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**Locating 'Power' in Wind Power Planning Processes:
the (not so) influential role of local objectors**

Mhairi Aitken, Seonaidh McDonald and Peter Strachan

Locating ‘Power’ in Wind Power Planning Processes: the (not so) influential role of local objectors

ABSTRACT

There have been conflicting accounts of the role and influence of local opposition within planning application outcomes for wind power developments. There is an expanding literature which considers public responses to proposed renewable energy developments and much of this suggests that public opposition is a key factor in the slow growth in renewable energy capacity. However, this paper will show that local opposition groups’ power over such planning processes is very limited, and in fact extends only so far as delaying an outcome. Through a thematic content analysis of objection letters to one particular proposed wind power development, the key issues raised in connection with the development will be highlighted. Subsequently, these issues will be compared with those discussed in the official report of the planning appeals process, and it will be shown that the concerns of local objectors had little influence over the eventual verdict.

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INTRODUCTION

Within current UK policy debates, energy is something of a hot topic. In response to the threat of climate change, along with concerns over security of supply, the UK Government has committed itself to targets for the proportion of energy which must be produced from renewable sources. There is a wide range of technologies included under the heading of 'renewable energy', however, onshore wind power is widely acknowledged as being the most viable currently available technology within the UK and is regarded as having huge potential for development (Brennand 2004). A target of 10% of total electricity production from renewable sources has been set for the year 2010, along with an "aspiration" of 20% by 2020 (DTI 2006a). However the UK is not on course to meet these targets. A report produced by the Department of Trade and Industry (DTI) in 2006 stated that in 2004 renewable energy only supplied an estimated 3.6% of total UK electricity, and this was predicted to have risen to 4.1% in 2005 (DTI 2006b).

A significant, and growing, literature has emerged to address the question of why targets are not being met despite the Government support for renewable energy and the apparent feasibility of wind power. Much of it points towards the existence of public opposition to proposed renewable energy developments (see for example; Bell et al 2005, Devine-Wright 2007, Ellis et al 2007, Peel & Lloyd 2007). Brennand (2004:83) argues that around 30% of all renewable energy projects are subject to "vociferous and well organised opposition".

However, Toke notes that approval of planning applications for onshore wind farms is over 70% (after appeal) in England and Wales (2005a), and over 90% in Scotland (2005b). This portrays a situation in which planning applications are being

relatively successful and opposition to wind farms, particularly in Scotland, is not posing an insurmountable barrier to development. In this paper we will examine the role and influence of wind farm opponents in the planning process in order to inform this debate about their significance for the development of wind power in the UK.

Through considering the objections which were expressed by members of the public about one particular proposed wind power development, and subsequently what role these objections played within the planning process and eventual determination, this paper will illustrate the limited and superficial nature of objectors' influence within such planning processes. Furthermore, it will highlight the significance of personal values within objections, and the impact that overlooking what are considered to be subjective matters has on the ability of local objectors to play an effective role in influencing planning outcomes. It will be suggested, in line with the work of Wynne (1982), that through various means the planning appeals process serves an implicit role of controlling democratic processes and can be taken to represent an exercise in 'social control'.

AN OVERVIEW OF THE LITERATURE

Much of the literature concerned with public reactions or attitudes to wind power takes as its starting point the apparent contradiction that whilst public support for wind power is high, (e.g. Wolsink 2000), new wind power developments are becoming ever more difficult to realise (Toke et al 2008). By and large this is attributed to strongly vocal localised public opposition to wind power developments (see for example, Breukers and Wolsink 2007).

Much of the wind power literature has focussed on providing explanations for the existence of opposition to wind power developments: “The logic that has often been applied to explain this phenomenon is that it represents an ‘attitude-behaviour gap’ which suggests contradictory values amongst the public” (Ellis et al 2007: 519). In this way studies of objectors to wind power developments have treated them as homogenous and deviant.

It is argued that wind power opponents typically believe that the loss to them personally – or to their community – from the development of a wind farm outweighs the environmental benefits (Ebert 1999, Krohn & Damborg 1999). Wolsink (2000, 2007a, 2007b) states that the strongest influence on an individual’s attitudes towards wind farms comes from the perceived visual impact, although Woods (2003) notes that such arguments have little impact within the planning system. Previously the NIMBY (Not-In-My-BackYard) paradigm has frequently been used to explain opposition. This is when people are in favour of a phenomenon (i.e. wind farms) in principle but oppose it when it is proposed near to them, or in a way which would affect them or their lifestyles. NIMBY explanations for wind farm protestors have however come to be widely discredited (see for example; Devine-Wright 2005, Wolsink 2000, Wolsink 2007b, Ellis et al 2007).

Recently studies into public responses towards wind power developments have come to be more nuanced and considered, however, the emphasis predominantly remains on explaining the occurrence of opposition, implying that this opposition is ‘wrong’ (Ellis et al 2007). Indeed, much of the literature appears to be based on the assumption that opposition is something which must be overcome (see for example, Bell et al 2005, Peel & Lloyd 2007, Strachan et al 2006, Toke 2002, Wolsink 2007b). This representation

inevitably impacts on the ways in which the ‘problem’ is defined and considered, and may go some way to explaining why, “Despite a range of studies being carried out on public attitudes towards renewable energy technologies, genuine understanding of the dynamics of public acceptance remains elusive” (Devine-Wright 2007: 10).

Ellis et al (2007: 535) contend that since previous research has focussed almost exclusively on objectors; “the way in which support is constructed has been rather neglected”. Their study (Ellis et al 2007) provides an insightful account of the varying views of both objectors and supporters and highlights the numerous, and often conflicting beliefs, experiences or values which influence and shape individuals’ attitudes towards particular wind power developments, and to wind power in general. They contend that “the key issues facing wind farm development are not ‘objective’ policy blockages, but clashes of values related to inter alia, governance, technology, landscape aesthetics, issues of participation and power inequalities” (ibid.: 521).

These are issues which will be addressed in this paper. In contrast to much of the literature referred to above, this paper is not based on any presumption in favour (or opposition) to wind power in general, nor to the particular wind power development in question. The intention of the paper is not to highlight ways in which opponents might be overcome or converted but rather to illustrate the experiences of opponents within planning processes and how such experiences influence their views and attitudes towards the development in question. *Understanding* such experiences is considered a worthwhile goal in itself. This paper therefore represents an attempt to illustrate faithfully some of the key concerns of objectors to one particular proposed wind power development without any presumptions as to the merits of the proposed development.

DEFINING POWER

Since an aim of this paper is to highlight what power objectors' have within wind power planning processes, it is necessary to outline briefly what is meant here by the term 'power'. This is a concept which is interpreted in a vast number of different ways and importantly "both its definition and any given use of it, once defined, are inextricably tied to a given set of (probably unacknowledged) value-assumptions which predetermine the range of its empirical application" (Lukes 1974 [2004]: 30). The central relevant consideration for this paper is how a particular individual, or group can be perceived to possess (or not to possess) power.

This paper is primarily concerned with objectors' power or lack of power to influence the outcomes of planning processes. This interpretation of power reflects what Lukes (1974 [2004]) described as the one-dimensional view of power. This view is essentially concerned with power as it is exercised in formal institutions and made visible through overt conflicts and decision-making outcomes. This is therefore the most easily observable form of power. However, it is important to note that the one-dimensional view of power is seriously limited and this interpretation of the concept explains only one aspect of power. The two-dimensional view of power, outlined by Lukes (1974 [2004]) observes its presence in formal decision-making, but also acknowledges its role within informal settings and in less visible activities such as agenda-setting. Conflict according to this view can be covert as well as overt. Lukes' key contribution is in critiquing both the one- and two-dimensional views by noting the limited understandings of power that they present. He contends that both views suggest that power only becomes visible during

conflicts – a position which he disagrees with. Lukes (1974 [2004]) therefore proposed a three-dimensional view of power which took into consideration not only how power is exercised within conflicts but also the role of power to prevent conflicts through shaping people's interests and beliefs. In this way neither decisions nor conflict are necessarily required in order for power to have been exercised. According to the three-dimensional view, power is exercised in many ways which are not easily observed – even to the persons upon whom power is exercised.

Consequently this raises questions as to whether power is most appropriately measured through outcomes or processes. It may be relatively simple to assess whether objectors possess power according to the influence they exert on the planning outcome, but it is more difficult to determine which forms of covert, or latent power are being exercised by, or upon, the objectors. The conclusions to this paper will therefore revisit such considerations to take into account the various different forms of power which appear to have been exercised.

THE PROPOSED DEVELOPMENT

The research presented here focuses on one particular planning application for a commercial wind power development in a rural area of central Scotland. The prospective developers were one of the largest energy companies in the UK and are said to own and operate almost 50% of all current renewable energy capacity within the UK. The proposed development would consist of 16 turbines and ancillary works and the total capacity of the wind farm was expected to be 32 mega watts (MW). The selected site was situated between two small towns with the largest being seven miles away and having a

population of 1700, the smaller of the towns was located approximately three miles away. The wind farm would be situated on a hill which (like the surrounding land) is predominantly used for grazing sheep. The wind farm would be close to the boundaries of two Sites of Special Scientific Interest (SSSI) which together are classified as a Special Area for Conservation (SAC).

Once constructed the wind farm would be expected to cover an area of around 450 hectares, with the individual turbines standing at 67 metres high and with blade diameters of 80 metres, (thus, having a total height of 107 metres). Each turbine would require a reinforced concrete foundation which was anticipated to be 16 by 16 metres in area and one metre in depth. The turbines would be arranged 300 metres apart in a pattern which was said to closely follow the contours of the hillside. The development would also require access roads, an anemometer mast to monitor wind speeds (this would be 67 metres in height) and a control building with electricity substation. The wind farm would have an operational life of 25 years after which time it would be decommissioned.

The local community did not appear to play a major role in the design of the proposed development, although the developers did hold public meetings to invite local community members to view their plans. 'Community' is a term which is increasingly employed to describe aspects of renewable energy developments, however there is little clarity over what the requirements of a 'community' project are, or should be; Walker and Devine-Wright (2008) note that typically this involves a focus either on community involvement in the design and development processes, or community benefits from the development. In this case the project could not be considered a 'community' development in terms of the process, however there would be a 'community benefits'

package once the wind farm was in operation. This package consisted of financial benefits and would involve a significant fixed annual payment as well as a variable payment based on the output of the wind farm, in addition the developers would invest in energy efficiency related projects within the community. Thus, the project could perhaps be considered to have a ‘community’ focus in its outcomes, however to call it a ‘community’ project would be unrealistic.

Within the Scottish planning system planning applications for wind power developments which are less than 50 MW are determined by local authority planning departments, whilst those over this limit are determined by the Scottish Executive. Thus, the outcome of the planning application in this case was originally to be determined by the local authority.

The official planners’ report recommended approval of the planning application and there were no objections from any statutory consultee, so it appeared that planning permission would be granted. However, there was significant local opposition to the proposed development in the form of a local campaign group. The group was successful at generating a large number of objection letters and also attracting significant local media coverage. The local authority refused planning permission and, given the lack of ‘official objectors’, it appears that this local opposition group had a strong influence on the outcome of the planning application at this stage (this reflects the findings of Toke 2005a).

However, the developers lodged an appeal against this decision, and this instigated a public inquiry. Whilst in the initial planning application stage the decision-makers had been elected local council members, at the public inquiry the decision-maker

was a ‘reporter’ from the Scottish Executive Inquiry Report Unit (SEIRU)¹. As will be shown below, this later stage of the planning process was a far more expert-oriented arena within which local objectors had a somewhat marginal role to play. Moreover, this was a forum within which concerns which had been expressed within objection letters, and hence had an influence on the earlier planning application process, were unable to be articulated. This may partly explain why the outcome in this second phase of the planning process was different than the first. Ultimately, the appeal was upheld and planning permission was granted. However, this paper will argue that there was very little prospect of any other outcome occurring.

THE RESEARCH FRAMEWORK

The particular proposed development was selected since, for the reasons set out above, it appeared to represent an occasion where objectors from within the local community had been a primary factor in the refusal of planning permission in the initial planning application process. Whilst some support for the proposed development existed within the local community, negative feeling towards the project was far more visible, vocal and organised. Although this is a single case study, and as such cannot make claims to being representative, the findings discussed below relate primarily to the planning processes and policies which governed the case. Therefore, although there are clearly a number of social, cultural and physical variables which may not be representative of wider experiences, reflections can be made on the planning system and policies and their implications for local level implementation. The findings discussed below highlight the central role of national legislation and guidelines in directing the appeals process as well

as determining the outcome. Thus, whilst the individual case cannot be taken to represent general experiences of communities across Scotland or the UK, the implications of national policies and guidelines can be examined. Given that these policies are designed to guide such decisions nationwide it appears likely that many of the findings of this study may be applicable to similar cases.

In order to identify the key issues of objectors a qualitative thematic analysis of all the objection letters retained on file by the local planning authority was carried out. A total of 700 objection letters were analysed. Whilst the emphasis of this study is on local community concerns it must be noted that objection letters were sent from individuals residing far from the local area, (including for example, the Netherlands, Australia and Kenya). Nevertheless, just over three-quarters (76%) of the objection letters came from addresses within the same postcode area as the proposed wind farm site. It should also be noted that there were 22 letters of support recorded by the council, however due to their small number these have not been included in this analysis.

Of the 700 letters included in this analysis, 536 were proforma cards, 51 were proforma letters and the remaining 125 were individual letters. The proforma cards were created and distributed by the local opposition group and contained a list of objections which individuals could tick and also had a space in which additional comments could be made. The proforma letters were copies of one letter which had been circulated and sent to the council bearing multiple signatures. The individual letters were unique and written by individuals or families (although they typically raised similar issues and often used similar language).

To begin with, a small selection of letters was reviewed in order to create a preliminary set of codes. The initial set of codes was then broken down into categories of objection, for example; ‘Environmental Degradation’ or ‘Wind Power Technology’, and once this initial set of codes had been created it was passed onto colleagues to be reviewed and modified.

A ‘code’ is defined as a classification of a specific, recurring objection, for example ‘Visual Impact’. Though the exact words or phrase of the code name were not necessarily repeated in the objection letters they describe a theme or concern which is represented by the code name. For example, ‘Cumulative Impact’ was attributed for a total of 551 objections, however the instances where this occurred varied greatly with one letter citing “actual and proposed proliferation of wind power stations across the Scottish countryside” and another more specifically stating “The cumulative impact of this proposal and that at X is unacceptable over large areas of [local region]”.

An ‘objection category’ is a group of codes with a related theme or topic. For example, ‘Wind Power Technology’ consists of a wide variety of concerns and objections which all centre on the same topic, namely issues and problems with wind power technology. Defining categories was problematic since many codes could feasibly fit in more than one category – for example ‘Visual Impact’ which lies in ‘The Wind Turbines’ category could also have fitted within ‘Environmental Degradation’ which contains ‘Scotland has unique beauty’ and ‘The area is beautiful/unspoilt/peaceful/a wilderness’. In a case like this, all the data in the relevant categories were re-examined to determine the best fit. ‘Visual Impact’ was eventually placed within ‘The Wind Turbines’ which covers issues which relate directly to the physical presence of the wind turbines

themselves (see Appendix 1 for full list of issues included within this category). Thus the objections contained in this category were distinct from others which typically related to consequences of the turbines' presence or to issues relating to the location, community or policies associated with the proposed development, and other, more abstract aspects of the development – but *not* to the turbines themselves – this is considered a significant distinction.

Thus, the creation of codes and their positioning within particular categories is grounded in the ways in which they were asserted within the objection letters and does not necessarily relate to how the issues they represent are typically understood within the wind power literature. The final set of categories and codes is therefore considered to be a faithful portrayal of objection patterns as they were found within the objection letters .

Once the preliminary set of categories and codes had been established, the full set of objection letters were accessed at the council offices, and an initial review of these led to a revised set of objection categories and codes. At this stage many new codes were created and old ones were merged. Once these categories and codes were created they were discussed with colleagues in order to ensure reliability and precision. As a result of these discussions the final set of codes and categories represents unanimous agreement by each member of the research team.

Once a set of codes had been established, all the letters and proformas were analysed and inserted into an excel database according to the coding of the objections they contained. At this stage it was still necessary to add some new codes, therefore, the complete set of codes did not exist until after all the objections had been inputted into the excel database.

A total of 132 codes were identified, grouped in 12 categories of issues, as shown in Table 1 below, (a full list of codes is included in Appendix 1).

Insert Table 1 here

It is interesting to note the unbalanced nature of the categories, for example ‘Traffic and Roads’ contains 23 codes, whereas ‘Tourism’ only contains 5 codes, perhaps demonstrating the complexity of concerns. The categories contained between 1 and 23 issues (codes), with the average number of issues per category being 10.

The analysis of the objection letters provided insights into the nature of objections – both their methods and contents. However, in order to understand better what influence these objections had it was necessary to carry out a second thematic analysis, this time looking at the official inquiry report.

The inquiry report was the document in which the outcome of the appeal was published. It was written by the reporter from SEIRU who oversaw the public inquiry and then decided the outcome. The report contained a description of the planning application including the details of the proposed development and its history within the planning system. It then went on to review the evidence which had been given at the public inquiry, and finally summed up this evidence and the reasons behind the reporter’s decision to uphold the appeal. The analysis carried out at this stage aimed to highlight which issues were prioritised within the decision-making process.

By measuring the length of discussion dedicated to different topics or issues it was possible to gain a sense of the relative consideration which was given to each subject. Such measurements alone cannot necessarily be taken as clear representations of which issues were seen as more important; however, when considered alongside the

analysis of the objection letters they provide insights into the different priorities found within the planning process. Whilst the differences in length of discussion for different topics are illuminating, this factor alone is not sufficient to draw meaningful conclusions regarding the decision-maker's rationale or approach. For this reason, the findings discussed below also include considerations of how the issues were discussed – i.e. what language was used and which aspects of an issue were seen to be important by different parties. In this way clear differences in how the issues are perceived by different parties are highlighted.

THE RESEARCH FINDINGS

Objection letters

Table 2 provides an overview of the prevalence of particular categories of objection issue within the objection letters. It is important to note that the numbers are much higher than the total number of letters since each issue raised is the unit of analysis and letters typically referred to many issues. From this table it is apparent that a wide range of issues was raised and that these were reasonably evenly distributed. However, 'Ornithology' is mentioned the greatest number of times, followed by 'Traffic and Roads' and 'The Wind Turbines'.

Insert Table 2 Here

It is interesting to consider whether the method of objection had any effect on the nature of objections. As is shown in Figure 1, there are observable differences in the issues raised within individual letters, proforma letters and proforma cards.

Insert Figure 1 Here

Individual letters

Within the individual letters a wide range of issues was raised and there was no one clearly dominant category of objection issue. The most prevalent category was ‘The Wind Turbines’ (15%), followed by ‘Traffic and Roads’ (14%), and ‘Wind Power Technology’ and ‘Environmental Degradation’ (both 13%). Interestingly, ‘Ornithology’, which was the most dominant category overall was mentioned comparatively few times (9%). Within the category of ‘The Wind Turbines’ 40% of mentions (in individual letters) related to ‘Visual Impact’ and 19% to ‘The Scale/Size of the Structures’. This reflects Wolsink’s (2000, 2007a, 2007b) argument that visual impact has the strongest influence on individuals’ attitudes towards wind farms.

Proforma cards

The proforma cards also included a wide range of objection issues, but the order in which they were ranked was different. ‘Ornithology’ was mentioned most often (19%), followed by ‘Impact on Individuals/Families’, ‘The Wind Turbines’ and ‘Environmental Degradation’ each of which received 15% of the total mentions.

Given that proforma cards made up the vast majority of objection letters (77%) they had a clear impact on the pattern of objection issues. Some 96% of all mentions related to ornithology were found within proforma cards – as such without the local opposition campaign, of which the cards were a product, this category of objection is unlikely to have been a major issue within objection letters.

Proforma cards contained a variety of concerns, however their frequencies were different from individual letters and ‘Ornithology’ (which was not notable within individual letters) was clearly dominant. It may be that whilst individuals were concerned about various other issues, they were not deemed robust enough by the campaign group who favoured less subjective issues (i.e. potential impact on birdlife). As van der Horst (2007) has noted, opponents to wind power developments are often aware of the potential to be branded a “NIMBY” and therefore will seek to avoid being portrayed as such. Issues relating to ‘Visual Impact’ or the (in)appropriateness of the size of turbines may be viewed as matters of taste and personal preference, whereas if an endangered species of bird (such as osprey) is likely to be negatively affected by the development this may be viewed as more legitimate and less questionable grounds of objection. As Toke (2005a: 1528) observes; “one should be wary of associating such linguistic judgements (which are made to fit in with planning law) with 'real' factors which will motivate people to oppose wind power schemes”. Thus the proforma card circulated by the campaign group represents a set of issues which have been chosen and worded in a certain way based on knowledge of planning processes and policy.

Proforma letters

Finally the proforma letters provided a very different set of preferences, referring to only two categories; ‘Traffic and Roads’ accounted for 92% of all mentions within the proforma letters, and the small remainder (8%) of mentions referred to the ‘Planning Process’.

In summary, analysis of the letters appears to suggest that whilst issues relating to ornithology may have been construed to represent 'safe' objection matters, the true concerns of opponents are far broader and appear to be more concerned with the physical nature of the turbines (their visual presence in the landscape and their size), as well as to fears about the impact on local traffic and roads.

Public inquiry issues

As mentioned above, the official inquiry report contained an overview of the arguments which were made in relation to different topics at the public inquiry. In reviewing the summary provided by the SEIRU reporter one cannot claim to be reading an objective account – although it is portrayed as such – but rather the report represents one person's account of what was said and of what was important or relevant to note. Nevertheless, or perhaps due to this fact since it was written from the perspective of the decision-maker, it is instructive to consider the relative attention which is given to each of the topics.

Figure 2 shows the number of pages which were dedicated to providing an overview of each of the topics covered at the inquiry. Whilst this does not tell us anything about the content of what was summarised the differences in length of discussion between different topics is at times striking and highlights which topics were deemed most important, relevant or complex.

'Ecology and Ornithology' was covered at considerable length compared with all other topics. The topic covered in the second-most detail was 'Noise', followed by 'Landscape and Visual Impact' and 'Geology, hydrogeology, hydrology and peatland ecology'. Thus, the topics which were given most consideration only partly reflected

those which had been most central within the objection letters. Most notably ‘Traffic and Transport’ was covered in comparatively little detail, whereas ‘Traffic and Roads’ had been a key issue within the objection letters.

Insert Figure 2 Here

Prioritised issues within the inquiry verdict

The final section of the inquiry report reviews the topics covered at the inquiry and outlines the reporters’ position thereof, thus explaining how the decision to uphold the appeal was reached. As in the previous section the topics addressed in this part of the report are covered in varying depth, and it is clear that some issues are given greater consideration than others (see figure 3).

Within this section issues relating to ornithology are discussed at considerable length compared to all other topics (taking up 2.75 pages compared to the average of 1 page per topic). Equally striking is that ‘Planning Policy’, which was not a notable issue within either objection letters or evidence at the inquiry, is discussed in the second most detail (1.75 pages). This is in addition to an earlier section of the report (before the inquiry evidence was reviewed) which contained some 10 pages relating to renewable energy policy (both national and local). Thus, there was a clear emphasis on policy within the justification for upholding the appeal.

It must be acknowledged that ‘Landscape and Visual Impact’ and ‘Noise’, two major issues in the individual objection letters, were discussed in some detail within this

section of the report. However, 'Traffic and Transport' which was a key issue within the objection letters was considered within the very short space of a quarter of a page.

Insert Figure 3 Here

DISCUSSION

Insert Table 3 Here

From reviewing individual objection letters, it appears that initially the key concerns of opponents to the proposed development related to its visual presence and other aspects associated with the physical erection of the turbines. However, objections which were more organised (i.e. those expressed through proforma cards) focussed predominantly on more tangible, less subjective potential negative impacts – i.e. that endangered species of birds may be negatively affected either through collision with turbines or damage and/or disturbance to their habitats.

The topic of ornithology remained a key concern throughout the inquiry, as reflected in the inquiry report. However, as shown below, this was treated in very different ways as the planning process progressed. The second main issue in objection letters (both individual and overall) was 'Traffic and Roads' and it is therefore striking that this received comparatively little consideration within the inquiry report.

What is equally striking is the importance of policy (both planning policy and renewable energy policy) within the inquiry report, and the influence that this appeared to have over the outcome. It must be acknowledged that the appeals process exists in order to assess proposed developments in accordance with existing policies and guidelines

(O’Riordan et al 1988, Wynne 1982). However, such pre-existent policies are not permitted to be questioned or challenged at the public inquiry, and as such have an ‘untouchable’ status. In this way policy and local issues are kept separate despite the fact that they are intrinsically interconnected. This is an important point with significant implications which will be discussed below.

The analysis contained in this paper has identified some key topics related to the planning application; the physical presence of the turbines, ornithology, traffic and roads, and policy. In order to highlight the evolving nature of the topics and the role or influence that they had throughout the planning process, it is worth considering each of these topics in more detail. Previous studies (i.e. Devine-Wright and Devine-Wright 2006, Woods 2003) have demonstrated how different groups can interpret aspects of wind power (for example issues relating to intermittency, or to the ‘fit’ of a wind farm within particular landscapes) in different ways so as to support their own position (i.e. in favour or opposition to wind power). In this line, it is particularly interesting to note the ways in which different issues are conceptualised by different actors (i.e. by individual objectors compared to the inquiry decision-maker).

The Wind Turbines

As highlighted above, visual impact was a key issue within the individual objection letters. Throughout the letters emotive and passionate language was used to describe the turbines which were frequently referred to as “monstrosities”. A great deal of use was made of metaphors and symbolic language, for example in saying that the turbines would “scar the landscape”. Typically the “industrial”, “man-made” nature of the turbines was

emphasised in contrast with the perceived “unspoilt” nature of the existing landscape.

This resonates with the findings of Woods (2003) where it was observed that:

“Letters and statements from anti-wind farm campaigners speak of the landscape being disfigured, ruined, cruelly desecrated, abused, raped and sacrificed. ... The incompatibility of the wind farm with the ‘unspoilt’, ‘natural’ landscape is conveyed by the repeated description of it as an ‘industrial’ development, representing the wind farm as being ‘out of place’”.

(Woods 2003: 281)

However, this language and sentiment is in stark contrast to that used within the ‘expert’ evidence given at the public inquiry, and within the inquiry report. For example, in reviewing the evidence given on behalf of the developers the report summarises that:

“Although, in common with any windfarm development, there would be some significant effects on landscape and visual amenity in localised areas close to the appeal site, these would affect a very limited number of receptors and be restricted in geographic extent”.

Similarities between the language used to describe the visual impact of the proposed development within objection letters and that used in the above extracts are hard to find. The “monstrous blight on the landscape” has become a typical wind farm development affecting only a limited number of “receptors”. The language used within the inquiry report’s account of the developer’s evidence is clinical and quantitative, suggestive of an objective, “scientific” approach. However, since the appearance of a landscape is essentially a matter of aesthetics, it might reasonably be taken as a matter of taste and opinion and not as something which can be quantified and measured.

Equally important to note is the acknowledgement that any wind farm development would create significant effects on the landscape and visual amenity. This up-front acceptance that there will be a (negative) visual impact effectively diminishes the significance of objectors’ arguments that the development should not be allowed for this

reason. Whilst individuals writing objection letters expressed their concern that the development would be visually intrusive, this was taken as an accepted ‘fact’ within the ‘expert’ evidence. Moreover, this is stated within policy on the matter, as is noted within the inquiry report’s conclusions:

“As is acknowledged in NPPG6, any windfarm is bound to have landscape and visual impacts to some degree and it is impracticable to screen such developments.... I am satisfied that the landscape and visual impacts of the scheme would be limited and appropriate to the location, in accordance with PAN45, subject to conditions to control the appearance of ancillary elements of the scheme”.

As such, the emphasis is not on whether the development might be acceptable to members of the local community or others who visit the area, but rather whether it is acceptable in accordance with policy and guidelines.

A similar situation is found in relation to noise. Where the arguments summarised in the inquiry report relate mainly to different methods and sets of standards which have been used to assess background noise levels, and ‘acceptable’ additional noise levels (as might be created by the wind farm). In justifying his preference of the developers’ approach the reporter once again refers to national policy on the matter by stating that:

“PAN45 is quite clear in its support of the latter approach [taken by the developers]. ETSU-R-97 is intended to strike a balance between the protection of windfarm neighbours and placing restrictions on windfarm development. By its use of BS4142, the council, supported by [the local opposition campaign group], seeks to ignore that balancing aspect and is therefore acting contrary to national advice without justification”.

As will be discussed below, this heavy and consistent reliance on policy and national guidelines creates obstacles to the expression of local, objectors’ concerns and interests.

Ornithology

Concerns relating to ornithology were significant within all stages of the planning process. However, the issues which were addressed varied across the process stages. For example of the 2228 comments relating to ornithology in the objection letters only nine (0.4%) referred explicitly to Black Grouse, whereas this species of bird was the subject of considerable debate at the public inquiry, as reflected in the report. Within the objection letters the single species of bird which was mentioned most often was Osprey (with 546 mentions), closely followed by Hen Harrier (with 539 mentions).

The evidence given at the inquiry relating to ornithology was, however, concerned more or less exclusively with two bird species – Osprey and Black Grouse. In reviewing this evidence the inquiry report discusses the arguments relating to Osprey within 25 paragraphs, those relating to Black Grouse in 8 paragraphs and those relating to other species of birds in merely 1 paragraph. Equally in the concluding pages of the report the section dealing with ornithology consists solely of an 8 paragraph discussion relating to Osprey and 5 paragraphs relating to Black Grouse.

Thus whilst the objection letters had mentioned numerous bird species (including for example, owls, geese and plovers) the evidence which was considered at the inquiry focussed far more narrowly on just two species of birds. Moreover, whilst the objection letters frequently cited concerns that birds might be killed due to collision with the turbines (547 mentions related to ‘Physical harm from the turbines’) the majority of the discussion of issues relating to ornithology within the inquiry report’s conclusions focused on whether osprey flying over the proposed development site (and hence at possible risk of collision) originated from the nearby Special Protection Area (SPA). The inquiry report notes that osprey residing within the SPA must be accorded extra

protection, thus if the birds flying over the proposed development site originate from this area it could be grounds for preventing the development from going ahead.

References to osprey, or to risk of birds colliding with turbines within objection letters demonstrated that people were concerned about the possibility of birds being killed or injured as a result of the development. The sentiment often expressed in relation to osprey was that if even one bird was killed due to the development that was one bird too many. However, the sentiment is quite different within the inquiry report where the impression given is that the potential for birds to be injured or killed is only of concern if the birds are protected species coming from a special area of conservation. This highlights the peculiar notion that, despite the fact that all ospreys are members of a protected species, the lives of those which come from an SPA are of greater value than those living elsewhere.

As with visual impact and noise, the inquiry report considers issues relating to ornithology in terms of their policy or legislative relevance, which is very different from the way that the issues were viewed by the authors of objection letters. Equally, by changing the focus from whether birds are likely to be injured or killed by the development to whether birds which might be injured or killed come from the SPA, the inquiry has served to remove the significance or relevance of objectors' concerns. Just as it was taken as an assumption that negative visual impact would occur, so it appears to be taken as an assumption that birds may be at risk of collision, but by moving the focus away from the likelihood of this occurrence concerns thereof are made less legitimate.

Traffic and Roads

Issues relating to perceived negative effects on the local roads and traffic during the construction phase of the development were major issues within the objection letters, however, this topic was summed up and dismissed within a quarter of a page (one paragraph) in the inquiry report's conclusions. Thus it appears that a topic which was of great concern to objectors was given little consideration within the inquiry.

Objectors referred to commonsense to suggest that local villages, and the businesses and people therein, would be negatively affected by the construction of the wind farm. Objection letters frequently made reference to individuals' past experience of using the local roads and their own intimate knowledge of the proposed transportation route to suggest that it was "inevitable" that transporting large turbine components on the necessary size of vehicle would cause significant disruption and damage. Moreover, concerns were raised not only that transportation would not be possible or would cause damage, but also that if road alterations were carried out in order to facilitate construction traffic the character of the road would be lost. As such, it is not just issues of negative impacts on local transport or even of physical damage being caused by the construction traffic, but also anxieties over losing the inherent value of the road which are expressed within objection letters. This value assigned to the road is unquantifiable and comes from highly subjective, even emotive, assessments based on individuals' experiences of using the road. In many instances it appears that the value which parts of the road hold comes precisely from the fact that they have not changed for many years, thus alterations to these parts of the roads (i.e. widening or strengthening narrow bridges) is a direct threat to what is deemed important to the character of the road.

The ‘expert’ discussions of transport and roads within the inquiry report, focussed on more quantifiable aspects for example the ability of long vehicles to negotiate a particular corner of the road and the safety measures which would be put in place to ensure that accidents did not occur. The inquiry report stresses that the developers would have the means to ensure that the construction phase took place with minimum disruption, and as such it was acknowledged that some road alterations would need to be carried out.

Thus, as far as the inquiry is concerned the relevant questions relate to whether or not it is physically possible for the construction traffic and turbine components to travel to the development site. So long as there is no significant likelihood of accidents then it is deemed acceptable, moreover “localised road alterations” are considered as necessary and insignificant aspects of the development. Local concerns over the character of the road are not considered within the inquiry report. Consequently, it appears that this topic represents another area where the inquiry did not consider the nature of local people’s objections and did not engage with objectors’ real concerns. Instead the inquiry focussed on objectively measurable issues which could be proved through technical assessments and ‘expertise’, and stayed away from subjective issues such as the character and value which the road possessed for local people.

Policy

The inquiry report included a ten page section (before the review of evidence) about renewable energy policy (both national and local). Further, and as has been made clear in the above discussion, throughout the inquiry report policy and legislation were frequently

referred to in reaching conclusions with regards to different topics covered within the inquiry. Thus policy had an unmistakably influential role within the inquiry and a primary focus of the reporter was to establish whether or not the proposed development accorded with national policy on renewable energy development. Furthermore, from the above discussion it is evident that this emphasis on being in accordance with policies overshadowed the need to fully reflect the interests and concerns of the local community.

In this way policy and local issues were kept separate, and moreover objectors – predominantly local people – were prevented from engaging with policy matters. Policy was seen to be uncontroversial and questioning it was both inappropriate and unnecessary.

The task of the [reporter] is to apply existing and well known policies to particular local facts. Judgements have to be made but the purpose of the inquiry is not to evaluate the policies themselves.

(O’Riordan et al 1988: 51)

However, Wynne (1982) notes that inquiry outcomes not only reflect or respond to existing policies but also shape future policy. Thus, whilst public inquiries are formally expected to serve the purpose of implementing policy objectives without challenging or debating the policies, where the development in question is of more than local significance the policies become problematic and controversial (Wynne 1982). He contends that the details of policies cannot be kept apart from issues related to their local application. Individual energy developments have implications for future policy and technology development. Inquiry outcomes therefore not only implement policy goals but also shape how these are interpreted, developed and implemented in the future. Thus the policy – not only the ‘local facts’ – ought to be considered within the public inquiry. Wynne (1982) argues that such issues can be easily overlooked where the subject of a

public inquiry is a conflict between local private interests and where representatives of the state can act as “impartial arbiters” (*ibid*: 54). However, where the subject is of national significance and the topic of key government policies (as renewable energy is) then the impartiality of the state becomes questionable and the policies governing the inquiry process require closer scrutiny.

Despite the influential role that policy played within the inquiry, this was the only topic which could not be challenged or questioned. National policy relating to renewable energy was ‘untouchable’ and its merits were taken for granted. As such the inquiry operated under a set of presumptions which included that the targets set for electricity produced from renewable sources were appropriate and that meeting these was of great importance, and moreover that wind power was an appropriate development suitable for deployment within Scotland. However, these were not necessarily presumptions which all parties agreed with. As Devine-Wright and Devine-Wright (2006: 244) have observed: “There is now a proliferation of diverse civic organisations openly contesting or supporting the legitimacy of government policy for renewable energy generally and wind energy particularly”. Thus, many objectors may have strongly disagreed with the government’s renewable energy policy. This was addressed in the following excerpt from the inquiry report:

“As the parties were advised in advance of this inquiry, challenges to the merits of government policy are outwith the remit of the inquiry. I take no account of such comments as were made on the merits of government energy policy”.

Through this ‘untouchable’ status policy has become an omnipotent justification for upholding the appeal, and importantly this is an accepted fact within planning policy and appeal guidelines (O’Riordan et al 1988). Clear boundaries exist as to what is acceptable

and admissible within the inquiry and arguments which fall outside of these boundaries are simply dismissed. However, such boundaries do not exist naturally but rather are constructed and reinforced within each inquiry (Wynne 1982). Furthermore, inquiries maintain legitimacy by creating the illusion of being objective ‘fact-finding’ exercises, however, this illusion conceals a number of subjective value-judgements which are necessary in order to reach a decisive outcome (O’Riordan et al 1988, Wynne 1982). Indeed, the very act of determining which issues are to be included within the inquiry debate and which are irrelevant or inappropriate requires subjective judgements and interpretation of policies. As set out in the Scottish Town and Country Planning Appeals Rules (1997) “any evidence may be admitted at the discretion of the appointed person [i.e. the reporter]” (19:6), yet such subjective judgements are concealed behind a veil of supposed objectivity.

Wynne (1982) contends that public inquiries represent exercises in social control. This implicit role of the appeals process is identified in the ways by which the public’s contribution and role is controlled and restricted, and by the requirements placed on participants within the inquiry. They are required to present their evidence in specific ways, using a particular type of language and addressing a problem which has been deliberately defined in narrow terms (Wynne, 1982). Individuals must express themselves in accordance with accepted knowledge and by reference to certain types of ‘facts’. Furthermore, public inquiries have been described as operating with “an inflated image of scientific objectivity” which requires evidence to be presented in the language of ‘scientific facts’ and reasoning and thus creates obstacles for ‘lay’ participants (Yearley 2005).

The unquestionable nature of policy within public inquiries can also be seen as a means of restricting the range of possible arguments that participants can make and further as defining a set of “rational” assumptions underpinning the inquiry. Consequently, individuals (or types of evidence) that challenge or deviate from this set of assumptions can be easily disregarded.

In this case the ‘untouchable’ status enjoyed by the UK’s renewable energy policy meant that the 716 comments within the objection letters which referred to issues relating to ‘Wind Power Technology’ as a whole (for example as being unnecessary, inefficient, inappropriate, unreliable or overly subsidised) would have been viewed as opposing national policy and as such were not able to be expressed within the inquiry. The evidence of any inquiry participant who attempted to raise such issues would have been straightforwardly dismissed.

CONCLUSIONS

This paper began by reviewing the existing literature concerned with public responses to wind power developments, it was noted that much of this literature suggests that local opposition from members of the public towards particular proposed wind power developments presents serious obstacles to the growth of this technology and thus to the meeting of Government energy targets. However, Toke’s (2005a, 2005b) argument that actual planning approval rates for wind power developments are in fact high, especially in Scotland, suggested that local opposition may not be as influential as the literature suggests.

This case study has shown that the realities of objectors' experiences are likely to confer with Toke's position. In this case it appeared that the power which the local opposition campaign group possessed stretched only so far as delaying the eventual outcome, but did not extend to influencing what that outcome was. As Bell et al (2005: 463) have noted; "The structure of the planning system may encourage 'oppositional' participation but planning policy and government support for wind energy may make successful opposition increasingly difficult". In this case objectors were able to effectively express their concerns within the local planning system and as such to have the planning application refused, however the result of this refusal was an appeals process which served to marginalise the very concerns which had brought it about.

If one considers the arguments presented here in line with the one-dimensional view of power (i.e. according to the outcomes of the formal decision-making process), it would appear that the objectors had little or no power. However, by considering Luke's (1974 [2004]) three-dimensional view of power some alternative perspectives are possible.

It cannot be denied that the opposition campaign group exerted significant influence up until the point of the public inquiry, and as such were powerful actors in the early planning application process. An observable outcome of this was that the approval which was eventually secured by the developers was significantly delayed and the process cost the developers (and planning bodies) considerable time and money. Thus, the campaign group might be considered to have exercised covert power in ensuring negative consequences for the developers as well as creating negative publicity about the development, and wind power generally. The campaign group's publicity may have

influenced other members of the public's views about wind energy and could potentially have negative consequences for future developments. It may also be envisaged that such costly delays and negative publicity might influence future prospective developers either by making them reluctant to construct wind farms or to be sensitive and responsive to the campaign groups' arguments.

It is interesting to note the role of the proforma cards in re-shaping the nature of objections. This may be perceived to have contributed to the prioritising of 'objective' issues, and might be viewed as an example of agenda-setting power. However, this can alternatively be taken to represent an example of how the objectors acted in accordance with covert power exercised within the planning process. As Luke's (1974 [2004]) set out the three-dimensional view of power acknowledges the power to shape people's beliefs and ideologies. In this case we can see that objectors' beliefs about what constituted 'appropriate' objections were in line with those set out in the planning system.

The three-dimensional view of power is extremely interesting when used to examine the power present within the planning system and policies themselves. In line with Wynne's (1982) argument that public inquiries represent exercises in social control, considerable power is exercised in the setting of boundaries within the planning system. For example, the role of members of the public is severely constricted by setting limits as to what is 'acceptable' evidence to be presented within the inquiry and by favouring 'expert', technical knowledge over that of 'lay' people. Furthermore, the safeguarding of policies as beyond challenge is a clear exercise of agenda-setting power. Thus, one does not need to look at the outcomes to see that power is predominantly found in the hands of

the decision-making elite, as opposed to the public participants within decision-making processes.

Given the considerable sums of money involved in planning the wind farm, and the years which had already been spent preparing the planning application, it was unlikely that the developers would not appeal against the decision to refuse planning permission. As such, it was inevitable that if the proposal was not approved at the local authority level that there would be an appeal. However, since appeals are determined by Scottish Executive officials one must question whether, given the policy commitments to increasing renewable energy, there is a conflict of interests between favouring renewable energy developments and considering local views (especially when these are in opposition to the development). As noted by Wynne (1982), some scepticism must be expressed as to whether the state can act as an “impartial arbiter” in areas of conflict where it has clear vested interests. Currently, the system appears to be set up in such a way as to limit the role and power of local objectors. In particular, the emphasis on policy and legislation within the public inquiry system makes it extremely difficult for opponents to effectively question or challenge the merits of a development, since the fundamental question as to whether or not the development is necessary or appropriate is not permitted. This also makes it likely that individuals who oppose the development based on their awareness of debates around wind power technology or energy policy will instead justify their objection via grounds which do not truly reflect the nature of their concerns. As such planning rules serve to effectively limit the contribution of members of the public and the public inquiry is inevitably unable to provide a full picture of the issues relating to the planning application. Further, this analysis challenges the view often

expressed in the extant literature that opposition groups are a major factor in the failure to meet wind power development targets. The data presented here suggest that in fact opposition groups can slow down, but not stop, wind farm planning applications.

NOTES

¹ Since this public inquiry took place SEIRU has been renamed as The Directorate of Planning and Environmental Appeals.

The ‘reporter’ assigned to any appeal is appointed by Scottish Ministers, and oversees the running of the inquiry – managing the process and subsequently determining the outcome – effectively they act as judge and jury within the appeal.

REFERENCES

Bell, D., Gray, T. & Haggett, C., 2005, ‘The ‘Social Gap’ in Wind Farm Siting Decisions: Explanations and Policy Responses’ *Environmental Politics* 14(4): 460-477

Brennand, T., 2004, ‘Renewable energy in the United Kingdom: policies and prospects’ *Energy for Sustainable Development* 8(1):82-92

Breukers, S. & Wolsink, M., 2007, ‘Wind power implementation in changing institutional landscapes: An international comparison’ *Energy Policy* 35(5): 2737-2750

Devine-Wright, P., 2005, ‘Beyond NIMBYism: towards an Integrated Framework for Understanding Public Perceptions of Wind Energy’ *Wind Energy* 8:125-139

Devine-Wright, P., 2007, *Reconsidering public attitudes and public acceptance of renewable energy technologies: a critical review* Working Paper 1.4 at http://www.sed.manchester.ac.uk/research/beyond_nimbyism/deliverables/outputs.htm

Devine-Wright, P. & Devine-Wright, H., 2006, ‘Social representations of intermittency and the shaping of public support for wind energy in the UK’ *International Journal of Global Energy Issues* 25(3/4): 243-256

DTI, 2006a, *The Energy Challenge: Energy Review Report 2006* www.berr.gov.uk

DTI, 2006b, *UK Energy Sector Indicators 2006* www.berr.gov.uk

Ebert, P.R., 1999, “‘Stakeholder Management’ Ignore it and your wind farm may never happen’ *Proceedings of the 1999 Australian Wind Energy Conference* pp44-50 available at <http://www.daws.com.au/Downloads/Papers.html>

Ellis, G., Barry, J. & Robinson, C., 2007, ‘Many ways to say ‘no’, different ways to say ‘yes’: Applying Q-Methodology to understand public acceptance of wind farm proposals’ *Journal of Environmental Planning and Management* 50(4): 517-551

van der Horst, D., 2007, ‘NIMBY or not? Exploring the relevance of location and the politics of voiced opinions in renewable energy siting controversies’ *Energy Policy* 35(5): 2705-2714

Krohn, S. & Damborg, S., 1999, 'On Public Attitudes Towards Wind Power' *Renewable Energy* 16:954-960

Lukes, S., 1974 [2nd ed. 2004], *Power: A radical view* Palgrave Macmillan

O'Riordan, T., Kemp, R. & Purdue, M., 1988, *Sizewell B: An anatomy of the inquiry* Macmillan Press

Peel, D. & Lloyd, M.G., 2007, 'Positive Planning for Wind-Turbines in an Urban Context' *Local Environment: The International Journal of Justice and Sustainability* 12(4): 343-354

Scottish Town and Country Planning Appeals Rules, 1997, available at www.oqps.gov.uk

Strachan, P., Lal, D. & von Malmborg, F., 2006, 'The Evolving UK Wind Energy Industry: Critical Policy and Management Aspects of the Emerging Research Agenda' *European Environment* 16: 1-18

Toke, D., 2002, 'Wind Power in UK and Denmark: Can Rational Choice Help Explain Different Outcomes?' *Environmental Politics* 11(4): 83-100

Toke, D., 2005a, 'Explaining wind power planning outcomes: some findings from a study in England and Wales' *Energy Policy* 33(12): 1527-1539

Toke, D., 2005b, 'Will the Government Catch the Wind' *The Political Quarterly* 76(1): 48-56

Toke, D., Breukers, S. & Wolsink, M., 2008, 'Wind Power Deployment Outcomes: How can we account for the differences?' *Renewable and Sustainable Energy Reviews* Forthcoming

Walker, G. & Devine-Wright, P., 2008, 'Community Renewable Energy: What should it mean?' *Energy Policy* 36: 497-500

Wolsink, M., 2000, 'Wind power and the NIMBY-myth: institutional capacity and the limited significance of public support' *Renewable Energy* 21:49-64

Wolsink, M., 2007a, 'Wind power implementation: The nature of public attitudes: Equity and fairness instead of 'backyard motives' *Renewable and Sustainable Energy Reviews* 11(6): 1188-1207

Wolsink, M., 2007b, 'Planning of renewables schemes: Deliberative and fair decision-making on landscape issues instead of reproachful accusations of non-cooperation' *Energy Policy* 35(5): 2692-2704

Woods, M., 2003, 'Conflicting Environmental Visions of the Rural: Windfarm Development in Mid Wales' *Sociologia Ruralis* 43(3): 271-288

Wynne, B., 1982, *Rationality and Ritual: The Windscale Inquiry and Nuclear Decisions in Britain* British Society for the History of Science

Yearley, S., 2005, 'Bog Standards: Contesting Conservation Value at a Public Inquiry' in S. Yearley (ed.) *Cultures of Environmentalism: Empirical Studies in Environmental Sociology* Palgrave Macmillan

Table 1: Categories of Objection

Code	Categories of Objection Issues
A	The wind turbines
B	Wind power technology
C	Traffic and roads
D	Tourism
E	Ornithology
F	Impact on individuals/families
G	Archaeology
H	Environmental degradation
J	Planning process
K	Community fund
L	Renewables policy
M	Other

Table 2: Frequency of categories of issues within objection letters

Code	Theme	Number of mentions	% of total mentions
E	Ornithology	2228	17.97
C	Traffic and roads	1814	14.63
A	The wind turbines	1749	14.11
H	Environmental degradation	1729	13.95
F	Impact on individuals or families	1671	13.48
D	Tourism	1153	9.30
G	Archaeology	1105	8.91
B	Wind power technology	716	5.78
J	Planning process	138	1.11
M	Other	69	0.56
K	Community fund	12	0.10
L	Renewables policy	11	0.09

Figure 2: Number of pages dedicated to each topic within the official inquiry report's overview of topics covered at the inquiry

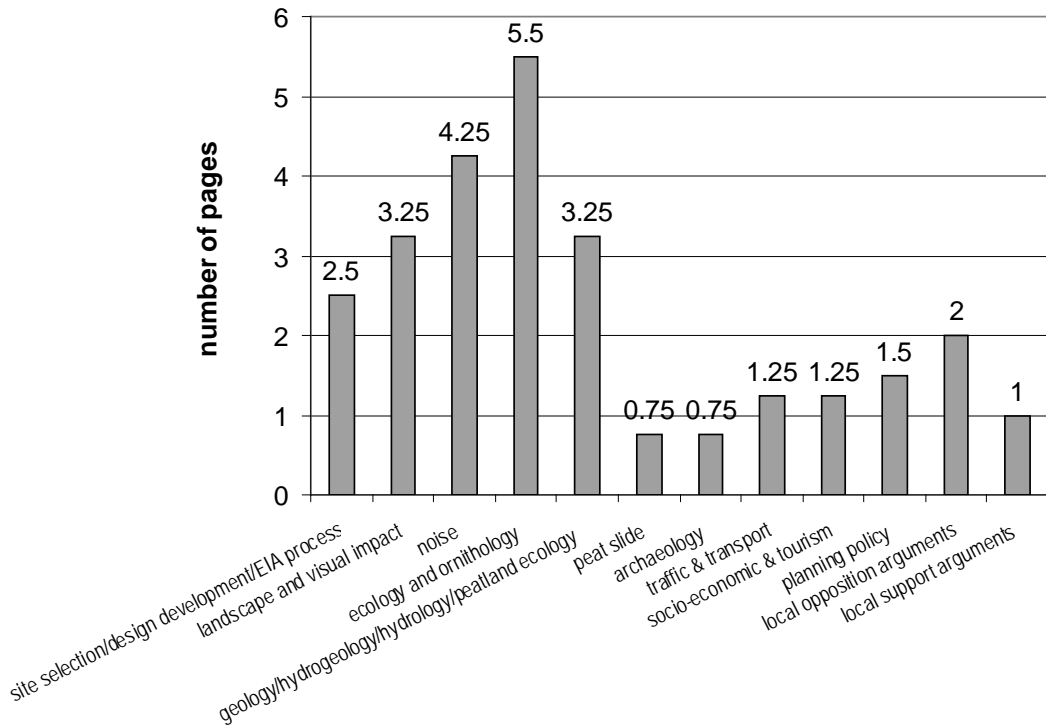


Figure 3: Number of pages dedicated to each topic within the conclusions of the official inquiry report

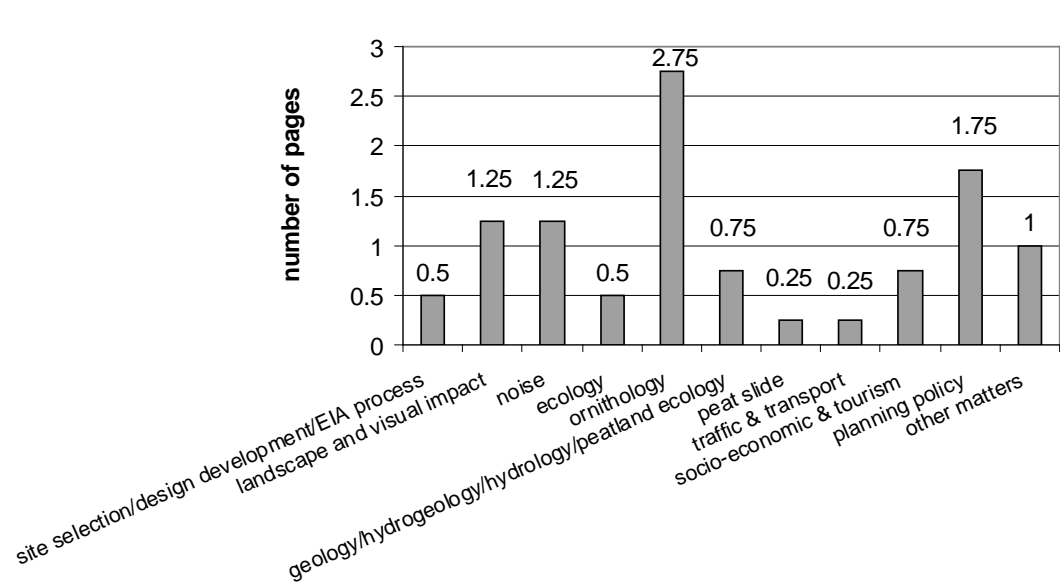


Table 3: Prioritised issues within objection letters, the inquiry report's summary of evidence and the inquiry report's conclusions

SOURCE	1st Priority	2nd Priority
Individual Objection Letters	The Wind Turbines (<i>i.e.</i> visual impact and size)	Traffic and Roads
Objection Letters (overall)	Ornithology	Traffic and Roads
Inquiry Report – Summary of Evidence	Ecology & Ornithology	Noise
Inquiry Report - Conclusions	Ornithology	Planning Policy

APPENDIX 1

Full list of Categories and Codes used in the Thematic Content Analysis of

Objection Letters

a the wind turbines

- a1 noise
- a2 visual impact
- a3 scale/size of structures
- a5 cumulative effect (i.e. with other locally proposed wind farms)
- a6 number of turbines
- a7 won't stand up to storms
- a8 block emergency services communications
- a9 decommissioning
- a10 shadow flicker

b wind power technology

- b1 wind power is unreliable (no constant wind)
- b2 wind power is inefficient (in terms of energy generation)
- b3 wind power is expensive/subsidised
- b4 it will not reduce greenhouse gas emissions (i.e. carbon dioxide)
- b5 consideration of energy used during construction processes
- b6 Scotland is already self-sufficient in energy supply/ has an excess of energy/ renewable energy developments are unnecessary in Scotland
- b7 Scotland's energy supplies England/ wind farms should be located in England
- b8 short-term or little gain and/or long-term damage
- b9 represents a superficial solution
- b10 no evidence of continued viability
- b11 money-making exercise for private companies
- b12 should be located offshore
- b13 alternatives, (i.e. solar/nuclear/wave power or energy conservation)
- b14 conventional (fossil-fuel) power stations would still be needed
- b15 needs improved
- b16 Scotland is serving as a guinea-pig
- b17 money-making exercise for land-owners
- b18 miscellaneous quote regarding Scotland

c traffic and roads

- c1 alternative route is more suitable
- c2 widening the road will increase road speeds
- c3 widening the road will increase risk/incidence of accidents
- c4 the widening process will cause hold ups (i.e. for commuters and school bus)
- c5 widening the road will increase traffic volume
- c6 widening the road will create 'rat runs'
- c7 widening the road will bring strangers to the area
- c8 widening the road will destroy the red squirrel habitat
- c9 widening the road will mean destroying/cutting back mature roadside trees
- c10 widening the road will increase danger to non-car road users (i.e. walkers/cyclists/horse-riders) in the country
- c11 construction traffic will increase danger to pedestrians in [local town]
- c12 construction traffic will cause traffic jams in [local town]

- c13 construction traffic will slow down emergency services
- c14 construction traffic will increase parking in residential areas in [local town]
- c15 construction traffic will damage roads/bridges/the church wall
- c16 construction traffic/increased traffic on new road will kill more hedgehogs/deer/squirrels
- c17 construction traffic will be damaging for businesses in [local town]
- c18 the road would need to be restored to its current size/shape/beauty after construction
- c19 could components be airlifted to site?
- c20 personal user of road on a daily/regular basis – concerned about disruption
- c21 other
- c22 construction traffic will cause a nuisance/inconvenience/disruption to local residents
- c23 increased traffic on the road will cause more accidents

d tourism

- d1 job losses
- d2 visitors will be less likely to return if the natural beauty of the area is spoilt
- d3 the wind farm would be visible from the [A road] tourist route
- d4 the [local walking trail] would be adversely affected
- d5 the wind farm would negatively affect local income from tourism

e ornithology

- e1 damage to feeding or nesting sites
- e2 physical harm from turbines
- e3 osprey
- e4 black grouse/blackcock
- e5 plovers
- e7 other raptors
- e8 geese
- e9 owls
- e10 hen harriers
- e11 other bird species

f impact on individuals/families

- f1 reduction in property value
- f2 property unsaleable
- f3 loss of TV signal
- f4 stress of the planning process
- f5 ruined views
- f6 reduced quality of life
- f7 negative effect on livestock
- f8 pollution of private water supply (quality)
- f9 reduction in private water supply (quantity)
- f10 damage/risk to private water supply (uncertainty)

g archaeology

- g1 historic battle sites
- g2 ancient monument
- g3 stone dykes
- g4 prehistoric settlement

h environmental degradation

- h1 peat bogs
- h2 red squirrel colony
- h3 local protected area

- h4 wildlife habitat
- h5 Scotland has unique beauty
- h6 the site is near to an important garden
- h7 the area is beautiful/unspoilt/peaceful/a wilderness
- h8 there is always more environmental damage than anticipated/calculated
- h9 the area is already spoilt/over-developed
- h10 effects on wildlife (i.e. animals)

j the planning process

- j1 no traffic surveys have been conducted
- j2 community council has been too slow to object
- j3 individuals have had no formal notification from planners
- j4 registration has been backdated
- j5 planners are not critical of UK policy/the claims made for wind power
- j6 the Environmental Statement is a whitewash
- j7 nothing else would be allowed to be built on a site like this
- j8 waste of planning and administrative resources
- j9 local residents have not been given an opportunity to understand the issues or debate them publicly
- j10 lack of adequate research into wind speeds
- j11 remaining doubts in environmental statement over water supply
- j12 a large number/the vast majority of residents are against the proposal
- j13 proposal brought in at a time when most people are busy/away on holiday
- j14 council-developer interactions
- j15 criticisms of techniques used by the developer (i.e. in assessing noise levels or drafting the environmental statement)
- j16 criticisms of techniques used by the council

k community fund

- k1 more appropriate to compensate individuals
- k2 no real community
- k3 should not be apportioned by the Council
- k4 people affected by the wind farm won't benefit
- k5 community funding equates to bribery

l renewables policy

m other

- l1 low flying aircraft will be affected/present hazard
- l2 used to be a firing range – danger from shells
- l3 plea to councillors
- l4 opposing other developments as well
- l5 no demonstrable benefit
- l6 there should be a regional/national strategy
- l7 location, (i.e. proximity to the boundary of a National Park)
- l8 legitimising/claim to credibility (i.e. long-term resident/expert knowledge/regular visitor)
- l9 local concerns treated with contempt (by developers)