



Original research article

Conflicted or constructive? Exploring community responses to new energy developments in Canada



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ABSTRACT

A large-scale transition to low-carbon energy sources is necessary to mitigate climate change. In practice, however, when new energy projects are proposed in specific places and regions, their proponents often face public resistance. This paper is a synthesis of a multi-investigator study of community responses to new energy developments in four Canadian provinces. We identify three questions that communities are asking about the governance of these projects: (1) Are the decision-making and regulatory processes open, rigorous, and accountable? (2) Have local people been meaningfully engaged? (3) Are the costs and benefits fairly distributed? Overall, we argue that public resistance is often a legitimate response stemming from inadequate governance of energy development. Specifically, and partly because of the changing role of government in policy-making and regulation, local communities lose trust that governance reflects and will protect their social and ecological values. We conclude that innovation in community engagement is needed, particularly in the context of rapid institutional change and governments that might be unable or unwilling to oversee inclusive decision-making processes.

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1. Introduction

A large-scale transition to low-carbon energy sources is necessary to mitigate climate change [1]. In practice, however, when low-carbon projects come to be implemented in specific places and regions, their proponents often face public opposition [2]. Within the last five years in Canada, local opposition has resulted in – for example, from our research – the cancellation of a proposed wind power development in Ontario's Kawartha Lakes and intensive social conflict over a run-of-river hydroelectric project on the Ashlu River, in British Columbia. Public resistance to low-carbon initiatives is, through one lens, seen as a barrier to new energy infrastructure to be overcome and often evidence of public irrationality or “NIMBYism” – communities' unwillingness to host technologies essential to the broader public good of energy system transformation. In this paper, however, we draw together research from across Canada and find evidence that resistance often occurs as a result

of community perception that governments – mainly at provincial and federal scales – are actively promoting energy developments (including those touted as low carbon) as projects of capital accumulation, rather than arbitrating fairly among different interests.

This paper draws upon the findings of a three-year collaborative research project that analyzed community responses to new energy technologies in four Canadian provinces (British Columbia, Alberta, Saskatchewan, and Ontario). From each region, we selected as a case study an energy technology (or, in the BC case, two) that governments promoted as a “low-carbon” solution to climate change. For example, the Alberta government notes that carbon capture and storage (CCS) will help balance the economic benefits from the development of natural resources with the province's “responsibility to reduce greenhouse gas (GHG) emissions” [3]. British Columbia, meanwhile, has promoted natural gas as a “bridging fuel” – the cleanest burning fossil fuel and one with the potential to displace dirtier fuels and aid in the transition to a low-carbon future [4]. As we explain below, however, in at least two of the cases we examine – shale gas in BC and CCS in Alberta – the real contributions of these projects to emissions reductions are the subject of much debate. Thus, in this paper, we refer to the energy developments simply as “new”; we wish to avoid replicating the

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more promotional (and controversial) language of “low-carbon” mobilized by certain governments. Nevertheless, via our analysis of community responses to new energy projects, we do in fact seek to provide meaningful insight into the complex governance challenges embedded in the transition to low-carbon energy systems. In each region, we deployed a variety of case-specific methods in an attempt to characterize the factors that influence public responses to energy developments.

Overall, we argue that public resistance is often a legitimate response stemming from inadequate governance of energy development. Specifically, and partly because of the changing role of government in policy-making and regulation, local communities lose trust that governance reflects and will protect their social and ecological values. This systemic lack of trust has been well demonstrated in recent community responses to conventional energy projects – for example, in the high-profile controversies over pipelines running through Western Canada (e.g. [5–7]) and Eastern Canada (e.g. [8]). In these cases, many different actors deemed the public review processes inadequate (e.g. [9,10]); the result has been public protests and, in some instances, legal challenges, including by First Nations (e.g. [110]). Our paper demonstrates that the same issues of mistrust are prevalent in new energy projects promoted as “low-carbon” solutions. Furthermore, while our paper focuses on energy developments within the jurisdictions of single provinces, these processes are influenced by changes to federal legislation, and a broader national pattern emerges when these case studies are analyzed in relation to one another.

Thus, while past research on communities and low-carbon energy has focused on social resistance to individual projects or technology types,¹ our research synthesizes research from different jurisdictions and technologies in order to call attention to broader procedural and distributive issues in governance of new energy initiatives – and to the challenges in social trust that can occur as a result. As we explain in our discussion and conclusions, our work is largely consistent with the growing literature on social acceptance of low-carbon energy, but resists the dominant framing of much of this work, which tends to analyze a specific technology or fall into a project-by-project approach.

Overall, we identify three questions that communities have regarding the governance of new energy developments: (1) Are the decision-making and regulatory processes open, rigorous, and accountable? (2) Have local actors been meaningfully engaged? (3) What distributive arrangements underlie the project? In short, resistance is heightened when communities are asked to relinquish certain landscape values or uses – to make sacrifices – in the absence of an institutional infrastructure that they are confident will protect their interests and values over the long term. By drawing together findings from diverse cases, we not only identify the need for higher level planning, such as, strategic environmental assessments, but also raise critical questions about what opportunities exist for these more inclusive and integrative models of decision-making, given changing political structures in Canada.

2. Background: contextualizing community resistance

Early research into social responses to energy developments (low carbon or otherwise) included the assumption that resistance was driven primarily by NIMBYism [11] – community refusal to accept local and aesthetic impacts on behalf of a broader

¹ Several studies explore how social resistance has developed in the context of specific low-carbon energy technologies, including wind turbines [12,14,58,18,127], photovoltaic solar systems [128,129], tidal energy (Devine-Wright, 2011), run-of-river hydropower [28], geothermal projects [130], and Carbon Capture and Storage (CCS) [121].

public good. Even today, the “scalar mismatch” between broad social support for renewable technologies and local opposition means that community resistance “often gets conceptualized uncharitably in public policy circles as the not-in-my-backyard (NIMBY) phenomenon” ([12], p. 932). The NIMBY idea, Burningham (2000) notes, may be used by project proponents “as a succinct way of discrediting project opponents” (cited in [13]). Subsequent research suggests, however, that concerns over landscape impacts are more than purely aesthetic, and can relate to experiences [14], local history [15], and “intangible spiritual reasons” [16]. Overall, people’s attachments to landscapes include affective dimensions often difficult to characterize within the narrow – and often dismissive – framing of NIMBYism.

Furthermore, scholars have framed the social impulse to protect local landscapes as “place protection,” which can be founded in feelings of place attachment and place identity [17]. The desire to protect a sense of place has been an important aspect of opposition to proposed wind energy developments [18–22]. Based on our research, we believe that communities’ impulse for place protection often articulates with other, broader concerns, including scepticism that regional governments and outside project proponents will understand or be motivated to pay sufficient attention to community notions of place. The task of protecting places against globalizing economic and political forces increasingly falls to communities [23]. In the synthesis of our diverse case studies, we found this scepticism – or lack of trust – regarding governance to be widespread.

In our analysis, we follow several scholars in arguing that the state’s role in governance is shifting in complex ways in relation to non-state actors [24,25]. In spite of the privatization of many formerly public responsibilities, governments are not vacating the regulatory sphere; they are retaining their capacity to “steer” industry [26]. In this context, communities ask to what end governments are “steering” energy industries. Our work suggests that communities perceive that governments at provincial and federal levels are pursuing energy projects for purposes of capital development and, as such, governments are seen as advocates for the developments rather than neutral arbiters of social interest. As a result, many communities doubt that governments have the intention or capacity to guarantee fairness and protect natural and social values over the long term.

Thus our work is part of a growing literature that does not see resistance to new energy infrastructure as narrowly self-interested or irrational but rather seeks to identify the specific processes through which social responses form [27–30,2]. Wüstenhagen et al. [2] studied the social acceptance of renewables, focusing largely on the social response to wind power. They argue that social acceptance has three main dimensions: socio-political acceptance, market acceptance, and community acceptance (Ibid). In this paper, we focus on the dimension of community acceptance, which “involves the extent that projects are undertaken or invested in by local stakeholders, how costs and benefits are shared, and how policymaking is conducted” ([29], p. 5271). Wüstenhagen et al. argue that, overall, community acceptance is based on the three issues of “procedural justice, distributional justice, and trust” (pp. 2684–85).² We elucidate these three issues to lay the framework

² In their extensive, multi-country study of wind and solar energy projects, Sovacool and Ratan ([29], Table 1, pg. 5272) elaborate upon Wüstenhagen et al. [2] and identify three factors of community acceptance: prolific community and/or individual ownership and use, participatory project siting, and recognition of externalities or positive public image. In this article, we focus on issues of participatory siting within our analysis of procedural justice and on issues of community ownership within our analysis of distributive justice.

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