Hearing voices: A narrative analysis of the Senate Inquiry into the Social and Economic Impacts of Rural Wind Farms

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This is a preliminary examination of the public debate initiated as a result of the rapid expansion of wind farms in rural spaces. The study is based on a sample of submissions to the Senate Enquiry, *The Social and Economic Impact of Rural Wind Farms*. Using a narrative analysis methodology, the study identifies the issues raised in support of, or opposition to, wind farm developments in south-west Victoria. Narratives of personal loss or personal gain and by extension community gain were used to frame the stories. The narratives of loss struggled to connect to a contemporary public discourse and were as a result marginalised. The narratives of gain were found to link more successfully to themes with national and international currency that allowed the narratives to assume a ‘just’ stance. This study may be useful for others who engage, communicate and negotiate in the context of further wind farm developments.

**Introduction**

Australia’s wind generation capacity has increased by about 30% a year over the past decade (Global Wind Energy Council, n.d.). By the end of 2010 there were 1,052 operating wind turbines across 52 wind farms and a further 7 wind farms under construction (Clean Energy Council, 2010). The picture in Victoria is particularly dramatic. There are eight major wind farms currently operating in Victoria and a further 27 in the pipeline (Dept. of Primary Industries, 2011). The rapid development of such large-scale infrastructure projects in traditionally rural spaces has been both welcomed and decried by those living in affected communities (Hindmarsh, 2010). A Senate Inquiry was established in 2009 in response to these developments. After holding five public forums and reviewing over 1000 written submissions, the Committee recommended more epidemiological research, improved consultation and more informed guidelines for development. In summarising, the Committee noted that it “….has become evident during the Senate hearings is that there is an enormous divergence of views expressed by the proponents and opponents of wind farms” (The Senate Community Affairs Referencing Committee, 2011, p. 71). This is a study of these divergent views.

**Method**

This study has examined a sample of 106 of the 1017 submissions received by the Senate inquiry. All the submissions are available online and have been assigned a number.
The full set of submissions was reduced twice to arrive at the dataset used in this study. In the first instance a subset of 314 submissions was made based on their number. That is submissions with numbers from 1-100, 450-550 and 900-1014 were extracted for the second reduction. This set was made up of 189 submissions supporting wind farms and 125 opposed. The second reduction was more focused. The 314 submissions were read to ascertain the location of the author or the location of the wind farms referred to. Submissions written by people, businesses or organisations from western Victoria or submissions that were about wind farms located in western Victoria were withdrawn until we reached a total of 106. Of these 32 supported wind farms and 45 opposed. We judged that a dataset of about 100 submissions was appropriate for the time we had available for this project.

The study method used was a form of narrative analysis in which we disassembled data breaking it into fragments of text, paragraphs and lines. The fragments are reassembled into groups, a process that was repeated numerous times until emergent themes were established (Ezzy, 2002). This method of analysis is similar to that used by grounded theorists but we did not use established theoretical concepts as a basis for reassembling the fragments. Rather, the analysis compares and contrasts the narrative fragments within the dataset. This approach was relevant because our objective was to understand the character of the polarised debate on wind farm location in south-west Victoria.

Further confirmation that an introspective narrative would be appropriate was an early observation of the submissions. Most were framed from either a personally or ideologically perspective. The personal perspectives shared experiences that linked events with consequences. For example:

- My country dream has been shattered (478)
- We have enjoyed an excellent relationship with a responsible and ethical wind energy company…..they are proactively working (65)

Those with an ideological perspective linked convictions or ideologies to events rather than immediate experiences. For example:

- As a school we will proceed in what we believe to be in the best interests of our children, our school, our community and our world (896)

Writing submissions with personal or ideological frames may just be a convenient way of arranging their arguments or main points. It may also be a way of using prior knowledge and experiences to make sense of new experiences. Sense making is a process people engage in that is a “continuous effort to understand connections.......... to anticipate .... trajectories and act effectively” (Klein, Moon, & Hoffman, 2006). Sense making is a deliberate cognitive process to bridge the gap between the known and unknown that allows people to adapt by accounting for unrecognised or unexpected situations. Evidence of this cognitive process is found in the narratives people construct to tell their story (Dervin, 1997).

The written submissions are regarded as narratives: a formal response to a formal request (to understand the impact wind farms). The entire set of submissions contains
and reflects how the writers have made sense of wind farm developments. Considered in this way the narratives are far more than a representation of an event of belief. They reference or connect to broader interpretative frameworks to make ‘meaningful episodes’ out of meaningless events.

The data analysis consisted of a four-step process as follows:

What was said: fragmenting the data by line, sentence or word.
1. The identifier – this collected the ‘I am’ and ‘we are’ statements from each submission. These statements reveal how people located themselves in the issue and how they represented their authority to speak.
2. The problems and the benefits of wind farms expressed in the submissions. If a submission made multiple references to once problem or benefit it was marked as one instance.

How it was said: beginning to reassemble the data fragments.
3. Identifying primary narratives – the whole submission was re-read to identify the primary narrative and supporting subject matter. The subjects that emerged were ‘city vs. country’, ‘about self’, ‘about community’, ‘about business’, ‘about facts’, ‘about ideology’, ‘about planning’.
4. Themes were identified from the subject matter to make connections across the dataset.

The data were recorded on an Excel spreadsheet. Each submission was read and relevant excerpts copied and pasted into the spreadsheet. The excerpts remained linked to the submission number cited in this study.

The dataset used in the study has two main limitations. The first is that landowners hosting wind towers are absent. Indeed this group did not contribute to the Senate Inquiry, a point noted by the authors of the report (Senate Community Affairs Referencing Committee, 2011, p. 8). The second caution is that the submissions were written, a formal form of communication that does not suit everyone and therefore runs the risk of excluding some voices.

Results
The dataset consisted of 106 submissions. Of these 32 were from women, 54 from men and 6 from partners. The remaining 14 submissions were written on behalf of organisations or companies, or withheld their names.

What was said: The Identifier
The Identifier statements almost all were used to establish the writers’ proximity to the wind farms. Three categories were established:

1. Living in the same neighbourhood as wind farms (N)
2. Living in the same region as wind farms (N_WV)
3. Remote from wind farms (R), including people in major Australian cities and internationals.
Those living in the neighbourhood (N) were identified by their statements regarding proximity. This group wrote of living in close proximity to or sharing their neighbourhood with the wind farms. For example:

- *Our property is situated 5.5km’s* (461)
- *I have 3 turbines within 500 metres of my house* (492)
- *We have over 20 turbines visible to us* (10)

Those living in the same region as wind farms (N_WV) (whether under construction, proposed, or approved) but not proximal to them, were in nearby towns. As with Ns, this group is also drawn from western Victoria. While this group also lives in the same region as wind farms they are not a neighbour or in close regular contact with wind farms. Examples of statements in their submissions used to categorise them are:

- *I live in Ararat …* (70)
- *We are a local climate action group representing the concerned residents of this area* (516)
- *I have lived in Portland all my life…* (999)

The submitters from the third category (R) became part of the dataset because their submissions mentioned wind farms or townships in western Victoria. This group included people located away from Australian wind farms, often from major cities or overseas. There are fewer in this category than in the other two categories. They were identified by statements such as:

- *…..is the peak body representing Australia’s…*(67)
- *I write as someone with a very long term interest in energy matters  *(526)
- *As an Australian…. *(505)

The identifying data and its relation to proximity to wind farms are shown in Figure 1. The N group, those who also live adjoining or in daily contact with wind farms, were more likely to oppose the developments. The N_WV group, people who also live in western Victoria but in regional towns, were more likely to express positive views. People living remotely from any Australian wind farms in cities or internationally were split fairly evenly in this data set between opponents and supporters of wind farms.

![Stance and Proximity to Wind Farms](image)

*Figure 1: Summary of data by proximity and stance*
What was said: Proximity: Problems and Benefits

This section reports number of problems and benefits mentioned in the submissions. The N group highlighted negative issues 179 times and positive points 19 times. To reiterate, if the same problem (e.g., health concern, noise) was mentioned more than once in a single submission it was counted just once. Results show that the primary issues of concern for those living in a neighbourly proximity to wind farms are health concerns, noise, visual impact, and impact on property values. This is shown in Figure 2.

![N Group Positives and Negatives](image)

Figure 2: Positive and negative issues identified by N group

The N group touched on many concerns questioning the effectiveness of wind power to reduce atmospheric CO2, landscape issues and human health. Most often they raised issues of health as well as noise and visual impact of wind farms. Not of the group linked noise with health issues some raised it as an issue of noise pollution. A few references were made to positive points of income for host farms and community benefits as well as wind power’s positive role in reducing carbon pollution.

The N_WV group who live in the region but not neighbouring wind farms had an almost the reverse picture. For this group negatives were listed 45 times and positives 128 times.
The N_WV group more often used the efficacy of wind as a renewable energy source, employment and community benefits as positive outcomes from wind farms. The negative issues were mentioned less often by this group. They also were more likely to write about the wind farms in terms of the way of the future. For example:

- Wind power should be improved and supported as part of a plan to avoid the climatic chaos for which we are almost certainly heading (892)

Is Opposition Infectious?

The N group included people who have wind farms under construction, operating, or approved in their immediate neighbourhood. This means that some submitters were writing without the actual experience of living with an operating wind farm. Their negativity could be in anticipation of problems reflecting the wider controversy of wind farm location in rural areas rather than informed by experience. To explore this the N group was split into those who were already experiencing the situation (NE) 24 submissions and those who were anticipating the effects (NA) 14 submissions. The two are compared visually using percentage of times the issues were mentioned. The sample was not tested for statistical significance, however the trends are interesting. Results are presented in Figure 4.
Figure 4: Comparing negative points between NE and NA

The portion of the graph above the line shows positive points raised by both the NExperienced and NAnticipators. Figure 4 suggests that NAnticipators are more concerned with the property values, the environment, visual intrusion and noise than the NExperienced group. The NExperienced group mentioned health, community tension and the cumulative impact of multiple wind farms more often.

The groups also differed in the positive factors mentioned. The NExperienced listed the benefits of host farm incomes for the broader community, direct community benefits from employment and wind developers’ community assistance funds and the efficacy of wind power in reducing carbon pollution. The NAnticipators did not mention any positive aspects. It maybe that this group are still adjusting to wind farms in their area and are still close to the community consultation phase.

In summary, this data has shown that those living close to wind farms reported in their submissions more negatives than those who live further away. Differences in the impacts listed by those anticipating living close to a wind farm were also found with concerns for noise and property values changing to concerns for health, community cohesion and cumulative impacts of multiple wind farms.

The next section identifies the primary narrative and subject matter of the submissions.

**How it was said: Identifying Primary Narratives**

Identifying the primary narratives in the submissions was the first step in reassembling the material. Two narratives emerge: loss and gain. Narratives of loss are personal and tell about loss of personal health and previously-set future plans. They also tell of the loss of social place and marginalisation. Some examples are:
• The wind farm has created a problem at our church, as you can’t talk openly about the concerns you have. (10)

• The social impact is horrendous. Family members against family members and long friendships split asunder due to the approval or otherwise of wind turbines in one’s immediate visibility (19)

• Since the turbines were turned on I have suffered from headaches, sore limbs, my eyes are constantly weeping, insomnia and disrupted sleep patterns (492)

The narratives of gain differ in that they are extrapolated to the wider community. While they are stories of personal gain the benefits of the gain are assigned more widely than the individual. These narratives tell of economic opportunity and job security that extrapolate to a broader community benefit. In some instances this conflates self-interest and community strength. Examples of narratives of gain are:

• if we ….. are busy the entire town and beyond feels the benefits (998)

• …the potential for a new source of income available to us…will allow us to run our farming business at more conservative levels while maintaining a level of profit (65)

• as a director ……. we have done some work for the Oakland’s Hill wind farm and look forward to a continued business relationship as diversity in industry base in rural areas leads to a resilient local economy…(1006)

The subject matter provided a useful stepping-stone to the primary narratives. Overlap in subject material suggested that the information people were using was similar but the understanding or interpretation of that information differed. For example submissions that highlighted business or economics as the subject could be either opposing or supporting wind farms. Likewise in the city vs. country subject this could be used by either side to support their cause. This convergence provided the opening for the final stage – identifying the themes.

How it was said: Themes
How can two narratives, diametrically opposed to each other exist simultaneously? The integration of wind farms in rural space is a relatively recent development in Australia. To assimilate this change and make sense of it, people draw on their understanding of themselves, their sense of place and their perception of themselves in their community. Themes were used in this study to connect the narratives to this wider frame.

Both the narrative of loss and gain were found to connect the personal to a broader social canvas (Burningham, et al., 2006). In the case of the narrative of loss, the personal loss of relationships and health was contextualised against their assumptions about society, and in particular, rural communities. In the narrative of gain, the speaker extrapolates their gain to include the wider community, referencing this connection to Australian economic prosperity.
Four themes have been described in the submissions. These are (i) Ideology and Conviction, (ii) Social Equity, (iii) Assumed Rights and Expectations (iv) Place and Belonging. The themes are described below with examples of text that help define them.

(i) Ideology and Conviction
This theme aligns to a progressive narrative of responsive and responsible action to tackle climate change. Those part of this group are scientists, wind power companies or developers and well informed others who all recognise the potential for human suffering and regard it as a moral responsibility to act in multiple ways to reduce carbon pollution. The “outsiders” are people who do not recognise the impending problems are resistant to change their lifestyles or simply ignorant.

An example of this theme is:

- *Australia has a moral obligation to dramatically cut its carbon emissions, given the evidence that has been given to us by the world scientific community of the likely consequences of global warming* (505)

This tends to be a more authoritarian discourse. The submitters refer to a range of evidence types that can include reports, their own experiences or understandings.

- *I believe that renewable energy is the way of the future. Wind energy is the most viable of these emerging technologies it is ready now and it has proven its worth in many countries already.* (930)

(ii) Social Equity (fair go)
This theme assumes and holds a conviction for an egalitarian society. Those aligned with this subscribe to fair dealings between citizens, government and business. The theme allows for equality in opportunity: a civil life mediated by meritorious endeavours rather than pre-existing or a conferred social or economic influence. The “outsiders” are those who forge influence through the use of money or connections.

An example of this theme is:

- *.. the greatest fraud the Govt. has imposed on us yet. LACK OF CIVIL RIGHTS..* (9)

Those using this theme tend to be more outraged with the planning approval process a focal point for the conflict.

- *The greens should STOP trying to lock up all of Australia.......The greens do not consider the country people who are working to provide these things for those who live in the cities* (1)

- *systematic indifference of Victorian planning authorities and wind farm developers to the rights and interests of neighbouring land holders* (528)
(iii) Assumed Rights and Expectations
This is a grab bag of social rights not necessarily informed by legislation or legal foundation. Assumed rights are entitlements rarely articulated because they are taken as a given or immutable. The location of wind farms in rural areas has unearthed some of these assumptions. These include the connection between land ownership and a virtuous rurality that includes the right to farm and to landscape vistas. The narratives of gain tend to rely on rights to economic opportunity and advancement. The “outsiders” are all those who hold an opposing opinion and are characterised as having disregard or ignorance of rural realities.

An example of this theme is:

- Local commercially viable projects, supported by the community should not be held up by a small minority of unaffected objectors or for spurious health, noise or adverse property value effects (102)
- …but also the terrible destruction of the wonderful landscape God has given us (2)

(iv) Place and Belonging
This theme is personal. It organises around the people’s relationships, place and time. It is a powerful theme providing succour through recognition and personal validity. Insiders can locate themselves in their community by reference to their daily lives establishing their credentials to speak on the matter of wind farms. The “outsiders” are those alienated from local “knowing” though geography or deliberate ignorance.

An example of this theme is:

- I have observed animals in and around the towers and they seem to be relaxed. Talk of wind farms affecting wildlife seem to be hysteria created by those opposed to wind farms (999)
- Wind farms are widely supported in my community (1006)

Conclusion
This study has used a narrative style of analysis to describe the content of a sample of the written submissions to the Senate Inquiry to the social impact of wind farms in rural areas (Senate Community Affairs Referencing Committee, 2011). Opposition to wind farms is found among those who identify as living nearby or in the neighbourhood of wind farms. This group was divided into those who are experiencing the construction or operation of a wind farm and those for whom a development is approved by not yet begun. Many of those who are currently living in close proximity to wind farms reported health problems and had concerns with the cumulative impact of multiple developments. They were also concerned about the level of community tension associated with the developments. Those anticipating the development of wind farms to begin in the near future were typically concerned for property value, landscape amenity, and the noise and visual intrusion of the towers. For those people living further from the farms, in rural towns, the response tended to
be more positive. They mentioned the benefits of employment, host farmers’ income opportunity and the role of wind power in reducing carbon pollution.

Two primary narratives were associated with these groups. Those living closest to the developments tended to use narratives of loss to frame their submissions. That is loss of health, certainly, community status, or lifestyle. Those living regionally and supporting wind power development used a narrative of gain that carried a promise of improvement now (business and employment) and the future (meeting the challenge of the future).

The two narratives employed one or more of four themes: Ideology and Conviction, Social Equity, Rights and Expectations, Place and Belonging. The themes were used to support the position taken by both proponents and opponents. Working in the UK on participatory processes for wind development, Aitken (2010) concluded that a policy preference for wind power development had resulted in a public perception of legitimacy or credibility of endorsed ‘expert’ knowledge and that people would actively shape their arguments to reflect this. In this context opposition to wind power is to be ‘overcome’ and is regarded as deviant or illegitimate. The erroneous idea that opposition is misinformed has also been found in the Australian context where Hindmarsh (2010), reporting on the NSW community engagement process, describes it as akin to a ‘social acceptance outing’ to facilitate wind farm developments. By assuming opponents are lacking in knowledge and responding by delivering an education campaign, the wind industry risks alienating local communities and subsequently increasing social conflict.

The seeds of social conflict and alienation are present in the narratives described in this study. The themes with their broader links to established dialogues and discourses permit some opinions to lay claim to a moral and socially beneficent space while others are left to languish in their sense of personal loss as they fail to find a broader contemporary discourse.

This study represents a point in time and place on a topic that is transforming some landscapes and lives now. We remain mindful of voices absent from this study, such as wind tower host farms, who could have made insightful contributions to our understanding of the factors relevant to the location of wind farms in rural spaces.
References


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