

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 Inquiry, *The Social and Economic Impact of Rural Wind Farms* (2011). Using a narrative analysis (Riessman 2008), 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 what "...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

The written submissions to the Inquiry are treated as narratives. Narratives are stories built from text with a sequence of events that conclude with an outcome. Riessman (2008) has described narratives as stories deliberately selected by the teller for a specific audience. As a result, there may be many versions of the same event. Not only does the narrative therefore represent the submitter's version of events but it also offers a commentary on the meaning this has to them.

This diversity is present in the submissions. Typically there were two types; authoritative and personal. The authoritative submissions were formal responses representing an organisation's position while individual or family written submissions tended to relay personal experiences.

This study has adopted an interpretive approach to the analysis of submissions. That is, we did not set out to test the validity of the content, rather sought, through the analysis, to engage with the meaning embedded in narratives.

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 constructed based on their number. That is submissions numbered from 1-100, 450-550 and 900-1014 were extracted for initial review. This set was made up of 189 submissions supporting wind farms and 125 opposed. The second reduction was more focused. All 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 referred to wind farms located in western Victoria were selected for analysis.

An early observation of the submissions was that they were framed in either a personal or ideological 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.....(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. According to cognitive psychologists it is also a way of using prior knowledge and

experiences to make sense of new experiences (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. They reference or connect to broader interpretative frameworks to make 'meaningful episodes' out of meaningless events.

The data were summarised and analysed using an informal coding process to extract key points and themes (O'Leary, 2004). This employed 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 associated with wind farms as expressed in the submissions. If a submission made multiple references to a single issue, (either problems or benefits), it was coded 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 original submission number.

The dataset used in the study has two main limitations. The first is that there were no submissions from landowners hosting wind towers. 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 couples. The remaining 14 submissions were written either by an individual on behalf of an organisation, or people who chose to remain anonymous. Given the overall sample size and the absence of any evidence of systematic bias, it was decided to retain these anonymous submissions for further analysis.

What was said: The Identifier

The Identifier statements allow for the classification of respondents according to their proximity to the wind farms or how directly the windfarm impacts (or potentially will impact) on their lives.

- i. Living in the same neighbourhood as wind farms (Neighbouring =N).
- ii. Living in the same region as wind farms (Regional=R)
- iii. Distant from wind farms (Distant=D), 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 (R) (whether under construction, proposed, or approved) but not proximal to them, were in nearby towns. As with the N group, this group is also drawn from western Victoria. While the individuals of R group also live in the same region as wind farms they are not a neighbour to 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 (D) became part of the dataset because their submissions mentioned wind farms or townships in western Victoria.

This group included people located some distance 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 R group, people who also live in western Victoria but in regional towns, were more likely to express positive views. The D group, those living remotely from any Australian wind farms in cities or internationally . were split fairly evenly in this dataset between opponents and supporters of wind farms.

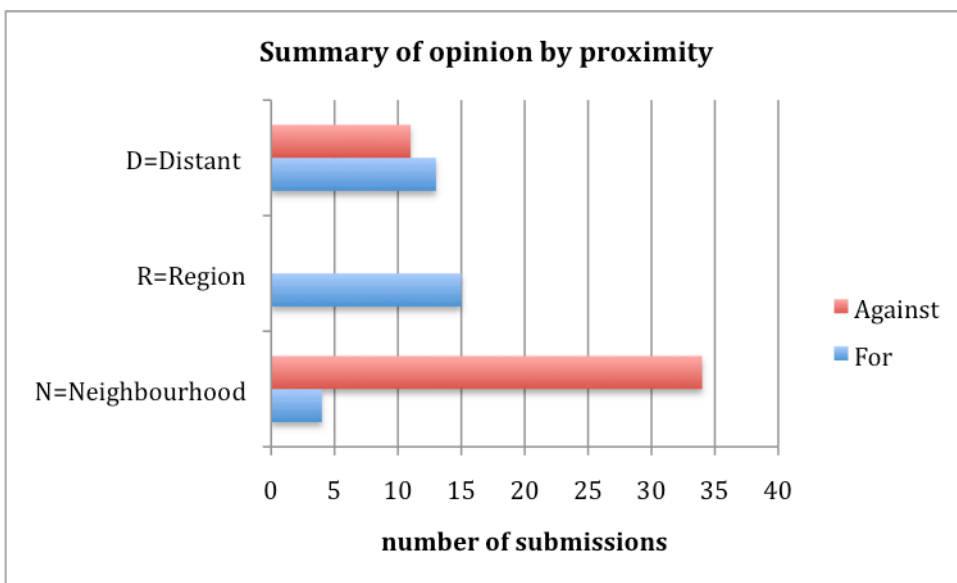


Figure 1: Summary of data by proximity and stance

What was said: Proximity: Problems and Benefits

This section reports the negatives and positives mentioned in the submissions. The N group highlighted negatives 179 times and 19 positives. To reiterate, if the same negative or positive issue (e.g., health concern, noise) was mentioned more than once in a single submission it was counted just once. Results show that the main negative issues 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.

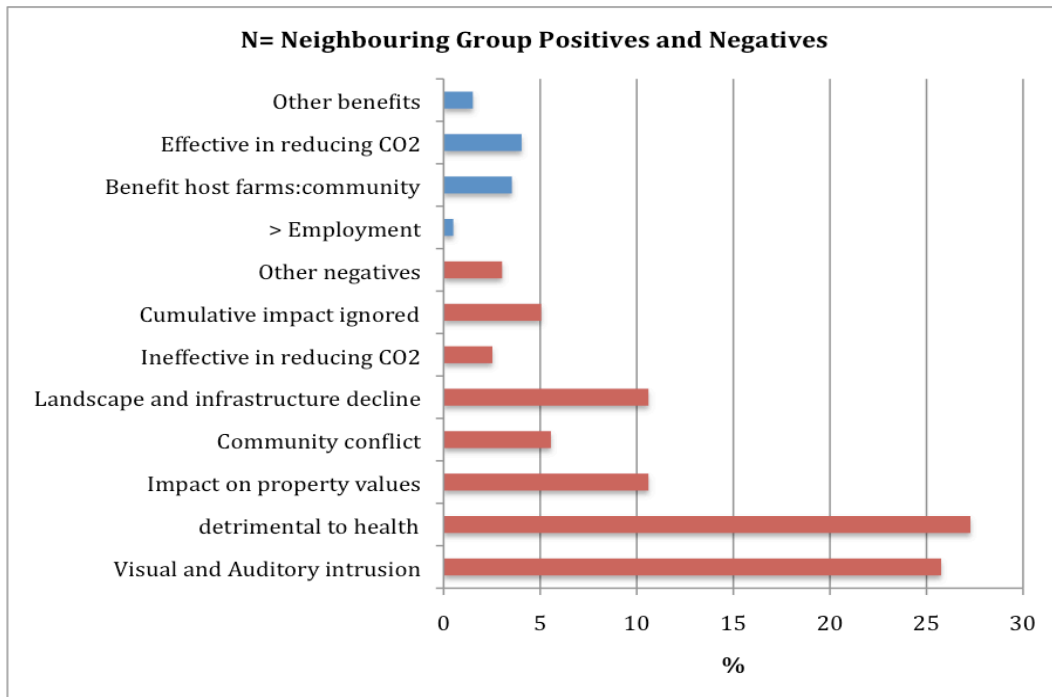


Figure 2: Positive and negative issues identified by N= Neighbourhood group shown as percentage

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 the visual impact of wind farms. A few positive points were an increased income for host farms, financial support for local community activities and wind power’s positive role in reducing carbon pollution.

The R group who live in the region but not neighbouring wind farms had almost the reverse picture. For this group negatives were listed 45 times and positives 128 times.

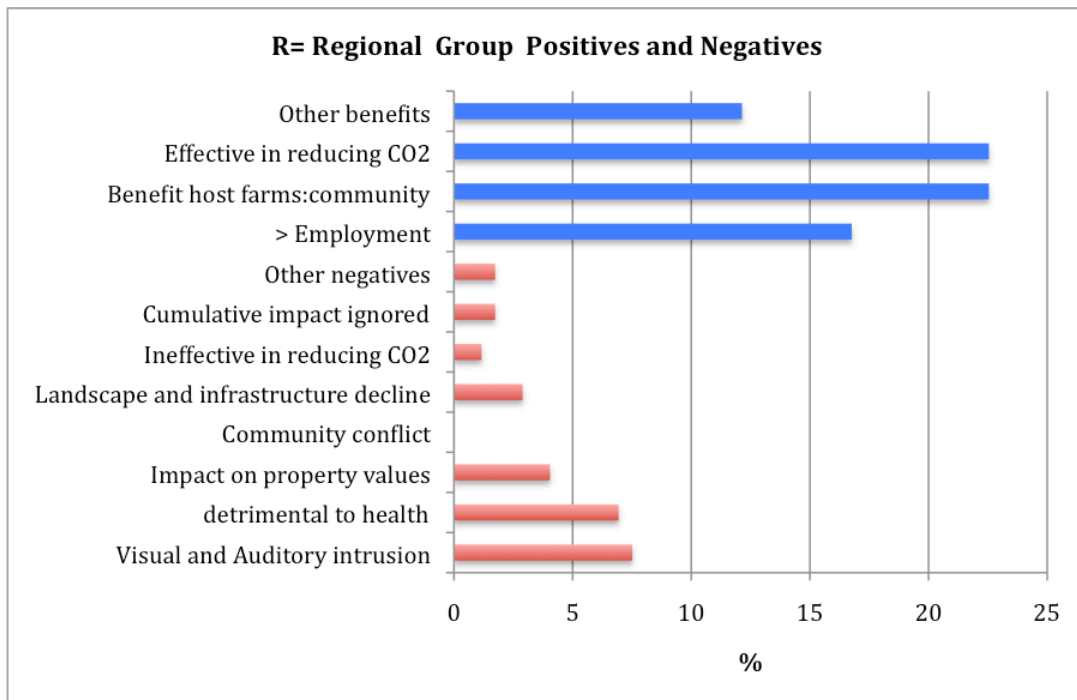


Figure 3: Positive and negative issues mentioned by R=Regional group shown as a percentage

The R 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)*

While, results from this study indicate that living in close proximity to a windfarm is associated with negative perceptions of wind energy, findings from previous studies are mixed. In his discussion of the literature Devine-Wright concluded that "explanations of wind farm perceptions must go beyond purely physical parameters, such as proximate distance, turbine size and colour, to encompass 'social' distance measures affecting the personal salience of a wind farm and are likely to prove important in explaining negative wind farm perceptions" (Devine-Wright 2005 p.130).

Is Opposition Infectious?

Exploring 'social' distance involves moving beyond the views of an individual to encompass the social network and influences that support the individual. In this study 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 is informed though their social networks.

To explore this the N group was split into two groups one comprising 24 submissions from those who were already experiencing the situation (NExperienced) and the other comprising 14 submissions from those who were anticipating the effects (NAnticipators). The two are compared according to the percentage of times the issues were mentioned. Tests of statistical significance were not conducted but some very clear trends did emerge. Results are presented in Figure 4.

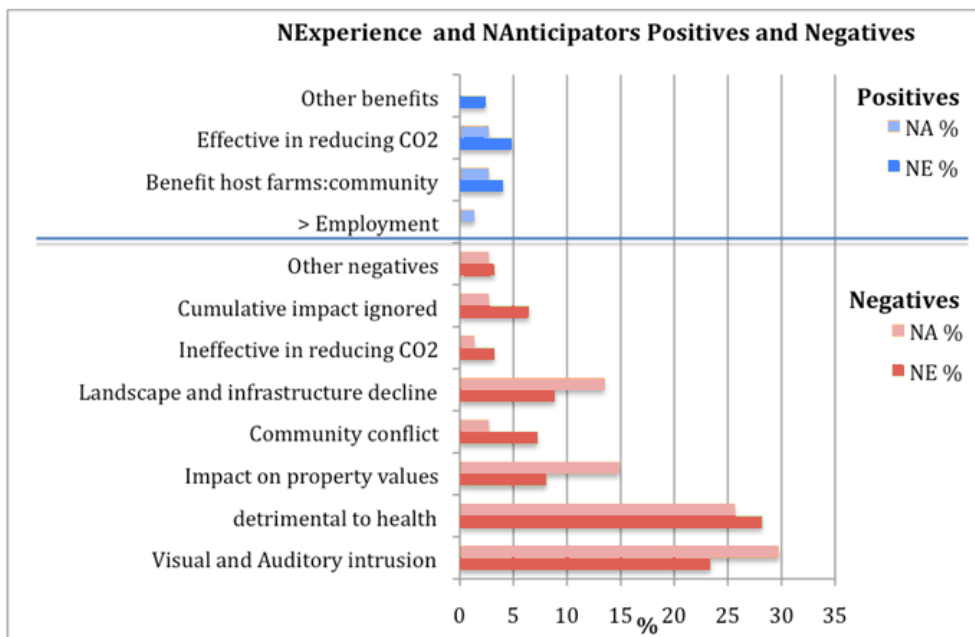


Figure 4: Comparing negative points between NE and NA shown as a percentage

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.

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 following 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 tend to be extrapolated to the wider community. While they are stories of personal gain, the gain is shared across a wide social territory. It is not a gain just for the writer. 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 while people with opposing viewpoints often utilised the same material, the manner in which they utilised it, their interpretation and understanding of the material, and the purpose for which they employed the material, differed according to the perspective adopted. For example submissions that included reference to business or economics could be supporting or opposing wind farms.

How it was said: Themes

Initially explanations for wind farm opposition were characterised as NIMBYism (not-in-my-backyard). This arose because of the apparent contradiction between the high level of public support for renewables and opposition from communities where developments were located (Devine-Wright, 2004). Devine-Wright concluded that, rather than a simple rejection of development, the opposition was informed by a mix of social, cultural and physical variables (Devine-Wright 2004). This multiplicity is also present in the two narratives which although diametrically opposed, tell a more subtle 'story' about wind farms in western Victoria.

Both the narrative of loss and gain were found to connect the personal to a broader social canvas. 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 submitters extrapolate their gain to include the wider community, referencing this connection to Australian economic prosperity.

The data were organised into broad themes identified by the researchers. To do this the researchers' cycled between the written submissions, the disassembled elements and our own interpretation of these fragments. The result was the identification of four themes; (i) Ideology and Conviction; (ii) Social Equity; (iii) Assumed Rights and Expectations; (iv) 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. These submissions tended to be authoritarian, written from a position of knowledge, special insight or strong conviction. They pointed to the potential for human suffering and regarded it as a moral responsibility to act in multiple ways to reduce carbon pollution. To them, the "outsiders" are people who do not recognise the impending problems, are resistant to changing 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)*
- *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

This theme assumes or considers equality to be the natural state. Those aligned with this subscribe to a social ethos which mediates fair dealings between citizens, government and business. The theme allows for civil equality of opportunity, access to resources. It is a life mediated by meritorious endeavours not pre-existing or a conferred social or economic hierarchies. To them, "outsiders" are those who forge influence through money or connections.

An example of this theme is:

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

Writers often used the theme to express outrage when the actions of others were considered to override the ethos.

- *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 anchored in legislation or common law. Rather, they are inalienable rights or 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 assumed rights and expectations. 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.

To them, 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) 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. To them, "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)*

We have described a pattern in narratives that emerges from the sample of written submissions. It is a pattern of both divergence and convergence. The two narratives of loss and gain counteract each other on the subject of wind farms. The narratives diverge in the problems attributed to wind farms, the consequences of wind farm developments and in the interpretation of what this means. By organising the data into themes we found the apparent divergence converged into broad similarities.

Viewed through the themes, the impact of wind farm development becomes a conflict over ideology, social equity, assumed rights and place. The submitters' reference to these broad themes reveals the space in which sense is being made and 'fought' over. This is significant because it suggests that the introduction of wind farms is not an external curiosity to be better understood through intellectual fact finding, but that it has touched on and challenged deeply held belief systems.

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 in to the social impact of wind farms in rural areas (Senate Community Affairs Referencing Committee, 2011). The analysis has demonstrated how

writers of the submissions value and make sense of the arrival of wind farms.

In this study, opposition to wind farms was prevalent among those who identify as living nearby or in the neighbourhood of wind farms. This group was divided into those who are currently living with the construction or operation of a wind farm and those for whom a development has been approved, but not started. 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; 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, Assumed Rights, and Belonging. The narratives were organised according to these broad themes to express both support for, and opposition to, wind farms. 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. In Australia the assertion that opposition is misinformed has also been found to be an inadequate explanation for opposition (Hindmarsh 2010). Reporting on a NSW community engagement process, Hindmarsh 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 continuing social conflict and tension associated with some wind farm developments has resulted recently in efforts to broaden the understanding of opposition from NIMBYism to an exploration of the socio-cultural climate, community well-being and the authorisation or social licence to participate. For example, Devine-Wright (2010) characterises opposition to wind farm development as a motivation for place protection that unfolds in stages. A recent review by CSIRO

found that the media's negative portrayal of wind farms may generate stress that triggers health problems which in turn are attributed directly to the wind farms.

Some now see this negative cycle as the result of failing to gain a social licence or permission to operate (Hall, Ashworth, Shaw 2012, p.55). This concept has been explored by Goss (2007). She employed the principles of procedural justice to reconstruct the consultation process. The results suggest that these principles can contribute to genuine dialogue.

The seeds of social conflict and alienation are present in the narratives described in this study. The emergent themes (Ideology and Conviction, Social Equity, Assumed Rights & Expectations and Belonging) with their broader links to established dialogues and discourses, permit some 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.

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