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Place-making and trust-building: The influence of policy on host community responses to wind farms



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HIGHLIGHTS

- Trust-based and place-based explanations for host community response to wind energy.
- The influence of wind policy on these dynamics is assessed over five wind projects.
- Centralized approval, community benefits, and spatial restrictions are influential.

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ABSTRACT

This article assesses the impact of wind energy policy choices on host community responses. Two key explanations (place-making and trust-building) for host community responses are identified from the substantial social science literature investigating local community reaction to wind farms. The relationship between these two key factors and policy choices is explored through a comparative case study of five wind farms during a time of major policy change in Ontario, Canada. These five wind projects are all located within a 50 km of each other but are built under different policy regimes, with different ownership arrangements and are of different sizes. They provide a basis to assess the impact of three specific policy elements – approval authority, community benefit arrangements and spatial restrictions of turbine placement – on the place-making and trust-building potential of wind projects in the host communities. We identify a wide range of interactions and conclude that the policy choice to elevate project approval to a central authority has had the most damaging effect.

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1. Introduction

"Everytime I look at the turbines [...] I want to throw up"
"I like them, I feel like I am offering something back [...] I think
they are a great idea, I have no problem if they want to put another
3 or 4 on the property"

These two quotations are taken from residents embroiled in a wind farm siting controversy in north-eastern North America. Variations on these sentiments are reported widely: elsewhere in North America (Pasqualetti, 2011a; Phadke, 2011; Slattery et al., 2012), the UK (Devine-Wright, 2011b; Woods, 2003), the Netherlands (Wolsink, 2000), Ireland (Ellis et al., 2007) and New Zealand (Graham et al., 2009). In some places, or perhaps more accurately, for certain segments of some local populations wind energy "works", it becomes enrolled into local

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economies and community life with little problem. For others, it does not "work" - wind energy is a source of irritation and a driver for conflict. What can explain these different outcomes? What policies might be put in place to mitigate conflict? Given the large body of evidence available there is ample opportunity to elevate local wind farm siting issues to a systematic analysis and some authors have pursued this challenge (e.g., Walker et al., 2011; Raven et al., 2009). Yet, the qualitative and case-study nature of wind energy and host community research continues to be a form of evidence that does not translate well to conventional policy making (Ellis et al., 2009). There is a need to explicitly link wind energy policy choices to host community responses. This article pursues this need by: (i) identifying key factors underlying explanations of host community responses from the social science literature; (ii) assessing how policy change affects these key factors based on a case study of five wind farms in Ontario, Canada.

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2. Social science explanations for host community responses to wind energy

Host community responses to wind energy infrastructure are known to range from hostility and active protest to relatively routine integration and even pride. The underlying reasons for these varied responses are complex and social science research has not coalesced around one generally agreed upon explanation. Many authors have put forward factors influencing social acceptance¹ of wind energy and we turn to this broad literature and identify two persistent themes. **Place-based** explanations which focus on how wind energy infrastructure alters the attachment residents have to their home areas. These include the Not in My Backyard (NIMBY) concept, pre-existing land use explanations, and the impact of turbines on property value. Trustbased explanations stress the importance of residents' trust in planning authorities and wind companies and include critiques of planning and project approval regimes (and wider institutional factors), the relationship between project acceptance and local benefit (including ownership), and local/newcomer tensions. The literature underpinning these two types of explanations is reviewed below. Following this we describe the methods involved in assessing a comparative case study of five wind farms with varied host community responses. In the final sections we assess the lessons learned from the case study and from the broader literature to summarize key interactions between policy choices and the place-making and trust-building potential of wind energy projects.

2.1. Place-based explanations

Place is a powerful concept. It refers to a fundamental human trait of creating meaning attached to the spaces we inhabit (Cresswell, 2004). In the context of siting wind farms this means that there is an additional level of site-specific features beyond wind-speed and proximity of the electrical grid to consider. Placebased explanations for community responses to wind farms have been advanced by Devine-Wright (2009, 2011b) focussing on psychological theories of attachment; these studies find that opposition to wind farms occurs when individuals feel the continuity, positive distinctiveness and capacity of a place will be threatened. Feelings of place-attachment are often expressed in terms of landscape. Barry et al. (2008) find that a major theme in statements of opposition groups are that cherished landscapes are being sacrificed for questionable climate benefits. Jobert et al. (2007) note that the type of landscape surrounding turbines is more predictive of host community acceptance than fewer and smaller turbines. In other words, a few turbines in the wrong place is worse than many turbines in another location.

Generally wind energy is seen as a threat to landscapes (Fisher and Brown, 2009; Pasqualetti, 2011a; Phadke, 2011; Wolsink, 2007b; Woods, 2003). Only places "stigmatized" as industrial by residents such as manufacturing areas, roads and railways are likely to accept wind energy (van der Horst, 2007). Yet, recent research from Mulvaney et al. (2013) and Banas Mills et al. (2014) shows moderate to high support for wind farms in the US midwest and Great Lakes region because residents see wind turbines as protecting the rural farming character of the landscape by preventing suburban expansion. Thus, landscape is a tricky concept upon which to make generalizations. Like "place", "landscape" implies an emotional attachment to particular spaces but landscape refers to a more detached visual appreciation of landforms;

landscapes are not "lived-in" (Cresswell, 2004; Mitchell, 2002). Provocative observations have been raised by Phadke (2011) and Woods (2003) about how disputes over wind turbines are manifestations of social class divisions between those that see rural areas as landscape and those that see it as a place for production. There are deep differences between those that use rural space for hiking, birdwatching or as a place of escape from urban hustle-bustle and those that use the same territory to cut trees, graze livestock or plough fields. Areas that attract and depend on tourists and amenity migrants frequently face challenges balancing newcomer/local ideas on forms of development seen to "fit" into landscapes (Gosnell and Abrams, 2011). This all suggests host communities that have tourism based economies, feature high proportions of seasonal residents, or are retirement havens will be less accepting of wind energy infrastructure.

A prominent place-based explanation for host community reactions to wind energy is the not in my backyard concept (NIMBY) in which an individual or community is in favour of wind energy as long as it nowhere near their own residence. It has become unfashionable for social scientists to give credence to this explanation. Instead researchers strive for less biased understanding of opponents positions' and not dismissing opponents' actions as selfish or deviant (Aitken, 2010; Devine-Wright, 2011a). Despite this, survey results often show the NIMBY position is present at low levels in host communities (Fast and McLeman, 2012; Walker et al., 2014b; Wolsink, 2000) and some (e.g. Cohen et al., 2014) argue that NIMBY is a rational reaction which should be recognized via policies which attempt to quantify costs and arrange for compensation.

Property values are heavily dependent on location and make up a final set of place-based explanations for host community reactions. Gulden (2011) provides a nuanced review of the property value literature from a homeowners perspective and makes an important observation; studies concluding a lack of statistically significant correlation between turbines and property values (e.g., Hoen et al., 2009; Vyn and McCullough, 2014) exist side by side with testimonial evidence of property value decline or selected case study sampling (e.g., Lansink Appraisals and Consulting, 2012), and survey based contingent valuation studies showing a willingness to pay to be further from turbines (Krueger et al., 2011; Landenburg and Dubgaard, 2007). Thus, both supporters and detractors of the claim that turbines decrease property values each have evidence to support their position. For homeowners seeking to understand what will happen to the value of their home, anecdotal evidence, particularly when disseminated by real estate agents is more powerful than large sample studies.

2.2. Trust-based explanations

The degree to which host community members trust the siting process and the wider policy decision to advance wind energy development as a public interest is extremely important. Trust is related to opportunities for meaningful engagement in the decision-making process and as Hagget (2011) observes the lack of such opportunity is a common underlying feature of many studies of wind farm conflict (Ellis et al., 2007; Fisher and Brown, 2009; Wolsink, 2007a). Importantly, local host communities may judge the acceptability of a wind project based on trust in the siting process independent of their trust in wider government policy. Ellis et al. (2007) have shown that wind farm supporters and opponents share a commitment to the UK policy concept of low carbon futures but diverge on their perceptions of the legitimacy of local wind projects. On the other hand, Jepson et al. (2012) found that support for local wind energy development and siting processes in Texas can co-exist with a deep scepticism of anthroprogenic climate change and of related mitigation policies

¹ We use the term "social acceptance" with caution. As pointed out by Batel et al. (2013), social acceptance implies a passivity on the part of host communities and the term obscures other responses including ambivalence, uncertainity, apathy, being unaware of the development and resistance.

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