

All Froth and No Substance

(A survey of lots of people who do not live close to a wind site)

A VIEWS OF SCOTLAND analysis of the
Scottish Executive survey:

Public Attitudes to Windfarms: A Survey of Local Residents in Scotland

(September 2003)

Contents

The political context	3
Introduction	3
Dilution by distance	3
More sampling errors	4
Conclusion	4
Footnote	4
Appendix I – Flaws in every chapter	
Attitudes to the area in which respondents lived	5
Impact	5
Anticipated and actual problems	5
Exploration of specific issues	5
Noise from turbines	6
Interference with TV and radio	6
Environmental or ecological effect	6
House prices	6
Other economic factors	6
Disturbance during construction	6
Attitudes to future generation	6
Attitudes to expansion of the local site	7
Information and consultation	7
Conclusions	8
Appendix II – Conclusions refuted	9

The political context

In August 2000, the Scottish Executive published a lengthy report on a survey researching local attitudes towards the four wind power stations then operational in Scotland.¹

It was instrumental in formulating policy on ‘renewables’ and in the re-drafting of key planning policy papers NPPG6 and PAN45; it was frequently quoted by the media and widely used by wind-power developers liaising with planning authorities; it was hailed by New Labour politicians seeking kudos for ‘green’ energy policies and was quoted in the Cabinet Office paper, *The Energy Review*.

It took a VIEWS OF SCOTLAND researcher to point out that the area where most of the interviewees supposedly lived was all but uninhabited. The use of a wrong grid reference at the least-populated site meant that the majority of respondents lived 10-20 km from the site, not five km as reported. Although it was claimed, rather pathetically, that the error did not affect the results (it certainly did), the report and survey were quietly withdrawn and a new study commissioned.²

This was published in September 2003.³ Results were broadly in line with the first survey and the Executive’s energy policies were apparently vindicated anew.

VIEWS OF SCOTLAND has analysed this second report and concludes that it is as flawed as the first. It does not measure public opinion but seeks rather to mould it.

Introduction

Despite its title, the survey is neither a poll of ‘local’ residents nor does it attempt to measure any problems associated with living close to a wind site.

Polling was doubtless conducted in an exemplary fashion using industry best practice but it tested the perceptions of those who lived too far from sites to make an informed response. People genuinely living close to wind sites know to their cost that perception and experience tend to be quite different.

If the research was constrained by the small number of sites currently operational in Scotland, the comparatively few people living near them and, in some cases, the relative obscurity of the sites, this could have been overcome by a face-to-face survey at each of the 3,000 households genuinely close to turbines. An intelligent scientifically-based survey of problems associated with on-shore wind would be invaluable in informing the current debate.

Dilution by distance

The Executive chose instead to question one per cent of households, in three proximity zones, within 20km of wind sites. Responses were then weighted in proportion to the total number of people living in each zone. About three-quarters of those identified either chose not to participate, or were out, so the final weighted response numbers were:

Within 0-5km (0-3 miles)	35
Within 5-10km (3-6 miles)	164
Within 10-20km (6-12 miles)	1611

Anything less likely to reveal actual problems is hard to imagine. The perceptions of the 90 per cent of respondents who lived 10-20km away are irrelevant while the experiences of those living close to sites have simply not been properly examined.

The failure of the Executive to commission a meaningful survey is to be regretted, especially since there are now proposals for sites ten times the size of those in the survey, some with turbines 400 metres from people’s homes.

¹ *Public Attitudes Towards Wind Farms in Scotland: Results of a Residents Survey*, Scottish Executive, Central Research Unit, August 2000.

² See *Scotland’s Landscapes – England’s Windfarm?* on www.viewsofscotland.org for the full analysis of the flawed survey.

³ *Public Attitudes to Windfarms: A Survey of Local Residents in Scotland*, Scottish Executive, September 2003.

It is particularly worrying in the light of recent press reports highlighting research by a GP in Cornwall into patients living near a wind power site. She identified a number of alarming health issues allegedly associated with turbine noise.⁴

More sampling errors

The Executive's first survey was withdrawn due to sampling errors.

Because eight out of the ten operational sites are in clusters, some proximity zones overlap substantially. It is therefore probably impossible to identify a random population sample without selecting respondents who live simultaneously at more than one site. Nevertheless, the Executive chose this route.

Repeated requests have produced no satisfactory explanation of how it was ensured that no respondents lived closer to a different site than the one at which their responses were recorded.

In an apparent effort to test the validity of the sample, respondents at eight of the sites were asked which one was closest and how far they lived from it. The data show that many people said they lived at a site or zone which was not the one to which they had been assigned and for which their responses were recorded. They were not reassigned.

So we cannot but conclude that the sampling technique is flawed. Indeed, flawed sampling might explain some of the anomalies in the survey such as people designated as living from 10 to 20km from the site who nevertheless reported disturbance from turbine noise.⁵ This raises valid queries about the integrity of the data.

One of the report's conclusions is that 54 per cent of respondents would support a 50 per cent increase in the number of turbines. But they were asked, '... would you support ... increasing the number of turbines at the windfarm by <insert figure representing fifty per cent increase on existing number of turbines>?'⁶

If respondents were not assigned to the nearest site, interviewers could have suggested an increase of e.g. four turbines when the nearest site comprised 46 – an increase of only ten per cent. The conclusion is invalid.

Conclusion

Once again, the sample is fatally flawed: the data are not robust and the survey's conclusions are meaningless within the context of its aims.

It should perhaps be re-named *All Froth and No Substance – a survey of lots of people who do not live close to a wind site*. An attempt to use its upbeat findings in support of new applications – where thousands of people may live in much closer proximity than those surveyed – would verge on deception.

The Executive must withdraw this second report. It must, at the very least, conduct a proper literature review of European studies on the effects on residents of turbine proximity and fund an independent face-to-face survey into the experiences of one person from every household within five km of every wind site in Scotland.

A Footnote

A disclaimer, not considered necessary in the first (discredited) survey, precedes the report. It says the views expressed are those of the researcher and not necessarily those of the Social Research Department or Scottish Ministers.

This is unacceptable. The Executive cannot commission a survey, brief a polling organisation on its requirements, publish the survey in its own name – together with an upbeat pamphlet summary that omits the disclaimer – and then deny responsibility. The criticisms we make are not aimed at any individual or organisation except the Energy Policy Unit of the Executive which commissioned the poll.

⁴ Articles appeared in several papers including the *Sunday Telegraph* of 25 January 2004.

⁵ While VIEWS OF SCOTLAND has anecdotal evidence that noise nuisance is significant at distances greater than is generally acknowledged, no study we are aware of suggests that it extends to over 10km.

⁶ Quoted from the questionnaire as supplied by the Scottish Executive

Appendix I – Flaws in every chapter

In many cases it is difficult, if not impossible, to correlate claims made in the report with the questions the survey asked or the data it obtained. Reactions from respondents reflect not only the ambiguity of some of the questions but the fact that an overwhelming majority lived so far from the turbines.

Attitudes to the area in which respondents lived

The report suggests respondents lived in rural areas ‘close’ to the sites, ignoring the fact that 90 per cent were polled between 10 and 20km away, many in urban areas. For example, it makes misleading comments like, ‘rural isolation has its drawbacks as 20 per cent dislike the lack of amenities’ while failing to mention that 18 per cent said they *like their good amenities* [our italics].

Its claim that ‘people who live within 20 kilometres of Scotland’s windfarms often live in remote and widely dispersed communities’ is also wrong. According to Scottish Executive figures, there are almost 170,000 households within 20km of the ten sites polled – eight per cent of Scotland’s population.

Impact

Only 12 per cent of respondents could see turbines from their homes, over half saw them only when travelling in the wider area and 20 per cent never saw them.

With perhaps a subconscious whiff of guilt that so many respondents lived so far from the sites, the report states: ‘once reminded ... that there is a windfarm nearby [sic] and asked what they think its impact has been, of those that [sic] do pass comment, three times as many say they feel the windfarm has had a positive impact.’

Three of the sites are close to Campbeltown, where 200 people assemble wind turbines in a Danish-owned plant providing significant local employment. People were unlikely to choose ‘negative’ when the jobs had brought a measure of prosperity to the area.⁷

Three more sites are close to Europe’s largest open-cast coal mine, which respondents cited as a bad thing about their area.⁸ Perhaps it is not surprising they were more sanguine about the wind sites.

Anticipated and actual problems

Anticipated and actual problems can only accurately be compared by contemporaneous studies. The sites were built between three and eight years ago. It is impossible to expect people accurately to remember over such a period. This is acknowledged in the chapter on consultation but forgotten here when the Executive needs a ‘before’ and ‘after’ comparison.

Respondents were asked what they anticipated would be a problem before the site was built (or before they moved there) and what actually turned out to be a problem. They could only choose problems suggested by the interviewer.

Comparisons are made between those who lived in their homes before the site was built and those who moved in later. The responses of the 14 per cent who ‘didn’t know’ whether the site had been built before or during the time they lived there were arbitrarily excluded so we do not know what those 250 may have reported as actual problems.

Exploration of specific issues

The objective of the survey was to establish the views of local residents by exploring a number of specific issues: visual impact, noise from turbines, interference with television and radio, environmental or ecological effect, impact on house prices and other local economic factors, disturbance during construction, consultation prior to construction and attitudes to the expansion of sites. Not an easy task in a ten-minute telephone poll.

Two-thirds of those issues were reduced to the limited-choice responses suggested by the interviewer in one ‘before’ and one ‘after’ question. They are dismissed in the report in less than 30 lines of text

⁷ Beinn an Turc, Deucharan Hill and Tangy

⁸ Hagshaw Hill, Harehill and Windy Standard

with two colourful but spurious charts. Responses on individual issues are reported only as an unreadable summary in a bar chart.

The following were the topics offered by the interviewer as possible or actual problems:

Noise from turbines

Experts agree that, depending upon local conditions, noise tends to be a problem up to approximately five km (three miles). At several sites nobody living within five km was interviewed. The accuracy of the data is suspect and suggests a flaw in the sampling: noise was reported by a number of those designated as living 10-20km away, one person designated as living 5-10km away but nobody designated as living 0-5km away.

Interference with TV and radio

Again the data seem counter-intuitive. One per cent of interviewees experienced problems with interference. Whilst there were several in the furthest zone and one per cent in the middle zone, there were none in the nearest zone.

Environmental or ecological effect

A weighty topic, worthy of some examination, is confined to the suggestion, 'Damage to plants or animals?'

This is well outwith the average person's ability to judge. Damage to birds and bats (which studies are increasingly showing to be at risk from turbines) was not a response option.

House prices

The report asserts that populations living close to wind farms are relatively stable with 'just' three per cent having moved into their homes within the last two years (compared to a claimed Scottish average of 20 per cent). Given that the sites sampled are between three and eight years old, it is difficult to see the relevance of the 'finding'.

Again, it is outwith the average person's ability to judge whether house prices had fallen. Interviewees were not asked if they had either put their houses up for sale or sought advice from estate agents.

Other economic factors

This is covered by the suggestion, 'damaging effect on local business?' which is hardly the same thing. There are few local businesses in most rural areas. In urban areas, a wind site within 20km is unlikely to affect sales in supermarkets or local manufactures.

Disturbance during construction

People living in the outskirts of Edinburgh were among those asked about construction of a site near Peebles.⁹ Responses from those who did have problems with it would have been well and truly buried by those who could not possibly have experienced them.

Attitudes to future generation

Respondents were asked whether coal-, oil-, nuclear-, wind- or wave-generated electricity should be increased, reduced or stay the same. Gas, hydro or other types of renewable generation were not response options.

Overall, 82 per cent said wind generation should be increased. Specifying whether this should be on-shore, off-shore or both was not an option. An 'increase' in wave-power (Scotland has no commercial-scale wave-power generation) was favoured by 69 per cent.

Clearly this is support for renewable energy in general. Given the partial list from which respondents could choose, there is no evidence to back the claim that onshore wind-power was preferred.

⁹ Dun Law

Next, interviewees were asked if the Executive's policy was to increase or decrease the proportion of electricity generated from the same list. A little over half thought wind- and wave-generation would be increased and a little under half thought coal-, nuclear- and oil- generation would be decreased.

The report concludes from this that public attitudes are broadly in line with Scottish Executive policy. This 'policy' appears in a footnote highlighting the Executive's commitment to renewables (including the six types omitted from the questionnaire). It also says that fossil-fuelled generation will have an important role to play for many years – without explaining that it is an *essential* back-up for wind.

Attitudes to expansion of the local site

The report's suggestion that respondents were asked whether they would support or oppose a 50 per cent increase in the number of turbines at their local site is incorrect.

Instead, they were asked about an increase of a specific number of turbines 'at the windfarm' (half the number at the site for which they formed part of the sample). Since many of them may have lived nearer to a different site, the number suggested could have been well below 50 per cent of the turbines at their nearest site.

They were not told that the extra turbines would significantly increase the area of the site, would perhaps bring it much closer to their homes or that the new turbines might be twice as high as the existing ones.

Nor, surprisingly, were they told that *plans were already in hand* to extend three of the sites.¹⁰

Information and consultation

This chapter starts with a note that the survey findings need to be viewed in the light of the fact that some of the sites were constructed 'several' years ago (actually between three and eight) and people were being asked to reflect back over a long period of time. This had, however, been conveniently forgotten in an earlier chapter which compared anticipated problems with those actually experienced. Respondents were not asked their opinion of the present planning process.

The questions use the word 'consultation' inappropriately and served to mislead respondents on the various responsibilities of developers and local authorities in planning matters.

Although planning applications must be advertised in the local press and local representations invited, the developer is not required to consult local residents although a marketing exercise is generally conducted in local towns.

It is not necessary to use a publicly-funded survey to come to conclusions such as 'two-thirds of respondents are not aware of any consultation by the developer'.

Asking how, ideally, people should get information and express their views in future, 14 options were offered, few of which had anything to do with 'consultation' or allowed an expression of views. Forty-three per cent chose articles in the local paper and 33 per cent leaflets through the door.

From that the report draws two worrying conclusions. The first is that people were not dissatisfied with the very low level recall of any consultation.

- *Therefore, we are invited to conclude, respondents do not particularly want to be consulted.*

The second is that those who were dissatisfied with the consultation were more likely to prefer a leaflet through the door (the survey's syntax, not ours).

- *From the muddled way this is worded we are invited to conclude that people would rather receive a leaflet announcing a wind site than be a part of the present (however flawed) planning process.*

A cynic might wonder if these questions had anything to do with proposed revisions of planning law which seek to relax what little consultation obligations exist in order explicitly to make it easier for wind sites to be approved.

¹⁰ Dun Law, Novar and Windy Standard.

Conclusions

The 'chapter' on conclusions consists of 13 lines and contains major inaccuracies. No conclusions are drawn about the issues the survey was commissioned to explore.

First, the suggestion is repeated, again erroneously, that respondents lived in rural areas.

It is claimed that twice as many people think the sites had a positive impact as a negative impact: the data show that 75 per cent expressed no such opinion.

It is alleged that those living closest would be more likely to support a 50 per cent increase in the number of turbines. As we have shown, sampling anomalies and a lack of clarity in the question make this conclusion unsustainable.

The final conclusion, that support for wind power is overwhelming, has no foundation since respondents were unable to choose any other renewables option except wave-power which is not commercially operational in Scotland. It is like going into a polling booth and finding only one name on the ballot paper.

Appendix II – Conclusions refuted

Although the report contains only three formal conclusions (see above) many more assertions appear in the survey report and the Executive Summary. They are grouped below by subject.

Remoteness

People who live within 20 kilometres of Scotland's windfarms often live in remote and widely dispersed communities.

Elsewhere in the report it is reported that there are nearly 170,000 households within 20 kilometres of Scotland's ten wind power sites – eight per cent of the total population. The majority of those polled do not live in remote communities.

People living close to windfarms (within 20 km) like the areas they live in, mentioning the peacefulness (28%), scenery (26%), rural isolation (23%) and friendly people (20%) as particular strengths. When asked to say what the shortcomings are, most commonly mentioned are a lack of amenities (20%), poor public transport (18%), and lack of jobs (8%). Just five people (0.3%) spontaneously mention windfarms as a negative aspect of their area.

The existence of windfarms does not appear to be prominent in people's minds.

It is not surprising that a quarter of those polled chose 'rural' options: they were the only ones suggested. Lack of local amenities is no pointer to a rural respondent base: nearly as many people listed good local amenities as bad.

If the upbeat conclusions of the survey are robust one wonders why nobody apparently mentioned wind sites spontaneously as one of the 'good' things in their area.

Visibility

People living in zones closest to windfarms tend to have more positive views, even though they are more likely to see the turbines as they go about their everyday lives.

The data show that well over 50 per cent of those living nearest expressed no opinion. Since the Executive cannot provide an adequate explanation for sampling anomalies, no reliance can be placed on the validity of data for comparison by zone.

Many only see the turbines on their local site occasionally, for example when using the roads.

As might be expected when 90 per cent of those polled lived up to 20km away.

The most prominent long-term impact that people would consider is the visual effect on the landscape.

We hardly need a publicly-funded survey to tell us that. Visual effect would obviously have the biggest impact on those living 10-20km away.

Similarly, those who most frequently see the windfarms in their day-to-day lives tend to be most favourable towards them (33% of those who see the turbines all the time or frequently say the windfarms have had a positive impact on the area, while 18% of those who only see them occasionally say the same).

These data cannot be found in the report or in the Final Tabulated Tables supplied by the Executive and they cannot therefore be analysed.

Impact

People living closest to the windfarms tend to be most positive about them (44% of those living within 5km say the windfarm has had a positive impact, compared with 16% of those living 10-20km away)...

The phrase 'most positive' misleads. Respondents were asked if the site had a positive or negative impact on the area, not whether they felt positive or negative about it.

Since the integrity of the sample is questionable, no reliance can be given to comparisons by distance, but more than three-quarters of respondents expressed no opinion about impact.

Overall, however, twice as many people think the local windfarm has had a positive impact as think it has had a negative impact on the area.

Three times the number of residents say that their local windfarm has had a broadly positive impact on the area (20%) than say that it has had a negative impact (7%). Most (73%) feel that it has had neither a positive nor negative impact, or expressed no opinion.

This one obviously grows in the telling! The number expressing no opinion is 80 per cent not 73 per cent.

Three of the sites are close to Campbeltown, where 200 people assemble wind turbines in a Danish-owned plant providing significant local employment. People were unlikely to choose 'negative' when the jobs had brought a measure of prosperity to the area.

Three more sites are close to Europe's largest open-cast coal mine, which some respondents cited as a negative thing about their area.¹¹ Perhaps it is not surprising they were more sanguine about the wind sites.

Before and after

People who lived in their homes before the site was developed say that, in advance of the windfarm development, they thought that problems might be caused by its impact on the landscape (27%), traffic during construction (19%) and noise during construction (15%). However, only 12% say the landscape has been spoiled, 6% say there were problems with additional traffic, and 4% say there was noise or disturbance from traffic during construction.

Concerns, where they existed, that the construction of a windfarm would have a damaging impact have largely not materialised, according to local people.

Nearly 90 per cent of those polled lived between ten and 20 kilometres from the site. All were asked to think back between three and eight years and such memories, as is pointed out elsewhere in the report, are very unreliable. The analysis disregarded any perfectly valid problems experienced by the 14 per cent (250) of people who did not know whether they lived in their homes before the site was built.

Expansion

There is substantial support for the idea of enlarging existing local windfarm sites, particularly if the increase in the number of turbines involves the addition of not more than 50% of the existing number. A majority (54%) would support an expansion of their local site by half the number of turbines again, while one in ten is opposed (9%). Support drops somewhat if the proposal is to double the number of turbines. In this case, four in ten would be in favour (42%) and one in five (21%) would be opposed.

The phrase '50 per cent' is misleading. Since the integrity of the sample is suspect, it is quite possible that the number of turbines suggested to some respondents was far below 50 per cent of those on their nearest site. It was not explained to respondents that the provision of extra turbines would increase the area of the site by half, perhaps bringing it much closer to their homes and they were they not told that new turbines might be twice as high.

Nevertheless 47 per cent did *not* support expansion.

They [people living in zones closest] are also more likely than others to support the idea of an expansion by 50 per cent of the number of turbines on the site.

Since the Executive is unable adequately to explain that problems with the sampling technique were overcome, comparisons by zone must be suspect.

... They [people living in zones closest] are also most supportive of expansion of the sites (65% of those in the 5km zone support 50% expansion compared with 53% of those in the 10-20km zone).

See above. The claim that they supported the 'expansion of sites' is untrue. Respondents were asked about an increase in the number of *turbines* and it is possible that a figure far below 50 per cent was suggested to some. Neither were they told that an expansion of the number of *turbines* would entail substantially increasing the area of the site.

Support for the principle of an expansion of electricity generation using windpower is overwhelming among people living within 20 kilometres of an existing site.

¹¹ Dalquhandy, since closed.

The data do not support this claim. The only renewables respondents were offered the choice of expanding were wind- and wave-power (of which there is none in Scotland). The survey provides no evidence that wind generation has more support than any other renewable.

Increase/decrease

While many say that they feel that nuclear, coal and oil generation should be reduced, clear majorities favour increasing the proportion of electricity generated through wave (69%) and wind energy (82%). Although around a third say they do not know what the Scottish Executive's policy is regarding these methods of electricity generation, the most common views are that the use of wind energy is to be increased (66% believe this is the Scottish Executive's policy), as is wave energy (52%). Many believe that coal (46%), nuclear (44%) and oil-fired generation (35%) are to be reduced.

The choice-list of generation methods was extremely partial: gas and hydro were not options: neither was any form of renewable other than wind and wave. Respondents were not told that wind energy needs constant back-up from fossil-fuelled generation (although this is obliquely alluded to in a footnote to the report) nor that there are no wave-generation sites in Scotland. Since respondents were not given the chance to nominate other renewables, there is no evidence that wind- and wave-power were favoured.

Consultation

The survey set out to explore eight specific issues. Of the questions designed to elicit respondents' opinions (rather than information about them) half the questions (six) centred on this one issue. The conclusions are misleading.

Although few can remember being consulted over the development at the planning stage (13%), and the most common source of information about the proposed site at that time was the local newspaper (40%) rather than the local council planning office (4%) or the developer (1%), few are dissatisfied with the consultation by the developer (11%), with most expressing neutral views.

These are recollections over a three to eight year gap. Few, if any, of that one per cent of the population in a 20km radius would have been directly consulted either by the developer or the local authority. But the application would have been advertised in the local press where representations would have been sought by the local council planning office. Since questions were not specific we should not be invited to conclude that local newspapers provide more information than local councils which may have placed information in those newspapers.

Views are broadly similar with respect to the consultation from the local authority, although even fewer can remember being involved in this. People living within 10 km of the windfarm sites are more likely to recall having been consulted by the developer (37%), and are more likely to express a positive view of the process (40%).

This conclusion cannot be correct since it suggests that an impossibly high percentage of the local population (some 61,000 people) was consulted by developers.

If there is to be greater dialogue during a planning proposal, people would like to see it publicised through their local paper (43%), leaflets through the door (33%) or through public meetings (29%).

This conclusion is disingenuous. Respondents were asked what methods should be used to ensure people get information and can express their views. But the 14-option choice list contained very few methods that allowed any 'dialogue' except possibly the public meeting.

Given the general lack of knowledge about the planning process this is outwith the ability of most people to give a sensible reply. Respondents were not asked their opinion of the present planning process.