

“His main platform is ‘stop the turbines’ ”: Political discourse, partisanship and local responses to wind energy in Canada

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ABSTRACT

Decades after wind energy has taken hold in many developed countries, social scientists are beginning to understand the complex story of what causes differentiated responses to local development. Transitions in this literature include moving from attitudinal factors, and the infamous Not in My Backyard (NIMBY) explanation, toward place attachment, environmental justice, and how policy development might shape support for wind turbines in rural communities. While this research has advanced our understanding of some of the major questions in this area, the political arena has largely remained implicit or in the background, rather than a specific area of detailed inquiry. Addressing this gap in the literature, we detail findings from our mixed method study of interviews ($n = 54$) and surveys ($n = 240$) with local residents, developers, and other stakeholders in Ontario and Nova Scotia, Canada. We focus on the interplay of partisanship and geography, and how together they can powerfully influence attitudes toward wind energy. Specifically, we extend the existing literature and argue that when parties politicize the issue of wind energy — especially within the context of an urban/rural divide — it becomes intertwined with elements of ideology which can amplify responses and further entrench local conflict.

1. Introduction and Literature review

The move toward low-carbon electricity often includes some level of local citizen concern, and even opposition. Through fast-paced wind energy development meant to address climate change, air pollution, and grow a ‘green economy’ (McRobert et al., 2016), Ontario, Canada has simultaneously installed the most turbines of any province and become a ‘hotbed’ of the anti-wind movement (see Baxter et al., 2013; Fast et al., 2016; Walker et al., 2014b; Walker et al., 2015). Those studying such social responses to wind energy have cited a variety of concepts meant to understand concerned citizen movements. In Ontario, perceptions of health effects (Baxter et al., 2013), property devaluation (Vyn and McCullough, 2014; Walker et al., 2014a), and injustice through the planning and siting process (Walker and Baxter, 2017a, b) have received the most attention. There is also recent work by Walker et al. (2018) that suggests perceived rural environmental injustice related to unfair development practices in the province. In

similar studies in other parts of the world (Ashwood and MacTavish, 2016; Kelly-Reif and Wing, 2016; Sayan, 2017; Schlosberg, 2013) injustice is seen through development that privileges the urban majority and leaves unwanted developments in rural spaces.¹ Combining these ideas with those from Europe and the U.S., researchers have explored a complex set of factors to explain turbine opposition that include personal, cultural, socio-economic, and procedural elements (see Cowell et al., 2011; Pedersen and Larsman, 2008; Thayer, 1988; Rand and Hoen, 2017; Wolsink, 2007; Wüstenhagen et al., 2007).

In terms of political narratives, Wüstenhagen et al. (2007) write about “sociopolitical” dimensions of resistance to turbines. While the framework is well-cited for its discussion of three key dimensions of social acceptance of renewable energy, it is notable here for specific reference to politicians, and by extension their messaging. The paper also stresses that a key challenge for renewable energy will be to gather a “critical mass of acceptance in the political system” (p.2689). Though Wüstenhagen et al. provide much-needed guidance, not much empirical

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¹ Other forms of climate policy development are said to pit urban and rural communities against each other. That is because especially in the absence of significant and equitable benefits, projects can impose costs on specific rural communities (Stokes, 2016), for the betterment of the broader (mostly urban) society (Aldrich, 2016). Part of this trend may be caused by a disconnect between the political values of urban and rural citizens – a significant cleavage in Canadian politics (Bittner, 2007).

work since has studied these ideas in any great depth. Recent research from Europe is showing that worldviews, partisanship and political framing influence opinions of energy conservation (Dharshing et al., 2017), hydro development (Tabi and Wüstenhagen, 2017), and various renewable energy technologies (Sposato and Hampl, 2018), though studies investigating wind energy specifically are still rare. That is, despite great advancements in related fields, there is still a lack of attention to the role of political ideology or partisanship as a predictor of local support for wind energy. Some that have explored a lack of support for wind turbines hint at political ideology (e.g. Devine-Wright, 2005), but not as a primary issue of study. Stokes (2016) provides an exception through a study that shows significant partisan electoral losses near wind energy developments in Ontario. Yet that study does not investigate how turbines, politics, and public responses intertwine on the local level. This work thus fills an important gap in the literature by studying how political dimensions may structure attitudes in rural communities where wind energy projects are located.

1.1. Politicizing attitudes

In this paper, we trace how attitudes toward wind energy can become ideologically charged and entrench division in places near turbines. In doing so, we add to our understanding of social responses to renewable energy by more fully exploring political context and connections to community opinion. Our main objective is to consider the role that politics can and does play in the way wind energy is incorporated into the political agenda in two Canadian provinces.

As a starting point, we acknowledge that support or opposition to local wind energy development is driven by residents weighing (perhaps unconsciously) the perceived costs and benefits of living in the vicinity of turbines (Zoellner et al., 2008; Stigka et al., 2014). Locals may be more supportive of local turbines and broader renewable energy policy if they benefit (or perceive they will benefit) (Wilson, 1980). Benefits can be personal and direct or generalized and diffuse. However, when it comes to large, multi-turbine wind energy developments, the utility of a cost-benefit analysis for determining attitudes breaks down due to the scales at which costs and benefits are distributed (Wolsink, 2000). Whereas the benefits of traditional energy development tend to be power, royalties, and employment, added to these for renewable energy are the environmental benefits of cleaner and low-carbon energy. There is an added twist for wind turbines, however, in that at the local level, landowners leasing space for turbines reap economic benefits while their immediate neighbours often do not (especially in Ontario; see Walker and Baxter, 2017a), and any costs (e.g., noise) are borne by all of those who live in areas where wind turbines are built.

While the general idea of cost-benefit analysis has value in predicting local support for renewable energy, we must be cautious in assuming that perceived benefits go beyond the pecuniary – they may have little to do with *environmental* benefits. For example, in communities of west Texas, the thriving wind energy industry does not rely on the environmental leanings of landowners (Fremeth and Marcus, 2016). Residents there are said to resent environmentalism and do not trust in the science of climate change (Jepson et al., 2012). Support is instead deeply rooted in conservative values of property rights and the economic benefits from turbines enable a rational, financial decision (see also Shukman, 2010). This case shows that the framing of ‘environmental’ issues can powerfully shape how costs and benefits are assessed in different places. Indeed, communicating messages that identify with the politics of local populations can help increase acceptance of policy (Druckman, 2011; Feinberg and Willer, 2013; Madrian, 2014).

Since individuals generally do not actually (or consciously) perform cost-benefit calculations, the stances of political parties can act as information shortcuts. If citizens are not personally affected, they may lack awareness or be uninterested, and the complexity of an issue tends to subvert any rational mental equation (Richards et al., 2012; Stigka et al., 2014). Seeking an answer, the stances of political elites can guide

voters to support or oppose a policy based on their partisan or ideological orientations (Converse, 2006; Kam, 2005; Sniderman and Bullock, 2004). However, in order for political cues to take effect, a party must take a clear public stance on the issue. The effectiveness of a political cue is said to also vary by the cohesiveness of the party (Brader et al., 2013; Merolla et al., 2008) and for an issue to be truly politicized, each party must have a stance that distinguishes it from others.

There is some evidence to suggest that these processes associated with party cues and opinion formation are more prevalent among those with conservative views. Jost et al. (2009) explain this may be due to the fact that it is easier to establish common ground with the status quo (than many possible alternatives). Conservatism may also have a ‘psychological advantage’ in that it more internally consistent and less subject to ambiguity (Rokeach, 1960; Tetlock, 2007). Further, Thorisdottir (2007) write that conservative policies have special appeal for those exhibiting ‘closed-mindedness’ and resistance to change.

1.2. The environment and partisan divides

There are a number of examples of how political leanings influence how people view environmental issues but it is not clear to what extent renewable energies — including wind energy — are politicized. In the US, many studies have looked into the widening Democrat-Republican divide in terms of environmentalism and climate change (Guber, 2013; Hahnel and Brosch, 2016; Jones, 2010; Weber and Stern, 2011). A Pew Research Poll (2016) found that almost 70% of Democrats but less than 25% of Republicans agreed that climate change is mainly the result of human activity.² Hornsey et al. (2016) present meta-analyses of the determinants of climate change opinions across 171 studies in 56 countries which show ideologies, worldviews and political orientations are the most powerful predictors. The authors conclude that evidence is “searched, remembered and assimilated in a way that dovetails with people's own political loyalties” (p. 625).

There have also been surveys in the US and elsewhere that have shown a political gap on other, more specific environmental questions, such as the use of biofuels, automobile regulations, efficiency requirements, and energy policy (Cacciatore et al., 2012; Dietz et al., 2013; Hahnel et al., 2018; Mayer, 2017; McCright et al., 2014). Bolson et al. (2014) show how *partisan motivated reasoning*³ (see Taber et al., 2009) can increase support (or opposition) for American energy law when a political endorsement is present. Concerning large-scale wind energy development in the USA and the UK, recent research has found that opposition is driven by conservative political attitudes (Bidwell, 2013; Carter and Clements, 2015). Looking at retrospective voting in Ontario, Canada, Stokes (2016) found that the incumbent party (the Liberals) received 4–10% fewer votes from those living within 3 km of a turbine compared to similar areas without turbines. She suggests that the concentrated costs of wind turbines were creating “policy losers [which then used] electoral institutions to amplify their voice” and vote against the sitting Liberal government (p. 958).

Despite recent trends in the US and other mostly western countries, environmental issues do not necessarily fit into the neat left-right dimension of political competition. Historically, in Canada, the environment was an issue that cut across ideological lines. For example, the federal conservative party government of Brian Mulroney actually created the Canadian Environmental Protection Act. Through a more

² A 2018 Gallup poll may provide more evidence that U.S. climate change opinion is strongly driven by political affiliation. The ‘opinion gap’ between Democrats and Republicans is widening under Republican President Donald Trump (Marcin, 2018) — a leader who has denied climate change and withdrew the U.S. from the United Nations Paris Agreement on climate change (Meyer, 2018).

³ Kunda (1990) writes that this kind of reasoning involves ‘selective information processing’, which motivates people to reach conclusions that are consistent with their existing opinions.

comprehensive analysis of political opinions and preferences in Canada, Anderson and Stephenson (2011) found that the environment has become an issue that correlates with support for parties on the left, but not so for the major party on the right. Thus, the broad issue of the environment may have become politicized and an important aspect of party competition in Canada. What is not clear is whether the same ideological absorption has happened with regard to wind energy across Canada — a kind of sub-issue of the environment.

With an understanding that political forces differ between places, we seek to better understand the influence of politics on local public opinion toward wind energy in two Canadian provinces — Ontario and Nova Scotia. Because Canada is, for the most part, a ‘three-party country’ — comprised of the NDP (left), Liberal (center-left) and Progressive Conservative (PC) (right) parties (Cross and Young, 2004) — we compare residents’ support for local wind energy projects based on their association with these three.⁴ Following the work of Stokes (2016), who compared voting records based on (ruling) government and opposition parties, we also look at responses based on this cleavage. Alongside the potential effect of urban-rural geography, we thus hypothesize two major ways in which the politicization of wind energy might affect local residents:

1. *Support for wind energy will be politicized along partisan lines (left to right and/or governing/opposition parties) and will be significantly intertwined with the degree of policy partisanship in each province.*
2. *Support will be further influenced by geography such that urban/rural political dynamics and tensions will affect perceived injustice among locals living near wind turbines.*

Using a combination of in-depth interviews and surveys, we investigate these ideas mainly from the viewpoint of citizens living near turbines, but also other stakeholders such as developers and policy experts.

1.3. The politics of wind energy in Canada

Because provincial contexts shape elements of the cases (and are important for greater generalizability), in this section we introduce the contexts in Ontario and Nova Scotia (see maps, Figs. 1 and 2 below and Table 1) and briefly discuss the history of wind energy in both provinces. Much of our discussion emphasizes the process of politicization of recent provincial decisions.

1.3.1. Ontario

Wind energy in Ontario was jump-started by the Liberal Party, the governing party from 2003 to 2018. Wind and other renewables were strongly promoted through the 2009 Green Energy and Green Economy Act (GEGEA), which aimed to encourage energy conservation, minimize greenhouse gas emissions and boost the economy (McRobert et al., 2016; Walker, 2012). The Liberals’ pro-wind movement was also made possible by convincing Ontarians of the need to ban coal-generated electricity on health grounds (Ferguson-Martin and Hill, 2011; Rowlands, 2007). Stokes (2013) note that under then Liberal Premier Dalton McGuinty, building grassroots support for green energy jobs in the post-2008 recession era also helped to quickly expand development (see also Rowlands, 2007). This is analogous to the strategy seen decades earlier in Germany where a green energy movement was spurred by nuclear threats in the wake of the Chernobyl disaster in 1986 (Laird and Stefes, 2009; Wüstenhagen and Bilharz, 2006).

⁴ We have excluded others, including the Green Party, for reasons of statistical coherence, specifically onerous sample size requirements. These parties make up a very small part of rural populations, and only garnered 4.8% and 0.9% of the vote in Ontario’s (2014) and Nova Scotia’s (2013) provincial elections, respectively (CBC, 2014, 2013).



Fig. 1. Map of Ontario.

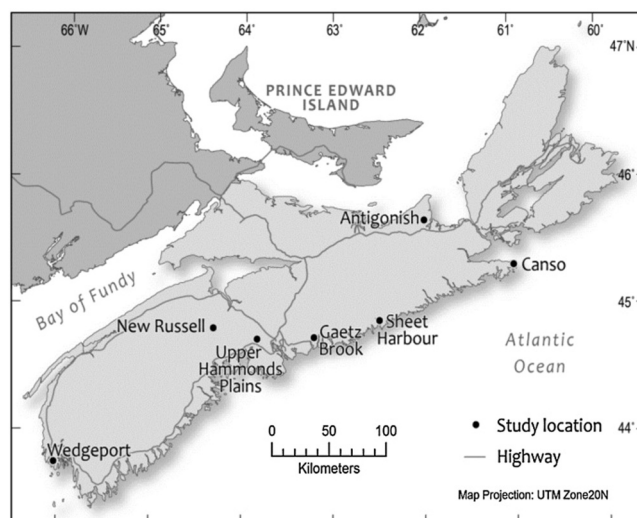


Fig. 2. Map of Nova Scotia.

In part due to the geographic distribution of support in Ontario (rural areas being more supportive of the PC Party and urban ones of the Liberals; see McGrane et al., 2016), wind turbines have rarely been constructed in Liberal districts. Thus, for many years the Liberals (under McGuinty and later Kathleen Wynne) may have risked little in the way of political capital with turbines being intended for rural areas where opposition has formed (McGrath, 2015). Using data provided through Ontario Wind Resistance⁵ (OWR (Ontario Wind Resistance), 2017) and

⁵ Ontario Wind Resistance is a one of two major anti-wind turbine citizen groups within the province and is committed to, among other things, compiling the list of townships and counties declaring themselves “unwilling host” communities for wind turbines. Given that local governments have little power during the siting of projects under current policy, these statements have meant very little in practice.

Table 1
Socio-demographics and energy characteristics of Ontario and Nova Scotia.

Province	Area ¹ (km ²)	Population ²	Population density (persons/km ²)	GDP per capita ^{a,3}	Recent voting results (by party) ^{4,5}	Fossil-fuel based electricity supply ^b (%) ^{4,5}	Wind energy generation ^c (%) ⁶	Price of wind energy ^d (policy; year) ^{7,8,9,10}
Ontario	908,699	14,193,384 (2017)	15.62	50,936	(2018) PC 40.6% NDP 35.7% Liberal 19.3%	8.2% (2016; natural gas)	0.09 (2005) 0.9 (2008) 2.9 (2012) 7.8 (2016)	11.5–13.5c/kWh (FIT; 2009–2012) 6.45–10.55 C/kWh (LRP; 2016)
Nova Scotia	52,942	953,869 (2017)	18.02	39,686	(2017) Liberal 39.5% PC 35.7% NDP 21.5%	75.2%(2016; 63.7% coal)	0.98 (2005) 1.4 (2008) 7.8 (2012) 10.6 (2016)	13.1c/kWh (COMFIT; 2012)

Information in the table above comes from various online sources: ¹Stats Canada (2018) <https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/prof/details/page.cfm?Lang=E&Geo1=PR&Code1=35&Geo2=PR&Code2=12&Data=Count&SearchText=nova%20scotia&SearchType=Begin&SearchPR=01&B1=All&TABID=1> ²Stats Canada (2018) <https://www150.statcan.gc.ca/n1/pub/12-581-x/2018000/pop-eng.htm> ³Stats Canada (2016) <http://www.statcan.gc.ca/tables-tableaux/sum-som/l01/cst01/econ50-eng.htm> ⁴CBC (Ontario) <https://newsinteractives.cbc.ca/onvotes/results/> ⁵CBC (Nova Scotia) <https://newsinteractives.cbc.ca/nsvotes2017/> ⁶Government of Canada - National Energy Board (Electricity generation and capacity in Canada) <https://open.canada.ca/data/en/dataset/2cdf43fc-d4aa-4604-9f21-29777d955810> ⁷FIT I (2009), ⁸FIT II (2013) <http://www.ieso.ca/en/sector-participants/feed-in-tariff-program/fits-archive> ⁹LRP Program (2016) <http://www.ieso.ca/corporate-ieso/media/news-releases/2016/03/ieso-announces-results-of-competitive-bids-for-large-renewable-projects> ¹⁰COMFIT: Facts (2012) https://energy.novascotia.ca/sites/default/files/comfit_facts.pdf.

^aReal Gross Domestic Product, expenditure-based. ^bCumulative total of all coal, oil and gas used to within the last full year of energy supply data. ^cRepresents the percentage of wind energy generation compared with the overall provincial electricity generation (all sources) using the most recent data available through the Government of Canada's National Energy Board. ^dReflect the prices given for select large-scale wind energy policy programs in Ontario (since 2009) and Nova Scotia (since 2012).

the CBC (2014), approximately 88% of counties and townships declaring themselves unwilling hosts of wind energy were located in electoral districts held by the PCs as of December 2017.

Since 2009, the Ontario PC party has called for a moratorium on turbine development and former PC leader Tim Hudak was vocal in his opposition to wind energy. His arguments — and those of his colleagues — focused on the economic burden of energy contracts and the lack of municipal sovereignty (Artuso, 2014). Both of these factors likely led to a rush of investment, and later to the rise of local opposition in the province (McRobert et al., 2016). Progressive Conservative Member of Provincial Parliament Monte McNaughton (2015) called out the Liberals and their majority government when they “deliberately ignored the interests and wishes of rural Ontario” when entering what he called “the wind turbine experiment”. Meanwhile, on the left of the political spectrum, NDP leader Andrea Horwath has questioned the way in which wind turbines were being built — saying government should promote community-based ownership (Morden, 2014; Warren, 2013). Pointing to the seats the Liberals lost in rural Ontario in the 2011 and 2014 elections, some have suggested the continued construction of turbines may have been a cause (Kiss et al., 2014; Den Tandt, 2014; Stokes, 2016; Warren, 2013). After 15 years of a Liberal government, a June 2018 election brought even more losses for the Ontario Liberals — this time resulting in a majority PC government under Doug Ford. Of his notable early moves as leader, Ford made good on Hudak's earlier promises by announcing his governments' intention to cancel more than 750 renewable energy contracts (including those related to several large wind energy projects) in order to lower costs⁶ and bring changes to Ontario's energy policies (Orland and Eckhouse, 2018). One such project was the White Pines Wind Project, for which a termination was set under the Urgent Priorities Act (OLA, 2018). In support of the idea that the decision was partisan, Financial Post columnist John Ivison (2018) called the move “bone-headed, [and] ideological” and was “less about “progressive” environmental politics than politically motivated

NIMBYism”. Others have suggested these moves are consistent with others from Ford, including a promise to remove carbon pricing, and a general reticence to *fully* accept climate science (Ferguson, 2018; Janus, 2018).

1.3.2. Nova Scotia

In stark contrast to Ontario, the promotion of wind energy was a three-party endeavor reinforced through successive governments in Nova Scotia. Contrary to Ford in Ontario, significant renewable energy development was ignited by Conservative premiers John F. Hamm and Rodney MacDonald (1999–2009). Under their leadership, several large wind projects were approved and built, including Nuttby Mountain Wind Farm (Nova Scotia Power NSP, 2017). During the announcement of the project in 2008, MacDonald was quoted as saying, “gone are the days when protecting the environment comes at the expense of the economy” (Sullivan, 2008).

More significant levels of wind energy development in Nova Scotia were initiated in 2010 by way of the Renewable Energy Plan (REP), which aimed to increase the amount of local, renewable electricity (Vass, 2013). The REP was announced under the leadership of NDP premier Darrell Dexter (2009–2013) who said in 2011, “Our province is undertaking nothing short of a transformation in how it generates electricity...” (Premier's Office, 2011). A major part of the REP was the Community Feed-In Tariff (COMFIT) program. Under COMFIT regulations, only community groups or individuals within a municipality could be majority (51% or more) owners of a wind energy project (Walker and Baxter, 2017a).

A 2013 provincial election brought in new leadership in the form of Stephen McNeil of the Liberal Party. During his first two years in office, he continued to promote wind energy and oversaw much of the approval and development processes that began with the REP. He stated in 2014 that “Nova Scotia is a small province with a big future in sustainable energy. We're addressing climate change and the need for a lower carbon future by embracing change” (Premier's Office, 2014). However just a year later, citing increasing cost concerns, the Liberal government cancelled the COMFIT program (Albertstat, 2015). Based on a brief media review, we found no criticism related to this decision from either the NDP or PC parties of Nova Scotia. In the years following (including another 2017 Liberal election win), the Nova Scotia government slowly introduced smaller, less impactful programs aimed at

⁶ The Ford government stated that cancelling 758 projects would bring savings of \$790 million in energy costs. However, critics of the decision claimed this value may be inaccurate, especially when accounting for the decreasing costs of renewables and any possible litigation by companies who were contracted to build these projects (Ferguson and Benson, 2018).

building renewable energy including the Solar Electricity for Community Buildings Pilot Program (Nova Scotia, 2018). Thus despite a recent slow-down, wind energy has been built and promoted by three different political parties in Nova Scotia, ranging from the ‘right’ (Conservative) to the ‘left’ (NDP). This perhaps unique phenomenon has been noted by some in the news media, including Pasha (2014), who wrote:

“Nova Scotia is a great example of what a jurisdiction can accomplish when there is the political will to create change. Despite having three different Premiers from three different political parties over the past 5 years, the province has embraced a move towards cleaner energy.”

It is also important to note that because Nova Scotia is more rural than Ontario, and there is not as strong of a rural-urban divide in terms of politics in the province (see Taber, 2013), wind energy development has not been concentrated within one party's electoral districts. This difference may be important for how local residents relate to wind energy development in their local area.

2. Methods

This study employed mixed methods (interviews and surveys) to better understand elements of politics and wind energy in Ontario and Nova Scotia. Combining methods is useful for the study of complex phenomena (Johnson and Onwuegbuzie, 2004; Creswell and Clark, 2007) such as wind energy acceptance (Devine-Wright and Howes, 2010). In order to test the emergent themes from the first stage of qualitative, in-depth interviews, a quantitative survey was also developed. Through the use of this sequential exploratory research design (Terrell, 2012), we resisted the ‘methodological orthodoxy’ of emphasizing mainly quantitative findings (Hesse-Biber, 2010).

Beginning in the spring of 2014, interviews (n = 54) were conducted to learn about the ‘daily-life’ experience (Boeije, 2002) of energy planning and living close to operational turbines. Threats against qualitative rigour were guarded against in at least four ways: i) ‘in-situ’ member checking, ii) transcribing verbatim and using only verbatim quotations as findings, iii) the use of both random and purposeful sampling, and iv) the use of a semi-structured interview guide. In May 2015, surveys (n = 240) were developed from the material gleaned from the interviews and were fielded to larger groups of residents in order to test emergent themes across a wider sample. We promoted quantitative rigour in the survey work through several field and analytic strategies.⁷ Most prominently, when sending surveys, we used both random and total sampling as context dictated. This helped to ensure results may be generalized. With a modest, but not uncommon, response rate of 17.8%, there was certainly some degree of self-selection bias, however this did not vary systematically by province or community. We also enhanced quantitative rigour through purposeful survey design (i.e. via preliminary results and a literature review) and we bolstered response flexibility by allowing residents two options (online or mail) for returning their survey.

This paper is part of a larger project meant to understand the impact of different policy regimes on local acceptance of wind energy. A total of 10 communities (Ontario = 3; Nova Scotia = 7) were selected as research sites largely on the basis of policy context (i.e. corporate-led vs. community-based). For the surveys of local residents, we chose a strict 2 km setback distance because: i) it has been advocated by citizen groups and academics as the ‘safe distance’ to protect locals from negative impacts (Pierpont, 2009; Shepherd et al., 2011) and ii) for consistency with several existing quantitative studies (Baxter et al., 2013; Shepherd et al., 2011; Walker et al., 2015; Walker and Baxter, 2017a). More communities were chosen in Nova Scotia because the number of homes within 2 km of a turbine was generally fewer and thus

we required more sites to achieve comparable sample sizes. At the time research was undertaken, two Ontario communities were represented by the PCs, while one was represented by the NDP. The seven communities in Nova Scotia were mostly represented by the Liberal party (n = 5) while two were represented by the NDP and PCs.⁸ More details about each community can be found in a companion piece to this work (Walker and Baxter, 2017a).

Data collection began in the spring of 2014 in the form of interviews with developers, municipal staff, policy experts and residents living close to wind turbines. Interested participants responded to a letter of information or were recruited through snowball sampling (see Noy, 2008). The interview questions covered a range of topics including political influences, planning processes and development outcomes. Transcribed interviews were coded by theme using NVIVO qualitative software. To ensure we stayed grounded in the data (Glaser, 1992), inductive line-by-line coding was completed with some attention to existing literature on social acceptance (Bradley et al., 2007). Rigour was further addressed by using low inference concept labels within NVIVO (Baxter and Eyles, 1997). After preliminary analysis of the interviews was completed, in 2015 a quantitative survey was developed and delivered to residents (n = 1346) living within 2 km of a wind turbine in the ten communities. The survey questions were designed based upon the initial results from the interviews and established literature with most presenting statements and measuring agreement using a five-point Likert scale (1 = strongly agree to 5 = strongly disagree). After two mailings, a total of 240 resident surveys were returned for a response rate of 17.8%. This quantitative data was analyzed in SPSS 24 using a variety of bivariate tests including t-tests of means and correlations.

3. Results

Below we present mixed methods results that emerged from this mostly inductive study. The two main hypotheses driving this inquiry related to politicization and geography (see 1.2. above) were developed through some existing research as well as the preliminary interview analysis. These ideas were then explored via the later interviews and tested more formally using the survey to assess the wider generalizability within the communities. The main findings are organized according to the two main hypotheses.

3.1. Politicization of wind energy

3.1.1. Interview findings: Ontario

We were already familiar with the situation in Ontario from the existing literature and from conducting previous case studies there. Initial interviews for the current study reinforced the impression that wind energy development has become highly politicized. In conversations like the one with “Sandy”⁹ (a self-identified PC supporter living near an 18-turbine project), some opposed to wind energy had a rather fierce hatred of the Liberal party. The opinion she shared suggests problems stem as much or more from the government responsible for promoting turbines than the turbines themselves.

“Sandy” (ON): I’ve said different times, “Put a wind turbine up beside Mr. McGuinty’s [former Liberal Premier] cottage! Put a turbine up on the

⁷ More detail about each of these strategies can be found within a companion piece (Walker, 2017).

⁸ Communities were not chosen explicitly because of their political preferences (i.e. in terms of voting patterns in recent elections), in part because this research project was originally designed to focus on policy and development approaches between the two provinces. That said, they do somewhat mirror the results of recent provincial elections in rural areas of both provinces—mostly Progressive Conservative in Ontario and mostly Liberal in Nova Scotia.

⁹ The identities of all participants in this study have been protected through multiple means, including the use of pseudonyms (e.g. “Sandy”) in all publications.

front steps of the Ontario Legislature. Put solar panels on the roof of the Ontario Legislature.” You know? Do we do as you say or do we do as you do?

The comment that politicians who make decisions regarding renewable energy should be forced to live with them also suggests that daily-life is strained for some within 2 km of a turbine. The idea that the origin of the ‘problem of wind’ was in fact political parties – in Ontario, the Liberals — was reinforced through conversations with developers like “Graeme”, who had similar theories. As someone who developed one of the projects in one of our sampled Ontario communities, he was told by locals that industry should not be blamed for the ‘industrialization of rural communities’. Rather, criticisms should be directed toward provincial leaders in urban centres — suggesting “Conservative/Liberal” and “urban/rural” divides:

“Graeme” (Developer, ON): *We’re hearing [from local residents] like “Look, it’s not you guys.” You know? It’s more the policy that people are against as opposed to even developers and the wind project. It’s almost like a Conservative/Liberal, urban/rural thing is the sense that I get.*

Residents aligning themselves with the PCs were not the only ones influenced by political factors. Indeed, Liberal-affiliated “Carol” seemed to support wind energy in part because of her allegiance. She also insisted that part of the opposition to wind energy seen in Ontario is due to the “small contingent” of Conservatives who may deny climate change science or have other partisan motivations.

“Carol” (ON): *There’s also a bunch of...a small contingent here of partisan people who are anti-Liberal. Some of them may be tied to very conservative concerns like climate change denial and so on...but in general they have a political reason for opposing the Green Energy Act.*

Contrary to those concerned citizens we spoke with, “Carol” insisted that the real problem related to wind energy begins and ends with anti-Liberal attitudes that are unable to be swayed by what she insists are good policy decisions.

While these discussions reveal evidence of politicization, so too do conversations regarding daily-life. In Adelaide-Metcalf, Ontario, resident “James” reveals just how much the issue of wind energy became a part of everyday political discourse. In his view, a local PC politician was re-elected in 2014 mostly on the platform of “stop the turbines”.

“James” (ON): *For instance, we have a ... this is his second term as, we have a Conservative MPP in this area and he got elected on the platform of stopping turbine development.*

Interviewer: *Is that McNaughton?*

“James”: *Yeah. Monty McNaughton. He got elected [in 2011] and he got re-elected just last week and his main platform is “Stop the turbines.”*

That “James” perceived his local representative not only ran but won on a platform of halting wind turbine development is very indicative of the effectiveness of anti-renewable political stances in some rural Ontario communities.

3.1.2. Interview findings: Nova Scotia

In contrast to Ontario, there was a clear lack of political divides on the topic of wind energy among parties in Nova Scotia. Both residents and political officials there suggested that: i) support was much higher and; ii) any opposition to wind energy was not strongly connected to partisanship. “Eileen,” who lives near a small, two-turbine, 4.6 MW wind project, was apologetic when she reported that development in her area had not been divisive — politically or otherwise.

“Eileen” (NS): *I mean sorry I’m being very boring, but this has not been a controversial thing at all. Zero controversy in that area or the one on [highway] 245. I don’t know why ...I’ve never heard anybody even talk about the wind turbines. They’re all talking about, you know, how big their tomatoes are this year and stuff.*

That “Eileen” describes talk around her neighbourhood as centering around fruit and other “stuff” demonstrates a stark contrast with the idea that anti-wind sentiment has become a platform for politicians in rural Ontario.

To examine why wind energy was less controversial in Nova Scotia, we spoke with many people including experts familiar with the evolution of policy in the province. “Paul” worked in policy circles for several years and closely followed the changes and different approaches to wind energy. Sitting in his office in downtown Halifax, he confidently stated that the lack of a divide among provincial leaders was paramount and this led to the popularity of renewable energy.

“Paul” (NS): *I think part of [the success] could also be attributed to the fact that the PCs came on board with [renewable energy]. The NDP of course, they were on board with it and the Liberals kind of just came along too. So there was a sort of consensus in that sense. There might be a bit of a difference in how quick the rollout should be ... but really that wasn’t an [2013] election issue.*

Thus according to “Paul” and others, the consensus built around the shift toward wind energy largely removed the issue from the political arena in Nova Scotia.

3.1.3. Survey findings regarding partisanship

The interview data give a clear sense that a political divide on the issue of wind turbines exists mainly in Ontario. To examine these initial impressions in a larger sample, we used our survey data to test the relationship between political partisanship and local support quantitatively.

To measure partisan preference in the three-party system, we used each respondent’s answer to the question “my political affiliation most closely aligns with the ___ party of my province”. In cases where people chose “other” or left the question blank, we used a secondary question, “In the last provincial election, I voted for the ___ party”. This allowed us to classify 56.3% of our sample ($n = 135$) by political affiliation. Fig. 3 shows turbine facility support by political leanings in Ontario, Nova Scotia and the overall sample. Local support is the primary dependent variable, measured by responses to the five-point Likert-scale statement “I support the existing wind power project in my community”. After reverse coding was done¹⁰ respondents were categorized as supportive if they responded ‘somewhat agree’ or ‘strongly agreed’ (4 or 5) and opposed if they responded ‘strongly disagree’ or ‘somewhat disagree’ (1 or 2). Fig. 3 indicates that 50% of Liberal-affiliated Ontarians living near turbines supported their local turbines. Those with other party affiliations were much less supportive. Quite contrarily, there is high support among supporters of all parties in Nova Scotia — especially NDP-affiliated residents living near turbines.¹¹ When looking at the entire sample, there is a weak but significant bivariate correlation between political affiliation (i.e., left-right on a political spectrum) and support for wind energy¹² ($B = 0.216$) and an aggregate difference of more than 50% points across provinces in terms of local support (27% in Ontario, 79% in Nova Scotia). The partisanship effect seems to be driven mainly by dynamics in Ontario.

To further assess whether the effect of partisanship was greater in Ontario, we conducted *t*-tests on mean responses to the question of local support across political parties in Ontario (Table 2) and Nova Scotia (not shown). This follows from our first hypothesis, that the level of

¹⁰ Through all cases of analysis of the ‘local support’ question, we reverse code the data to ease with understanding (see also Table 2).

¹¹ In our small sample of 13 people, all supported their local project.

¹² The correlation is such that Conservative political leanings are associated with higher levels of opposition. That being said, the pattern is certainly not a linear one, as the highest levels of support actually come from the middle of the political spectrum (the Liberal Party) in the overall sample.

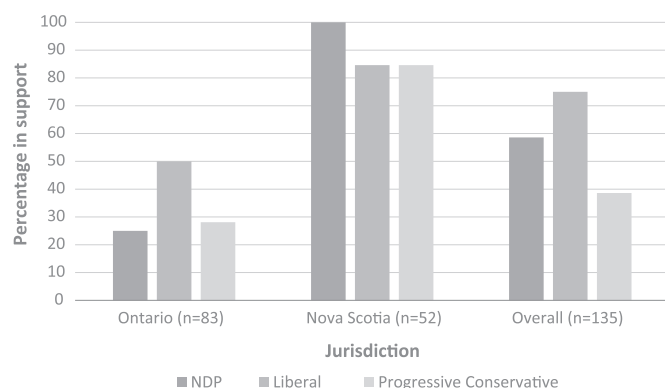


Fig. 3. Percentage in support of local wind energy project, by party preference.

Table 2

Partisanship and local wind project support (Ontario).

	Mean ^b	Standard deviation	Significance (p-value) ^c
Three-party system^a			
NDP (n = 16)	2.25	1.483	
Liberal (n = 10)	3.30	1.767	
Progressive Conservative (n = 57)	2.30	1.614	
t-test (NDP and Liberal)			0.116
t-test (Liberal and Conservative)			0.079
t-test (NDP and Conservative)			0.915
Binary system^a			
Government (n = 10)	3.30	1.767	
Opposition (n = 73) ^c	2.29	1.577	
t-test (government vs. other)			0.064

^a Sample sizes vary between political parties within our sample likely because especially in Ontario, the rural communities we sampled were in Progressive Conservative (n = 2) and NDP (n = 1) ridings. Thus is it not entirely surprising to see a majority of self-identified PC survey respondents (57/83 or 68.7%) nor some degree (16/83 or 19.3%) of NDP respondents. Liberal respondents make up the smallest sub-sample (10/83 or 12%).

^b Means represent average responses to the inverted, five-scale Likert scale questions of local support where 1 = strongly disagreed, 5 = strongly agreed. Higher values represent higher levels of support/lower levels of opposition.

^c T-tests of means were run between two parties of the three-party system and government (Liberal) versus opposition (all others). Despite some practical differences between means (i.e. as high as 1.05), no statistically significant differences were found among any of the four comparisons.

politicization of the issue will affect levels of support, but also relates to our second hypothesis about geographical differences. Our analysis reveals no significant differences across all comparisons of parties. Yet as suspected, Liberal compared with PC respondents in Ontario displayed a relatively large variation and was approaching significance ($p = 0.079$). To tease out the effect of political competition further and address our alternative specification of support (government vs. opposition), Table 2 also shows the mean responses to the question of local support for those affiliated with the government party (Liberal) versus opposition parties (all others).

In Ontario, Liberal supporters have a mean turbine project support score of 3.30 (weak support) and other party supporters a score of 2.29 (moderate opposition). The relationship is not significant at the 0.05 level ($p = 0.064$). In the Nova Scotia sample (not shown), the difference is likewise statistically insignificant, but with much less difference in mean scores (government = 4.15; opposition = 4.58; $p = 0.132$). In addition, we ran a non-parametric cross-tabulation which confirms the statistically insignificant relationship between partisan views and wind

turbine support in Ontario. Across the larger sample of both provinces, the Likert-scale difference in support when comparing government and opposition parties is 1.03 — and is significant at using t -test of means ($p = 0.002$; not shown). This difference is larger than most (4/5) demographic and contextual factors measured.¹³ Thus, although only some of the results are statistically significant, the survey findings are in the expected direction and suggest more pervasive political divides in Ontario. With a greater understanding of political views in mind, we also explore the types of cost-benefit analyses people may be using to inform their opinions in Ontario. We are interested in how costs and benefits of development are perceived by residents, based on their political affiliation. Figs. 4 and 5 show the levels of agreement (Likert-scale; mean response) to all direct survey questions of benefits ($n = 6$) and costs ($n = 11$) related to turbines for those associated with the government and opposition parties in Ontario. The pattern is as predicted from the interviews in that across all 17 questions, Liberal supporters were more likely to agree that there are substantial benefits and disagree with the idea that there are substantial costs. Differences are statistically significant for most (11) of the questions. The only benefit not significantly different by political affiliation was related to ‘an adequate amount of economic benefits’. There were five questions of costs¹⁴ that were not significantly different by affiliation: ‘wind energy as a threat to wildlife’, ‘wind energy lowers property values’, ‘wind energy as being visually unappealing’, ‘more financial benefits are needed for my community’, and ‘wind energy has brought unacceptable levels of community conflict’.

3.2. Wind energy, geography and local support

The previous section suggests there is a provincial geography to partisan wind turbine support in our survey data. This section elaborates more on the nuances from the interview findings — particularly as they relate to urban/rural differences. As recent Ontario provincial elections have shown, political viewpoints seem to be almost inseparable from geography in a sense that urban communities tend to vote with the Liberal and/or NDP parties and rural residents prefer the PC party (CBC, 2017). Combining that geographic voting pattern with the pattern of wind energy development and the partisanship of the decision-makers, it is straightforward to imagine some degree of resentment toward the Liberals from those in rural Ontario. Ontario residents like “Don” are very much aware of these patterns of development and their opposition to wind energy seems to be largely predicated on it.

“Don” (ON): Now given that too if you took a look around the province of Ontario where all the windmills are there is no Liberal riding that has a windmill because all the Liberal seats are in cities and the people in the cities want to put windmills in the country and the people in the country don’t want the windmills. Why don’t they put them in the cities where the people want them? [Laughing]

The high-level awareness of geography is indicative of the fact that some local residents are thinking about the mismatch between those who are making decisions about wind energy and those who are actually living with the reality of those decisions.

¹³ The variables measured (and differences of means) were: Gender (male v. female; .264), Age (18–49 v. 50+; .304), Education (no diploma/high school v. college, university, graduate school; .147), Province of residence (1.173), and wind turbine on property (v. no turbine on property; .989).

¹⁴ An example of a cost that was significantly different by political affiliation is seen through perception of health effects from local turbines. 37.5% of respondents associated with the PC or NDP agreed that wind energy is a threat to human health, while only 11.1% of Liberals reported the same. Across the larger sample of all survey respondents, Ontario residents were nearly three times more likely to report health problems than those in Nova Scotia (i.e. 15.8% vs. 5.5%). Both of these comparisons are significant using t -tests of means ($p = > 0.05$).

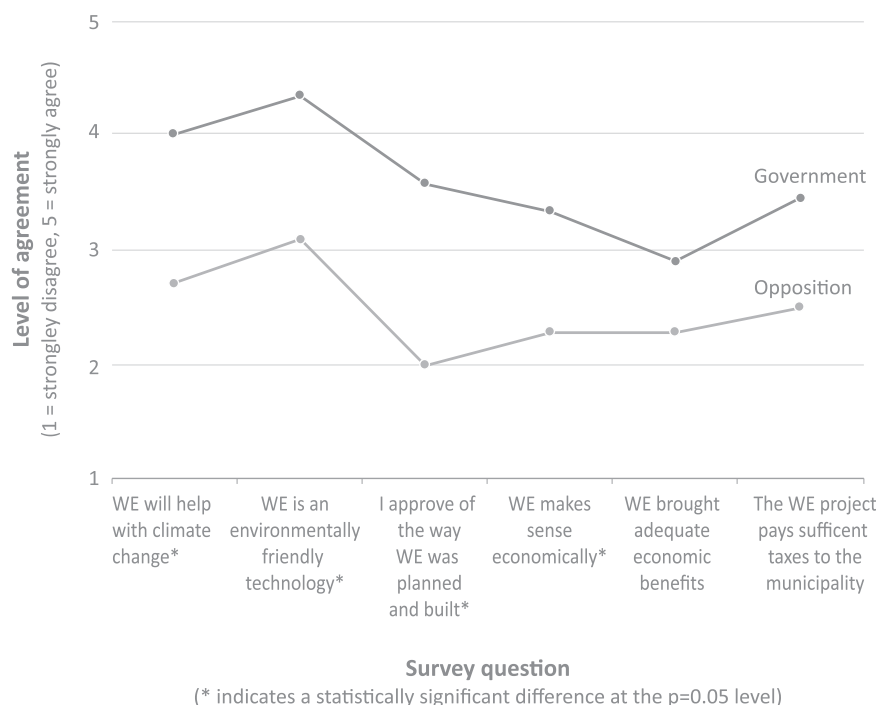


Fig. 4. Perceived benefits of local wind energy (WE) development by political affiliation in Ontario.

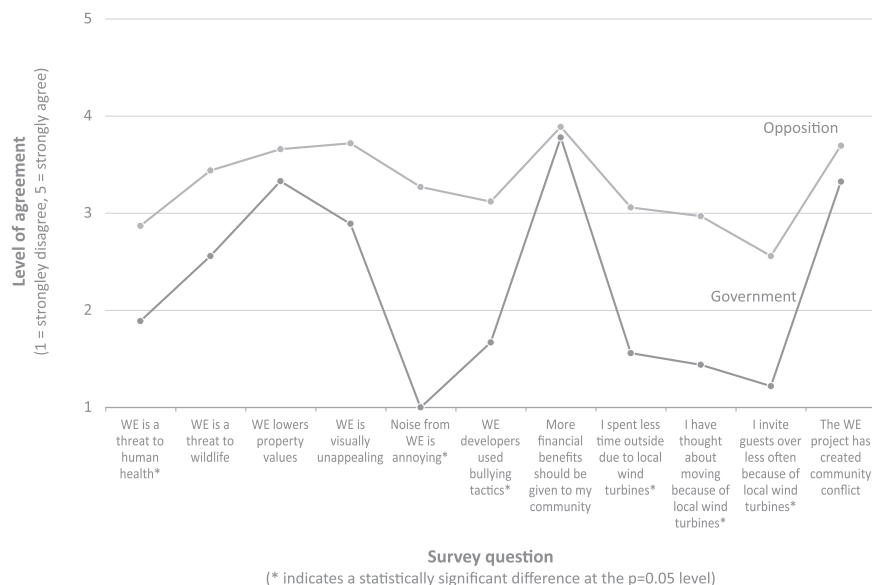


Fig. 5. Perceived costs of local wind energy (WE) development by political affiliation in Ontario.

Interviews with developers and politicians also revealed some larger geopolitical implications of the debate surrounding wind energy in Ontario. “Angelo” works for a European wind energy developer that has recently set up offices in Canada. Even as a Progressive Conservative, he sees problems with the way in which party leaders spoke about renewable energy during the 2014 election in Ontario:

“Angelo” (ON): I mean let’s be honest the Conservative Party tried to win based on many things but also based on their rhetoric about renewable energy and they were thoroughly defeated because some of the statements just didn’t make sense and I say that as a supporter of the Conservative party.

“Angelo’s” experiences living and working in different countries across the world also gave him a unique perspective on why the province has seen such a steep rise in opposition to wind energy. Part of the

reason, he suggests, is the partisan divide that the PC party has created:

“Angelo” (ON): I think it’s absolutely ridiculous to have such a partisan divide on renewable energy. If you look at Prince Edward Island, if you look at Germany, if you look at Denmark [renewable energy] has been taken out of the political arena. All parties support, they may have different approaches, but all parties support green energy.

...don’t tell me that, you know, it is bad to close the coal-fired plants and it’s bad to put solar panels and wind energy and biofuel energy into the rural areas. That can’t be your message.

Reinforcing this sentiment, Nova Scotia is strikingly non-partisan. In her efforts to stop the local project in her community, “Janice” and other community members ran into problems due to the government’s mandate for energy production. She describes a situation where there is

a 40% renewable energy target by 2020 and because all parties seem motivated to reach it, they are “following the exact same footsteps”.

“Janice” (NS): Because this originally was the NDP's project- it was their government that brought in this COMFIT plan and we've spoke to the Liberal leadership and they seem to be following the exact same footsteps that the NDP did and we made no headway there. (Laughing)

Because all three parties supported renewable energy in principle, government officials seemed to be less willing to act on “Janice's” concerns. A lack of a political divide in Nova Scotia thus limited the opportunities for people like her to object to and resist the kind of wind energy development occurring in the province. Whether through concerned citizen groups or members of provincial parliament, it is easy to imagine the great support she would receive in Ontario if she had similar concerns there.

4. Conclusions and policy implications

This mixed method, comparative case study sheds light on the issue of how political forces and wind energy development interact — a relatively understudied aspect of the social acceptance of renewable energy projects literature. The Wüstenhagen et al. (2007) framework provides a good theoretical base from which to study the intersection of sociopolitical and community dimensions of social acceptance in renewable energy. Our study adds nuance to this framework by highlighting how politics are tied specifically to: partisanship (left-right and government/opposition) and geography (urban/rural). This adds some complexity to the processes that bolster support and opposition for wind energy developments in particular (e.g. Bell et al., 2005; Devine-Wright, 2005; Rand and Hoen, 2017). It also contributes more generally to the mostly European environmental policy literature that shows the impact of ideological associations on support for low-carbon futures (Dharshing et al., 2017; Sposato and Hampl, 2018; Tabi and Wüstenhagen, 2017).

Our results show that support and opposition to wind energy is intertwined with politics in Ontario, sometimes weakly, but not in Nova Scotia, and the differences may be attributed to the varied political contexts. We caution that our sometimes weak or insignificant statistical findings regarding partisanship must be tempered by *actual* political decisions which mark a dramatic, ‘180-degree shift’ in policy that has for the moment stopped further large-scale wind turbine development in Ontario. In that province, levels of local support seem to be especially pronounced along government/opposition lines of political cleavage. It was not simply a left-right issue, but more a governing party (Liberal) versus every other party type of wedge. These results contrast with the findings of Anderson and Stephenson (2011), who suggest that *general environmentalism* follows the left-right pattern in Canada. Our work also provides nuance to research from the U.S. (Bidwell, 2013) and the UK (Carter and Clements, 2015) which suggests anti-wind turbine sentiment is driven by conservative politics alone. Thus we question the application of work from Jost et al. (2009) and Thorisdottir (2007) which suggests preference for the status quo and resistance to change (e.g. an anti-progressive energy policy) is something reserved exclusively for those with conservative viewpoints. As Doug Ford's early moves as Ontario Premier show, it is likely that these ideas do set up barriers to the growth of wind and other renewable energy, but so can local politicians' stances against sitting governments' policies.

Further to the government/opposition party hypothesis, our findings show a very slim majority support for turbines among those associated with the Liberals that passed major reforms in Ontario, and high levels of opposition from other party adherents on *both* the right (PC) and left (NDP). This is all in the context of overall declining support for turbines among locals in Ontario regardless of party affiliation (Walker and Baxter, 2017c). In addition to reaction against the policy itself, it seems that political competition and rhetoric are powerful

forces shaping, or at least reinforcing, local opinion. This adds nuance to the Ontario-based work of Stokes (2016), by introducing the idea that experiences and related information regarding wind energy can be filtered through a partisan lens in a mutually reinforcing way (i.e., listening and believing what provincial leaders are saying). This nuance aligns well with Bolsen's (2014) work on *partisan motivated reasoning* which found that the politicization of US energy law ‘slants’ public opinion in ways that would not occur under a consensus where differentiated party cues are not available. This type of consensus is similar to ones we see in European countries such as Germany (Paul, 2018) where issues have in some ways been taken out of political arenas.

Evidence from Nova Scotia suggests that in the absence of divisive political rhetoric, rural communities may be just as likely as their urban counterparts to support wind energy. Opposition at the local level certainly exists, but it does not get widespread traction — likely because of the endorsements of wind energy by all political parties. A key ingredient to this coming together is that the first major renewable energy policy was put in place by the party least expected to do so — the Progressive Conservatives (Pasha, 2014) — so the other two parties perhaps felt they had little choice but to carry the policies forward to appease their political bases. This research also adds depth to the landmark study on ‘electoral backlash’ in rural Ontario which suggests that the governing Liberal party lost thousands of votes due to their technocratic policy approach to wind energy (Stokes, 2016). Stokes finds that rural ‘policy losers’ amplified their voice and punished the Liberal party — an idea further supported by the recent election of a majority Progressive Conservative government. Our analysis in this paper goes further to argue that political setting and associated rhetoric may also be responsible for the rise in opposition movements.

While our focus is on politicization and understanding partisan or government/opposition patterns, our findings about the latter suggest another geographic aspect of wind energy policy support patterns. High levels of local support in Nova Scotia may also be attributed to the lack of a rural/urban political divide in the province. In Ontario, the politics of anti-industrial development in rural areas, and claims of NIMBY from urban quarters, seems to be combining with the pre-existing geographical division of partisan support to further fuel dissent and promote opposition to wind energy. As outlined in the work of Walker et al. (2018), the divide seen in Ontario may be related to an intensified form of environmental injustice whereby the decisions of ‘urban bullies’ are more severely affecting rural landscapes than other, less visually and aurally prominent, rural industrial developments. Because most energy is now consumed in urban communities, some have said that local opposition is an inevitable consequence of distributed, renewable energy whereby scalar mismatches in benefits and costs can develop. Indeed early literature summarizing research from across the world suggested large benefits for global society with the majority of the costs and relatively few benefits falling on locals (Krohn and Damborg, 1999). Yet related work in Canada suggests that fairer benefit schemes that advantage more locals directly (Walker and Baxter, 2017a) and include more community-based planning (Walker and Baxter, 2017b) may help redress some of the imbalance, if not some of the lack of acceptance of turbines and other renewable installations. Though benefits may be distinguished from fair policy (e.g., meaningful participation) they can go hand-in-hand. There is now ample evidence that processes perceived to be inclusive, meaningful, and fair increase local support for wind energy, findings that come mostly from European literature (e.g. Bell et al., 2013; Cowell et al., 2011; Enevoldsen and Sovacool, 2016; Jobert et al., 2007; Sovacool, 2009; Walker and Devine-Wright, 2008; Warren and McFadyen, 2010; Zoellner et al., 2008).

4.1. Limitations and further research

There are at least two limitations to this study that may serve as springboards for future research on the politicization of renewable

energy transitions. First, studies should be designed explicitly to test some of the core ideas here. Our work in this paper came out of an exploratory study, in which politicization emerged as an issue rather than as something we set out to study explicitly. For example, a wider array of case studies and even multiple international case comparisons could be built into the initial design. Ours was meant to explore the impact of two policy regimes, while future work could identify cases based on political support for renewable energy across party lines to more thoroughly test some of the hypotheses here. Those with expertise in political messaging and partisanship in particular should study these phenomena more explicitly through larger data sets and by including political parties of all stripes — including those relevant to environmental issues such as the Green Party in Canada. Understanding the timing of major policy decisions and which party is making them may also provide good questions for further inquiry. In relation to an urban/rural divide and the importance of geography shown in this paper, future studies should also concentrate on this concept through themes of rurality (Woods, 2010) and the evolving definition of environmental (in)justice (Schlosberg, 2013). Like the research of Walker et al. (2018) shows, as rural communities around the world become smaller minorities, power may be lost to urban-based decision makers and policy interests.

Second, despite the fact that we found statistically significant differences across some of the major questions of politicization, we suggest that future work should more precisely measure political preference and in doing so, increase sample sizes. Like work by Dharshing et al. (2017) in Switzerland, asking participants outright for their political affiliation proved difficult and so perhaps indirect questions, and stressing anonymity may increase responses in further studies (Everett, 2013). This is as much a measurement issue as it is a response rate one, whereby our original resident sample of 240 was reduced to 135 due to non-response. As many rural communities are sparsely populated such expanded work is challenging, but this would enable more elaborate quantitative modeling. Techniques to increase response rates may include pre-notification, follow-ups, using the 'right' monetary incentive (Fox et al., 1988) and/or limiting the number of instructions prior to participation (Lesser et al., 2016). There is also the option to survey other 'nearby' residents within a radius of 5 or even 10 km. That said, we should continue to study locals closest to turbines — the most impacted — through in-depth, qualitative methods. A key drawback of provincial or national-level polling is that most of the participants do not deal with turbines on a daily basis.

4.2. Policy implications

An important implication for governments, developers and policy-influencers looking to increase renewable energy (acceptance) is the need to better understand the political arena in which development will occur and resist assumptions that align energy development issues strictly with political parties. If, as we suspect, residents of both provinces are being 'cued' by political messages (Converse, 2006; Kam, 2005; Sniderman and Bullock, 2004) regarding how to think about wind turbines — including the cue that all parties agree on the basic way forward (Nova Scotia) — this may have great importance for the future design of energy policy and development. It has been shown that crafting messages and tailoring frames to identify with local politics can increase policy effectiveness (Druckman, 2011; Feinberg and Willer, 2013; Madrian, 2014), especially in the early stages of policy introduction (i.e., because initial framing may have a large influence on opinion over time; see Dharshing et al., 2017). For example, in Europe and the US, (re)framing renewable energy policy and development around ideals of local property rights (Jepson et al., 2012; Tabi and Wüstenhagen, 2017), or purity (Feinberg and Willer, 2013), has been shown to have more sway than environmental messaging during project siting processes in conservative areas (see also Hahnel et al., 2018).

All of this being said, local context — how developments are rolled

out in particular places facing specific circumstances (e.g., massive job loss, predominantly home to vacation properties) — matters. Especially as wind energy becomes cost-competitive, politicians should design policy that ensures significant local financial benefits result from development. That the Green Energy and Green Economy Act of Ontario is better known simply as the Green Energy Act is perhaps indicative of a lack of local benefits in 'wind turbine communities' — at least at the local level. The encouraging findings from Nova Scotia regarding wind energy acceptance highlight the advantages of non-partisanship. Legislators moved quickly to focus on the much-lauded idea of community-based renewable energy development. That the policy was halted gives us pause to think about why. These governments would be further served by critical examinations of the ways community-ownership can (and cannot) be realized.

In terms of the bigger picture, Hornsey et al. (2016) note that understanding and appealing to unique political ideologies of individuals may provide the best solutions in terms of reconciling partisan leanings and issues related to the environment. This kind of phenomena seems to have occurred in the conservative US state of Texas, where right-leaning residents embraced wind energy because it was promoted to fit with their ideals of individual property rights and economic benefits. That the residents there resented being called 'green' and did not value the ecological benefits of turbines suggests wind energy support will not come only from those looking to address climate change. Finally, this study showed that at least in terms of wind energy, what it meant to be a conservative in Nova Scotia differed dramatically from Ontario. The important lesson here is that the views of a liberal or conservative are not consistent within a small community — let alone across national or global jurisdictions. For policy-makers and developers, this means the need for an increased understanding of local context before the first steps toward development are taken. This will require more time, resources, and effort, however will undoubtedly present more opportunities to earn local approval through truly sustainable energy.

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