be addressed. There will always be issues that are unique to any one locality, but a number of features common to wind farm developments have been found in cases from the UK, Europe and North America where significant public opposition exists. It is instructive to look at these and identify the wider issues they signify.

Perception of landscape affects 'place protective' behaviour

Aesthetic value and how wind turbines change the uses and perceptions of a landscape is an issue that lies at the heart of most controversies surrounding wind power developments.⁹ Such a value-laden area of discourse presents a particularly challenging dilemma that resists easy technical fixes. The social, cultural and psychological nature of the issue means that complaints differ significantly across time, place, land tenure, history and culture. The notion of 'place-protective' behaviour is a recent and compelling narrative that seeks to explain the emotional connection of residents to a locality and how it forms part of their identity.⁴

The concept of 'landscape' itself is fluid and hard to assign any defined meaning to. Commentators have sought to explain aesthetic experience of landscape in terms of both 'multisensory engagement' and 'cognitive

understanding' of its nature, potentially leading to preferences for landscapes where there appears to be a 'functional fit' between human interventions and the natural environment.⁴³ This sense of landscape also extends to the seascape, which is frequently, and erroneously, considered to be free from the conflicts seen with onshore installations.⁸ Offshore wind power is not exempt, receiving resistance from otherwise environmentally minded groups who protest turbines and other infrastructure developments that are proposed to be built out at sea.^{28,44,45} For many residents, the inherent characteristics of wind power technology, especially its visual aspect, threaten the way people at wind sites have become accustomed to living.⁹ To exploit wind at a site necessitates the building of wind turbines – there is no way around this fact. Efforts by wind developers to address the root cause of local opposition to wind farms too often ends up with them stressing the 'greater good' but seemingly offering nothing but detrimental effects on the landscape. By disregarding residents' sense of place attachment, in the process presenting any provision of direct benefits in the language of inducements or compensation, then the public will unsurprisingly see any wind farm development as an imposition to be borne.^{4,10} The wind industry's attempts to sidestep this public backlash has been to point out that wind power,⁴⁶

'...produces no toxic waste, no radiation, no acid rain, no greenhouse gases, no thermal discharges, and no irreversible landscape changes. Though correct on all counts, there was still nothing the industry could do or say that would make the turbines invisible, and this left the most glaring infraction of wind power unresolved.' Pasqualetti (2001, p.694.)

This highlights that the place of wind power in the landscape will always be a challenge for advocates and developers. The reaction of locals to wind farm developments is difficult to predict, but it is worth remembering that there is plenty of evidence that shows wind turbines are also often viewed as a welcome addition, increasingly appearing as backdrops in film and TV, photographs and paintings, and even being described as beautiful and calming.^{9,47-51} People's connection to landscapes can encompass the fact that the land can provide important resources, clean, renewable energy being one of them.

Crucially, opposition to wind turbines is, much like supportive views, subject to qualification. Some residents may oppose a wind farm being built in a certain type of landscape, wherever that may be. In this case, support for wind power is qualified by the need to demonstrate that the technology will not adversely affect important natural environments. This is a very different motivation to that of a 'place-protector', who may resist any

development in a specific landscape to which they hold deep psychological affinity for, even though they may hold a more moderate view of non-local developments in similar landscapes.⁵ It can be difficult to identify these differing motivations and value judgements within a community. Indeed, acknowledging that there is no homogeneous 'community of place' that developers can address is a necessary part of public engagement strategy. In reality, the situation is more typically represented by dynamic 'communities of interest' that do not always align and can shift during the lifetime of a development.^{39,52} This relates to the next theme, concerning issues surrounding ownership of the development and locals' relationship with the developers and wind power advocates, both external and internal.

Ownership and distributive fairness

It is an oft-repeated maxim that the UK has little history of the alternative energy activism and cooperative ownership models so prominent in several European countries, such as Denmark and Germany.^{6,16} Some have argued that, in fact, community owned renewable energy projects were not precluded in Britain, and successful locally owned wind farms have been possible even with economic and planning barriers.⁵³ Since the early 2000s, national and local government departments have stressed the importance of community funded renewable projects to the future of a 'low-carbon' UK.³⁹ Both UK and devolved administrations have invested in financial support schemes, e.g. the Rural and Urban Community Energy Funds in England, CARES in Scotland and Ynni'r Fro in Wales, and there has been substantive policy support in the form of the UK's first Community Energy Strategy.⁵⁴ Despite these good intentions, UK energy infrastructure has remained locked in to a centralised system of large corporate owners advancing renewable energy technologies in response to a government-mandated national energy strategy.⁵⁵ In the UK, lack of community involvement is regarded as a contributing factor to the continuing difficulties wind farms face during planning applications. Historically, where local residents and authorities are often the motivating force behind wind farm developments, direct involvement in the planning process and a stake in the economic benefits that result leads to greater acceptance and deployment of renewable energy technologies, and better outcomes for the communities involved.^{3,10,47,56}

The interpretation of how 'community' takes a central role in renewable energy projects in the UK has taken on many forms, including public sector partnerships, social enterprises and locally-owned cooperatives.^{13,17} In many ways, the openness and malleability of the term 'community' in the context of renewable energy planning has given flexibility and space for more innovation, allowing different projects to flourish under conditions appropriate to the local situation.^{13,37,38}

However, this uncertainty has also meant that issues arise over inclusiveness and distributive fairness, especially as the scale of benefits to be obtained from a wind farm increases.^{39,52} Conflict may also stem from compensatory benefits offered by corporate-owned wind farms.²⁶ For example, in west Texas, where wind power is almost universally viewed by communities as a welcome development that has brought economic revitalisation, there are still profound disagreements over distributive fairness. There is a sense that not everyone in the community benefits equally, and that many of the more impoverished residents find themselves even worse off and further marginalised.⁴⁸

A striking example of resistance to offshore wind off the coast of Redcar in Teesside, also shows that existing industrial development does not automatically lead to public acceptance for further development.⁸ The general view is that,

'...the difference between the wind farm and the petrochemical factories is that these industries form the economic heartland of the area, and (unlike the wind farm) provide jobs and income for local people.' Haggett (2011, p.506)
[emphasis added]

Opposition to wind power developments have also been noted in other proposed developments in 'industrial' dockland environments,⁵⁷ These places may not be considered unspoiled landscapes, but, nevertheless, residents clearly feel that the existence of industrial developments is no reason to add more development.⁵⁸

Local versus national and global impacts

The history of renewable energy deployment in the UK since the 1990s has shown that residents are quick to voice concerns over perceived local impacts, particularly environmental.^{8,9,25,44} Indeed, an environmentally conscious citizen, who might well be mindful of the wider issues pertaining to climate change, can hardly be expected to endorse a local wind farm if they believe it will be detrimental to the local environment. Note that the information deficit model would fail to explain this form of opposition.^{5,30}

Too often, it is assumed that renewable energy technologies are viewed by the public as implicitly good or beneficial. The views of residents will be shaped largely by societal and cultural norms, and it is no surprise these will not automatically fall into line with the institutional opinions that have dispassionately weighed the benefits and risks of a large-scale renewable energy development.^{10,59} When these external institutions are introducing unfamiliar technology that some communities may feel intrudes on a special landscape, it stretches the community's credulity to simply accept these changes without questioning

them.^{8,28,32} Increasingly, a more environmentally-aware public is also more interested in the issues surrounding large-scale implementation of renewable energy and land use impacts, and are unwilling to accept assurances on face value.^{25,44} This is a clear demonstration of the fallacy of the Nimby label, which is predicated on the rationale that an uninformed citizenship is simply dismissing local developments out of hand.⁴⁻⁷ It shows that developers must actively seek to rid themselves of this view that the public is an 'ever present danger'.¹⁰

Local environmental concerns often obscure an important misconception surrounding many wind power developments. In contrast to the commonly held view that opposition arguments are driven by local concerns and supportive arguments are driven by national or global concerns, many communities make the decision to accept wind power because it addresses local needs.^{36,39,47,48} Economic revitalisation and the ability to demonstrate that a community is dynamic, innovative and welcoming to high-tech industry are fundamental to many renewable energy planning decisions made at the local municipal and community level.^{16,36,41,48,60} Because of the degree of automation in wind turbines, reinvestment of revenues from wind power generation is the key to making a development serve the community in an equitable manner, rather than relying on economic benefits from associated operations, such as construction and servicing.^{41,48}

When positive impacts are made inclusive, with reinvestment into social schemes with well-defined objectives, a wind farm development can improve social sustainability and provide benefits to struggling communities. Revenue fed back into local social services, i.e., education, healthcare and residential care, and into non-core industries, e.g., community businesses, agriculture and fishing, can help maintain the local labour force and increases the economic activity of the regional population.⁴¹ As mentioned above, however, assessment of and engagement with a community must be transparent and inclusive. With growing revenue streams fed by wind farm developers back into communities there is increasing conflict over how 'affected communities' should be defined.^{39,52,61} The corollary is how these funds should therefore be managed and governed, given the possible wider application of community in this context.⁵² For place-based reinvestment, it is vital to use local participation when planning disbursement of funds, and to fully understand the limits and appropriateness of any financial measures proposed. Distributive fairness and the motives of developers remain central concerns for locals. The approach of developers must not be to frame disbursement of funds as compensatory or an inducement, but to incorporate financial mechanisms early on in planning as a genuine means to provide economic benefits to a community.^{26,41,52,62} Social and

economic growth, after all, should be seen as a natural extension of a community's closer engagement with modern decentralised energy technologies and industry.

The final facet of the local vs national issue is that it is commonly the case that communities place great store in opinions of local news and campaign organisations, whereas developers and central government receive little confidence. Indeed, while educating and placing responsibility on individuals in the areas of microgeneration and saving energy in the home and transport system has been a central pillar of the UK government's climate change policy, there has been a failure to link this 'bottom-up' approach with the national strategy regarding large-scale energy generation infrastructure.^{10,55,63}

Thus, at the domestic level, citizens are treated as active, willing participants who are asked to voluntarily adopt a 'range of new, unfamiliar, and rather expensive technologies'; whereas when it comes to large-scale generation projects communities are considered 'hosts' and public engagement is simply to 'secure public acceptance of developer-led projects.'¹⁰ Here again is another demonstration of the tensions that are caused by conflict between local and national priorities.^{12,64} The UK general public consistently show greater level of trust in local pressure groups and environmental non-governmental organisations (NGOs).^{25,26,44} NGOs may even hold favourable views regarding renewable energy in support of national interests, but find themselves in opposition at the level of a local branch.²⁵ Efforts to speed planning procedures in an attempt to meet national targets for renewable energy only serve to further erode the public's trust in a centralised government or nationally-based private developer. When battle lines are drawn between local and national agencies, then an 'us and them' or 'progressive vs. conservative' character is established, circumventing the participatory discourse that is supposed to give citizens a chance to air their views.^{14,27}

Such rigid stances will lead to a failure of many developments to gain planning permission and, perhaps worse, make the public mistrustful of renewable energy generally. Ensuring public participation helps build trust with local organisations, who frequently convey information to residents in their role as trusted sources, helping mediate social learning and acceptance of change to their place of attachment.^{4,35,65}

Procedural justice, exploration of values and public participation

People are aware of environmental impacts, both local and global; they understand that landscapes may be mutable, and adapt to prevailing social and technological trends; and it is obvious to many that

development of renewable energy should bring with it benefits, but may also bring disadvantages if not appropriately planned and delivered. Engagement, discourse and participation from the beginning of any renewable energy project should be one of the key aims of planners and developers, so allowing communities to explore and voice their values and interest in the context of the UK's evolving energy infrastructure.^{2,10,13,14,35} There are several ways in which public engagement can be approached, and these are discussed below.

What is highlighted here is the very real problem that exists in the UK, where centralised, top-down planning imperatives are forced on a dissenting public in the face of the participatory process, which leads to increased hostility to or defiance of the measures implemented. The centralised, top-down model means that the public generally has only a limited understanding of how the energy they consume is sourced and delivered to them. This has the effect of creating 'significant spatial and psychological distance between energy generation and use'.³⁸ This disconnect between the provision of energy services and the externalities associated with this process is of great importance; for public participation to be valid it must first create the opportunity for learning.^{6,14} Engaging residents in the weighing and analytical process that forms part of any complex project, such as a modern wind farm, frequently results in a greater appreciation of the difficulties faced by developers and policy-makers; it builds trust, and highlights in the public's mind the challenges and objectives involved when implementing an overall renewables strategy at local and national scales.^{7,10,13,66}

This is not the same as a public consultation where residents are presented with a didactic process designed to lead them to the 'right' choice. Rather, consultation should engage members within a framework where stakeholders in a local community can assess the advantages and disadvantages of a project based on environmental and social impacts resulting from the siting of renewable energy developments, then being able to express opinions in a way that reflects the residents' own values.^{2,4,25,66}

The issue of procedural justice is an exacting one for renewable energy developers, whether they are an external corporation or community-led group of local activists. For one, deciding how wide to extend the notion of 'affected community' is difficult, and not getting it right the first time can quickly heighten tensions between resident groups.^{39,52,61} Many private developers are reluctant to involve community groups, seeing community partners as constraining and adding to the complexity of any development.⁵⁵ On the other hand, the ill-defined nature of 'community' with regards to renewable energy in the UK means that, if a development is labelled as a community project, when

members of the wider community feel they are excluded from the key planning decisions and receive little direct benefit from an installation in their locality, then this will increase the scope for resentment and objections.^{13,39,61} Although local residents may have many similar overlapping concerns as other stakeholders, there can be fundamental differences in the way they perceive benefits derived from a wind farm, particularly if they believe most of the benefits will accrue to distant consumers or groups of shareholders rather than to the affected community.^{8,13,26,41,66}

Transparency and trust are key to any engagement with the public. In many cases, it will be apparent that some decisions have been made, or at least the options limited, during planning and development. It is essential that residents are not 'managed' in an attempt to have them acquiesce to something already decided.^{12,67} As has been touched on above, national climate change mitigation strategies are driven by predetermined aims, which frequently are in conflict with residents' short-term objectives. How then to accommodate dissenting voices and ensure all residents are given the opportunity to meaningfully explore what the development means to them and have their say? The danger here is that developments described as involving public *engagement* are increasingly treated as synonymous with public *participation*.^{10,67}

Standard methods of engagement are not synonymous with true participation – often the flow of information is only from sponsor to locals, with no dialogue and certainly no formulating of new opinions (most evident in the 'decide-announce-defend' approach to community engagement). In many cases, developers simply desire a one-way communication of ideas versus a more participatory process.³⁰ This inevitably leads to tensions or outright conflict.¹⁰

Pursuing public engagement for purely instrumental objectives, i.e., to achieve what the developer wants, fosters the belief in the public as unknowledgeable, uneducated and unwilling to engage with renewable energy technologies at all, which is damaging and quite incorrect. In the end, communities become sceptical of developers' motives, which too frequently hardens into the belief that 'developers do not engage with objectors to listen to and address their concerns, but rather to find ways of overcoming or managing local opposition.'⁶⁷ These objections are important, because public engagement has no legitimacy if it is simply there to lend credibility to a decision already made. Nothing will alienate communities and turn public opinion away from renewable energy developments faster than paying lip service to the idea that their opinion matters. As Arnstein⁶⁸ points out in her seminal 1969 paper on citizen participation:

'There is a critical difference between going through the empty ritual of participation and having the real power needed to affect the outcome of the process [...] Participation without redistribution of power is an empty and frustrating process for the powerless.'
Arnstein (1969, p.216) [emphasis added].

Degrees of public participation

Typologies of participation (that is, the range of participatory mechanisms that are employed when implementing environmental developments) have often been treated as a hierarchal *ladder of citizen participation*.⁶⁸ Based on the reasoning that some types of public participation are more appropriate than others depending on the circumstance, the ladder of participation was revised to the non-linear wheel of participation (see Figure 8.1).^{34,69} This is an important consideration that helps agencies avoid following a 'one size fits all' approach to public and stakeholder participation. Broadly, participatory mechanisms can be categorised as:¹²

- **passive participation**, characterised by a more didactic approach whereby the public receives information on decisions that have already been made;
- **consultative**, where the public is given some opportunity to deliberate on a (generally quite limited) range of predetermined options;
- **interactive participation**, in which case the public is more deeply involved in analysis of problems and formulating solutions;
- **self-mobilization**, where the public takes initiative independently of external agencies.

These mechanisms are not rigidly delineated and there may be elements of all types found in any one locality where a renewable energy development takes place. It is interesting to note that surveys carried out in UK communities suggest the public does not automatically gravitate to the most all-inclusive mechanism (interactive or self-mobilisation in the list above) as one might assume.^{70,71} Although there is desire to give communities more control over projects that directly affect them, many residents appreciate the benefits that expert leadership by external agencies can bring to help develop, build, coordinate and operate renewable energy facilities.^{37,38,55,71}

The willingness of citizen stakeholders to adopt appropriate forms of participation (rather than demanding total control) is a timely reminder that developers can only gain from public participation.⁴ It is also a demonstration of the importance of ventures taken on by social enterprises.^{17,37} Such schemes typically involve residents and consumers as stakeholders

in a project. This facilitates acceptance and installs an important social element into the mix, such as putting in place strategies for reinvestment of revenue, helping target fuel poverty, involving local contractors where possible, and encouraging rural economic development.^{17,37,41,62} On mainland Europe such ventures are often coordinated and pushed forwards by municipal administrations, so guaranteeing an additional element of local governance.^{16,60}

Conclusion

One key obstacle to achieving a lower-carbon energy supply system in the UK is the high proportion of renewable energy projects that fail to progress past the planning stage in the face of local opposition. The widespread implementation of renewable energy infrastructure since the 1990s across has shown that opposition is not limited to wind turbines alone, with bioenergy facilities, geothermal projects and offshore structures also facing public opprobrium. The increasing integration of these types of distributed energy projects differs from the dominant centralised model of traditional fossil fuel generation, and it has highlighted the tension that exists between national interests and local opinion.

This 'social gap' between acknowledging the benefits of wind power (and other renewable energy technologies) whilst objecting to any such development on a local level has in the past been dismissed as Nimby-ism. This fails to address the complex interactions between a community's societal and cultural norms and their link with place attachment, and the Nimby 'myth' has been justifiably discredited. It is increasingly recognised by sociologists that 'the public' reacts in ways that can be difficult to predict, based upon interlocking value judgements and a keen sense of both potential advantages and disadvantages relating to renewable energy infrastructure. The information deficit model, which holds that the public possess 'incorrect knowledge' and has a tendency to make emotive rather than rational decisions, is slow to lose its grip on the institutional culture of planners and developers. However, whilst the value of fully engaging residents through models of public participation is slowly being taken on board by the wind industry, there is still a tendency to take public engagement to mean public participation. There are many forms of participatory mechanisms that can be applied to renewable energy projects, but the key issue is that communities are empowered to explore values important to them and assess possible configurations of renewable energy provision. This collaborative discourse between affected communities and developers allows

informed citizens to take control of their energy infrastructure at an appropriate level.

In the UK a top-down (technical–managerial) approach has driven much of the country's renewable energy development so far, creating a democratic deficit that is often filled by vociferous opposition groups. Involving communities in the decision-making and planning process fosters cooperative discourse rather than open-ended conflict, and creates a better understanding of the wider issues involved in energy policy and the environment. In addition, an informed and motivated community with a real investment in a wind power development will be well-equipped to integrate renewable technologies effectively in a manner that reduces social inequity. Communities take pride in their history of development, with local technologies and industries often a source of pride. Clearly, there is space for wind power developers and local supporters to find common ground with residents concerned about the impact of wind turbines in their vicinity. Rather than instigating confrontation and compromising on an uneasy truce, it should be possible to avoid drawing battle lines at all.

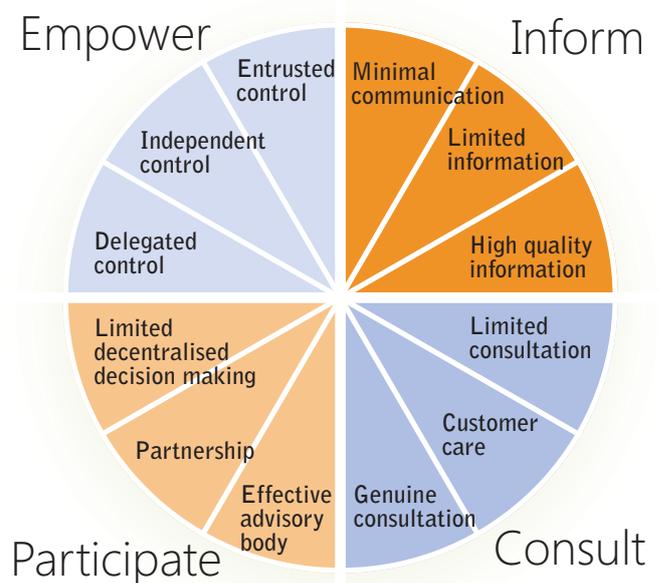


Figure 8.1 An abridged version of the wheel of participation, adapted from the original in Davidson (1998). Through a collaborative process, communities, planners and other stakeholders, collectively decide on the quadrant that should best define the project. This helps to attain the appropriate level of community involvement with the full participation of residents in this decision.

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