Social Dimensions of Renewable Energy Project Acceptance: Exploring Local Perceptions in Nova Scotia

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Abstract

This thesis explores the social dimensions of renewable energy project acceptance through semi-structured interviews (n=11) with participants associated with planned wind projects in Nova Scotia. For the renewable energy transition to be lasting and ethical, attention must be paid to the viewpoints of the stakeholders who are expected to live closest to developments. Interviews were themed around concepts of participation, justice and fairness, and attachments to local communities and environments. Results indicate that direct participation in project planning is less valuable to local community stakeholders than a planning process that respects their input and allows for altering project process outcomes. Personalized engagements based around open dialogues and willingness to compromise are identified as particularly valued traits for a socially acceptable planning process. Failure to heed the concerns of stakeholders runs the risk of enkindling wind energy project resistance in local communities and the wider province.

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Chapter 1: Introduction

Canada, along with the rest of the world, is currently at a critical crossroads. In order to prevent global warming from reaching 2°C, and to mitigate the worst effects of climate change, greenhouse gas emissions must be drastically curtailed. In order to do so, countries around the world are aiming to achieve net zero emissions by 2050. Pursuant to the aim of achieving this important target, the federal government of Canada has announced a goal of having its electricity grid be 90% non-emitting by 2030 (Environment and Climate Change Canada, 2022).

Nova Scotia is one province that has made renewable energy a core pillar of its agenda. Through the Environmental Goals and Climate Change Reduction Act, Nova Scotia has introduced one of the most intensive timelines for transitioning to clean energy—legislating a requirement of retrieving 80% of its energy needs from renewable sources by 2030. This is accompanied by phasing out all coal-fired electric plants by 2030 (*Environmental Goals and Climate Change Reduction Act,* 2021*,* s7 (l)-(m)).

Within that commitment to clean energy capacity, wind energy is poised to play a large role. In 2022, wind energy in Canada grew 7.1% (1.8 GW) for a total of more than 15 GW installed capacity. Of that capacity, Nova Scotia accounted for 3.24% or 616 MW (Canadian Renewable Energy Association, 2022).

However, both Canada and Nova Scotia are currently lagging in their efforts. According to the Canadian Renewable Energy Association (2022), the annual growth of wind energy needs to be 3.8 GW in order to reach net zero by 2050. Meanwhile, in Nova Scotia, the province failed to meet a goal of fulfilling 40% of its energy needs from renewable sources by the end of 2022 (Withers, 2022a). In order for the province and

country to meet their ambitious goals, more renewable energy developments, including wind-based projects, will be required. The Halifax Regional Municipality, the largest municipality in Nova Scotia, has itself promised to contribute 280 MW in new wind projects by 2050 (HRM, 2020).

In 2021, the province announced the procurement of 372 MW of new wind power. Through a Request for Proposals (RFP) process, the procurement administrator for the province—Coho Climate Advisors—assessed and selected five projects to collectively provide that energy (Nova Scotia Rate Base Procurement, 2022). All five projects have submitted environmental assessments and been approved by the Government of Nova Scotia with conditions. All of the projects will begin operation by the end of 2025.

The projects are also all majority-owned by "one or more Mi'kmaq communities in Nova Scotia" (NSRBP, 2022, para. 7) Details on the exact structures of ownership as well as the distribution of revenue from the projects are not publicly available. Outside of the ownership by Mi'kmaq communities, these wind projects are similar to a conventional development: a large-scale energy project sited in a rural area by an outside private developer. Due to the larger size of the projects, the electricity generated from the projects will be fed directly into the province's transmission grid as opposed to the local distribution grid (Moris-Underhill, 2023).

Previously, the province had attempted a more distributed effort for its implementation of new wind projects. Through the Community-Feed-In-Tariff (COMFIT) program, Nova Scotia promoted the development of smaller-scale wind projects that prioritized ownership and investment by municipalities, universities, First

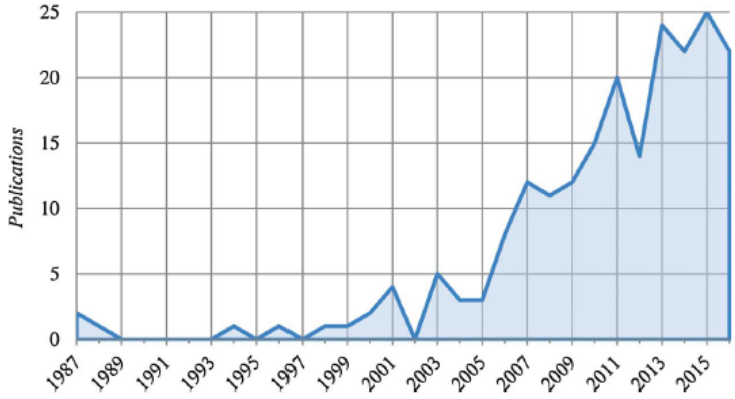
Nations, and non-profit groups. After adding 150 MW to the grid and $135 million in investment to Nova Scotia communities, the program was ended in 2015 (Nova Scotia Department of Energy and Mines, 2023). The current portfolio of wind projects represents the largest scale effort of the province in recent times to add more wind to the provincial grid, with projects that are larger in scope than the COMFIT developments. While the COMFIT wind projects often had less than 10 turbines, these new projects range from 12 to 28 turbines in size (Nova Scotia environment, 2023a,b; Walker & Baxter, 2017b).

Considering the large area footprint of these wind projects, along with their 25 to 35-year lifespans, these projects represent a highly visible and considerably long-term alteration to their host environments (Nova Scotia Environment, 2023a,b). While these projects are necessary for achieving the country and province's climate goals, it is not sufficient to simply claim that local socio-environmental impacts are a necessary sacrifice for the greater good. Careful consideration is required to ensure that these projects do not lead to significant and durable community opposition nor a loss of trust in their implementors (Bailey & Darkal, 2018). Therefore, for the transition to renewable sources of energy to be successful and lasting, there needs to be an emphasis on not just environmental sustainability, but social sustainability as well. Exploring the social acceptability of renewable energy projects has become a key focus of energy transition research over the past two decades, with a particular emphasis on wind projects in North America (Figure 1). Within the assembled research, authors have identified both in North

America and abroad that there is a 'social gap' between the largely positive views of wind energy by the public, and high rates of local opposition (Bauwens & Devine-Wright,

Figure 1

Number of Works Related to Wind Energy Acceptance in North America Over Time 1987-2016



(Rand & Hoen, 2017)

2018; Bell et al., 2013; Rand & Hoen, 2017). As such, this work responds to a call for more in-depth explorations of the viewpoints of those members of the communities who live closest to wind projects, allowing subjective perceptions and experiences of wind projects to be better understood. (Rand & Hoen, 2017; Van-Veelen & Haggett, 2016). The announcement of these wind projects provided an opportunity to gain hands-on qualitative data from the communities located in the vicinity of the planned projects.

Through qualitative interviews, more depth and character can be sketched from the testimony of community members and stakeholders. In the words of Boudet (2019, p. 446), "such work can elucidate, for example, how opposition to a wind project is composed of local resisters, siting sheriffs, local pragmatists and siting compromisers — as opposed to simply describing people as supportive, opposed or undecided."

In the past, research tended to focus primarily on objectors toward wind developments, tacitly implying that negative attitudes toward wind energy developments merit investigation to be overcome while acceptance is uncritically accepted (Aitken,

2009; Ellis et al., 2007). More recent literature has begun from the premise that acceptance of projects is very much context-specific, and that viewpoints in a given area are dynamic in nature (Boudet, 2019; Roddis et al., 2018).

Although the title of this research specifically refers to the 'acceptance' of renewable energy projects, it should be noted that the goal of this research is not to reinforce a normative stance that wind energy (or any other type of renewable energy) is automatically desirable, and that opposition is something that needs to be eliminated. In this frame, opposition is less "a problem to be tackled," and more an opportunity to better identify best-practices for ensuring that future projects adhere to ethical and sustainable development (Aitken, 2009, p. 53; Janhunen et al., 2017).

This research has identified three major strands of research related to renewable energy projects that help dictate how acceptable a project is to local community members. The first major catalyst for acceptance is participation, the level at which community members are able to influence or control elements of the planning and implementation of a project (Clausen et al., 2021; Glucker et al., 2013). Enhanced participation is viewed as a positive for its substantive, instrumental, and normative benefits. It has also been suggested that affording a greater level of control to community members will result in a more positive view of the projection (Breukers & Wolsink, 2007; Janhunen et al., 2017). At the very least, a lack of participation has been cited as a cause for community opposition (Dwyer & Bidwell, 2019). Fast (2017) points to non-participatory processes as one of the main reasons why wind energy opposition is so obdurate in Ontario—and why over 100 municipalities have announced an unwillingness to host projects.

The following main theme identified as being highly influential for project acceptance is the perceived level of justice and fairness. This theme can itself be split into two main strands: distributive justice and procedural justice. Distributive justice is concerned with the fair allocation of a project's benefits and impacts across interested and affected parties (Carley & Konisky, 2020; O'Sullivan et al., 2020). Significant attention has been paid to the question of whether the renewable energy transition is disproportionately impacting those living closest to projects, and to what extent community benefits are capable of mitigating opposition (Aitken, 2010b; MacDonald et al., 2017).

Meanwhile, procedural justice ensures that the planning and implementation processes surrounding projects are conducted in a fair and open manner (Simcock, 2016; Walker & Baxter, 2017a). Beyond having the opportunity and ability to influence a project's direction, a procedural justice lens stresses that the projects should take care not to exacerbate any pre-existing inequalities (O'Sullivan et al., 2020; Ottinger et al., 2014). Authors have also criticized engagement processes that either downplay or actively seek to censor the voices of community members (Dietz & Stern, 2008; Dwyer & Bidwell, 2019).

Finally, even before local stakeholders begin to form their views on the projects themselves, their positions are already influenced by the connections that they have made with their environment. For one, a person's community—and the social networks and norms within— has an influence on whether they are more or less likely to support a renewable energy development (Fischer et al., 2021; Koirala et al., 2018). In addition, people form subjective understandings of the area that they call home (Oudes, 2022).

Depending on that understanding, incoming renewable energy developments have the potential to either damage their viewpoint of the local landscape or enhance it (Upham, 2018). Oftentimes, the viewpoints of residents are based on a longstanding history of the area, and what the local environment has been used for in the past (Buchmayr et al., 2021; Hammami & Al Moosa, 2021).

All in all, this research follows in the wake of the assertions of authors that the factors behind community acceptance of renewable energy projects are complex and diverse (Devine-Wright, 2013; . The simple rationale that opposition to wind projects is borne out of short-sighted self-interest is not sufficient for generating novel approaches to community-developer engagement.

This research project is an exploratory study using semi-structured interviews with 11 participants who have previously attended community engagement events for one or more of the planned wind projects in Nova Scotia.

Based on the major themes identified above, there are three research questions that guide this research:

1. How do local citizens view the renewable energy projects around them, and do they feel empowered to participate in their planning and/or implementation?
2. To what extent do concerns of injustice or inequality factor into local citizens' views of renewable energy projects sited nearby?
3. How do views of, and connections to, the local community or landscape influence acceptance of a renewable energy project?

A mixture of deductive and inductive coding was applied to the interviews, identifying the most salient viewpoints and concerns of participants in relation to the incoming projects, as well as wind projects with which they had prior direct experience.

As mentioned previously, the need for renewable energy developments is an urgent reality, and their necessity means that more and more communities will be suddenly contending with their presence. In order to ensure that local populations are not unnecessarily harmed by the activities of the renewable energy transition, close attention and care must be paid to the hopes and concerns of those who stand to be the most impacted. Through in-depth exploration of local community expectations, public officials and developers can make more informed and considered decisions that ensure that the projects implemented are sustainable both environmentally and socially.

Chapter 2: Literature Review

The literature collected in this review is sourced from a wide variety of disciplines including, but not limited to, energy policy, urban planning and environmental management, and legal studies. The works in this review are organized based on their contributions to themes of acceptance, participation, procedural and distributive justice, and connections to community and landscape. In order to capture an accurate depiction of the current state of the major selected themes, the literature search was primarily limited to works created in the last 15 years, with a significant number written in the last five years. In terms of their methodologies, the selected works are quantitative, qualitative, and in some cases, use a mixed methodology. Many of the works draw on different theoretical frameworks and models. The wide variety of methods, along with the observed lack of longitudinal studies have caused authors to deem the larger literature somewhat fragmentary in nature (Berka & Creamer, 2018; Boudet, 2019; Rand & Hoen, 2017). Despite these limitations, this literature review has been assembled to provide a broad overview of the major themes that have been identified as contributing influences for project acceptance and/or opposition.

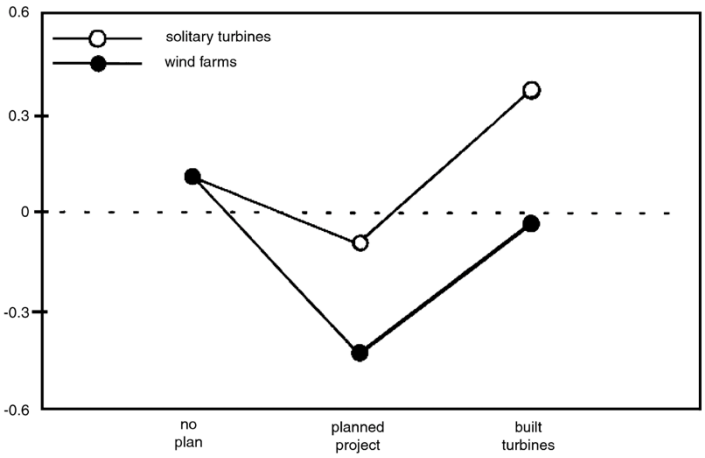
2.1 Introducing Acceptance and Evaluating Participation

Considering the importance of 'acceptance' to this research, a working definition must first be established. Ruddat (2022, p. 1686) outlines how "acceptance means a positive evaluation of a topic (like wind energy, wind turbines or wind parks) by individuals under certain circumstances (e.g., cultural or institutional context) that can have consequences for individual behaviour." There are also multiple dimensions of acceptance, including socio-political, community, and market (Wüstenhagen et al., 2007).

While socio-political and economic acceptance focus on larger scale public attitudes, political support, and economic calculations, community acceptance emphasizes the viewpoints of local residents and authorities living close to the projects (Wüstenhagen et al., 2007). As such, this research is primarily concerned with community acceptance—the "acceptance among stakeholders in local contexts" (Dugstad et al., 2020, p. 2; Ruddat, 2022). Acceptance (or lack thereof) toward a project is not always linear either. Wolsink (2007) introduces the idea of a 'U-shape curve' (figure 2) for local community project acceptance, wherein attitudes toward wind energy is generally high, then become critical once it is announced that a project will be sited in a nearby location. After a period of

Figure 2

'U-Shaped Curve' of Wind Energy Acceptance Over Time



(Wolsink, 2007)

time has passed, the viewpoints of community members then rebound and become more positive. However, Wolsink (2007) contends that the adverse reactions of community members are not due to a simple ''Not in My Backyard' (NIMBY) mindset—which denotes self-interested opposition toward an incoming development regardless of recognition of the benefits or societal necessity of the project (van Veelen & Haggett, 2017; Wolsink, 2007).

This study follows in the wake of authors who suggest that positive and negative attitudes toward renewable energy projects are based on complex interactions between multiple issues, including participation, fairness, and place attachments (Boudet, 2019; Devine-Wright, 2013; Wright, 2012).

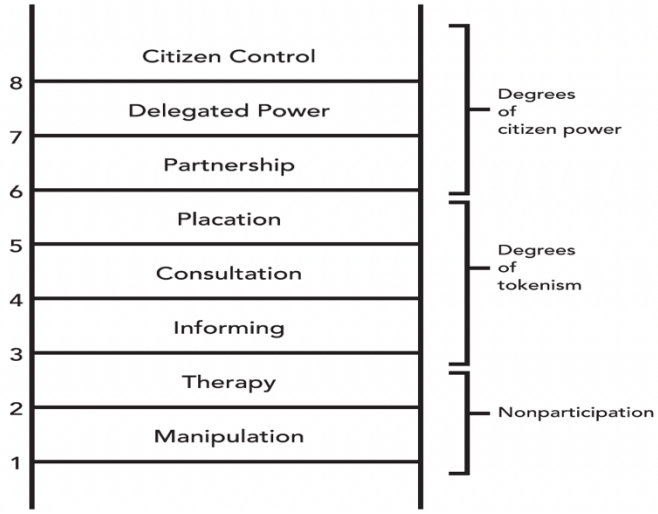
As previously mentioned, the first major contributor to the acceptance of a renewable energy project is to what extent it allows local stakeholders to participate in its planning and implementation (Dietz & Stern, 2008; Dwyer & Bidwell, 2019). Who and what exactly the term 'participation' refers to is not fully agreed upon. In terms of *who* is included in participation, some authors believe that the full range of the public should be able to participate if they are affected or interested in a decision (Dietz & Stern, 2008; Glucker et al., 2013). Relatedly, energy projects may solicit the participation of either those who reside in the immediate vicinity of the project (the 'community of place'), interested individuals who live a distance away from the project (the 'community of interest'), or a mixture of the two groups (Walker et al., 2022).

Dietz and Stern (2008), meanwhile, differentiate between the general public who may be interested in a project, and the 'stakeholders' who are directly impacted by a project's decision. Glucker et al. (2013, p. 109) further caution that there is no "homogenous entity" that encapsulates the public interest. Instead, there are a diverse range of actors who each bring their own expectations for participation, and thus more opportunities for dissatisfaction and, potentially, the abandonment of participation. As for *what* participation entails, Arnstein (1969/2019) has provided one of the most enduring contributions to the discourse surrounding citizen participation with her introduction of the 'ladder model of citizen participation' (figure 3). Within the ladder model, the range

of citizen participation ranges from the lowest rungs of simply manipulating the acceptance of a project by community members, all the

Figure 3

Arnstein's Ladder model of Citizen Participation



(Arnstein, 1969/2019)

way to sharing or offering full control of the process and decisions. According to Arnstein (1969/2019) many participatory processes in the past have tended to occupy the lower or middle rungs. As such, it is of interest of this research to ascertain whether the wind projects' participatory processes have offered local stakeholders more radical and transformative roles, or if they match the status quo. Despite the utility of the ladder model of participation for research concerning the involvement of local citizens in planning processes, authors have identified multiple limitations of the concept (Collins & Ison, 2009; Reed et al., 2018). For one, the ladder model assumes a general hierarchy of participation formats, wherein the upper rungs are unambiguously preferable to the lower rungs (Collins & Ison, 2009). In reality, participation processes are context-dependent, and providing full citizen control is not automatically more desirable than simply offering information to local community stakeholders. Second, a stakeholder's level of

involvement is not static, and their role can change based on the "construction of their interest (or stake) in the situation" (Collins & Ison, 2009, p. 362). For these reasons, authors like Robertson (1998) and Reed et al. (2018) suggest the use of a 'wheel' model of participation in which each category— participation, empowerment, information, and consultation—is not necessarily superior to another, but may be more appropriate depending on the context.

Although the definition of participation continues to be somewhat ill-defined, much of the renewable energy project scholarship agrees on its beneficial potential. Broadly, there are three categories of benefits that are derived from participation activities: normative, substantive, and instrumental (Dietz & Stern, 2008; Fast, 2017; Glucker et al., 2013). The normative benefit of participation can be described as fulfilling a democratic ideal, namely that the public should be able influence decisions that affect them, and that the members of society with the least influence are empowered to do so (Dietz & Stern, 2008; Ottinger et al., 2014). In keeping with this belief, Arnstein (2019, p. 24) argues that full participation entails the "redistribution of power that enables the have-not citizens, presently excluded from the political and economic processes, to be deliberately included in the future." According to Dietz and Stern (2008, p. 34), as pieces of public policy, it is both correct and often a matter of statute that decisions concerning environmental issues involve the "knowledge, values, and preferences of interested and affected parties."

The substantive gain from facilitating public participation in a project is the unique viewpoint and knowledge that local stakeholders can offer to planners (Aitken, 2009; Glucker et al., 2013). Failing to incorporate public viewpoints with scientific or

technical knowledge runs the risk of misrepresenting the local context (Dietz & Stern, 2008; Liu et al., 2022b). With the views and knowledge of local stakeholders considered, the assumptions and expertise of the project's proponents can then be tested to ensure their validity (Glucker et al., 2013). Drawing on human development theories, there is also a case to be made that participation activities allow for citizens to not only exert their influence on a matter, but to better understand what exactly it is that matters to them (Dietz & Stern, 2008; Liu et al., 2022b).

Finally, the instrumental benefit of participatory processes is achieved through the attainment of a perception of "legitimacy" (Glucker et al., 2013, p. 108). In practice, participatory processes need to not only provide stakeholders the opportunity to provide opinions and viewpoints but also visibly take them into account (Brennan et al., 2017). According to Glucker et al. (2018, p. 108), this necessitates planning be "transparent if/to what extent input from participants influenced decisions and based on which considerations and criteria decision-makers made their choices." With this transparency in place, it can help in fostering a 'social license' to operate in a community (Wright, 2012). Authors have also made the case that while those who "fundamentally oppose" wind developments are unlikely to change their positions, people with "conditional" acceptance of a project can be more positive of a project if they are able to have an impact on the planning process (Breukers & Wolsink, 2007, p. 2738; Liu et al., 2022b).

While the above benefits provide ample reason for developers to provide greater participation to regular citizens, there is also a question of what motivates people to participate in the first place. Kalkbrenner and Roosen (2016, p. 62) identify the importance of social norms, or 'the social pressure to perform or not perform the

behavior under consideration,' in the willingness of people to participate in renewable energy schemes. The authors postulate that a strong connection to, or identity with, the local community is followed by a willingness to adopt energy changes.

The same holds true among citizens in the Netherlands and Germany, where norms of environmental stewardship and altruism are key drivers of willingness to participate in renewable energy projects (Fischer et al., 2021; Koirala et al., 2018). Wirth (2014, p. 242) echoes these findings in their analysis of biogas cooperatives in Northern Italy, stating that they are carried through by the majority of the community on account of the local normative values of 'locality' and responsibility. The decision to have the project run collectively as a cooperative was viewed as being almost automatic, given the area's longstanding norm of projects involving the majority of the population (Wirth, 2014, p. 242). Through these pervasive norms, a connective social fabric is created that incites a willingness to participate in renewable energy schemes. It does appear that a longstanding social identity of care for the natural environment is commensurate with support for renewable energy projects. Considering that the wind projects observed in this research are located in rural areas, it will be investigated whether the views of the environment by local residents have an impact on project acceptance.

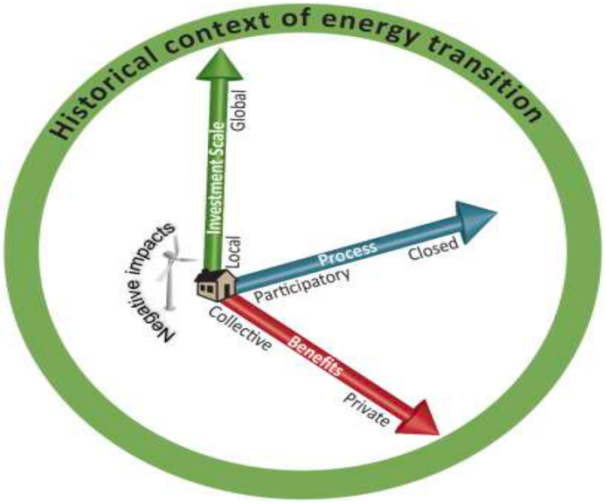
In order to gauge the actual level of local community participation in a given project, Walker and Devine-Wright (2008) present a model to identify dimensions that dictate how community-oriented an energy project is. The model involves a process dimension (who runs the project and who has influence); and an outcome dimension, or who benefits from the project in "economic or social terms" (Walker & Devine-Wright, 2008, p. 498). The authors place a traditional wind farm at one extreme of the spectrum,

the farm being both distant and private as well as closed and institutional. On the other end, an ideal community energy project is one that is open to diverse participation: "carried through by a group of local people and which brings collective benefits to the local community (however that might be defined)" (Walker & Devine-Wright, 2008, p. 498).

Baxter et al. (2020) provide an evolution of the model proposed by Walker and Devin-Wright that positions local, participatory, and collective projects at an origin point (Figure 4). This origin point can be said to correspond with the upper-right quadrant of Walker and Devine-Wright's model, where an ideal community energy project would be located. The process and outcome dimensions of the Walker/Devine-Wright model have

Figure 4

Reconceptualized model for key dimensions of local community wind energy acceptance



(Baxter et al., 2020)

also been iterated on through the inclusion of four different continuums: investment scale, process, benefits, and negative impacts.

From the models presented by Walker and Devine-Wright as well as Baxter et al. (2020), it would be expected that the wind projects of interest are primarily private,

institutional, and thus distant from the local origin point when it comes to benefits and investment. What remains to be seen is if these projects processes can be said to be participatory in their processes, and what the resulting impact is on local project acceptance.

Echoing Arnstein's (1969/2019) earlier observations, Dwyer and Bidwell (2019) recount that while almost all social or environmental projects in the US are subject to public engagement processes, they often do not offer meaningful participation due to their lack of opportunities for genuine engagement. Instead, contexts like open houses and public comment hearings offer "little opportunity for authentic discourse on issues and promote an unproductive one-way flow of information" (Dwyer & Bidwell, 2019, p. 167). In the worst cases, a process put forward under the guise of participation is in actuality a post hoc rationalization of a planning decision that has been made unilaterally without any input from stakeholders (Dietz & Stern, 2008; Hughes, 1998).

As an example, Fast (2017) describes the case of Community Liaison Committees (CLCs) in Ontario for the development of wind projects. The project developers unilaterally (and opaquely) establish a committee headed by a spokesperson who primarily acted as a representative of the project as opposed to an independent mediator (Fast, 2017). In terms of their transformative potential, the CLCs are primarily concerned with the dissemination of information rather than introduce an arena for genuine critique and collaboration. Overall, the CLCs are essentially a 'tick-box exercise' meant to undergo the minimum requirements for the implementation of a project (Macdonald et al., 2017).

Fast (2017) theorizes that the muted efforts of Ontario to increase participatory approaches is related to a belief that the wider population is largely supportive of wind developments. Through this lens, the participatory activities are performative in nature, meant only to reassure the wider voting public that the developments are benevolent despite outspoken critics among local stakeholders (Aitken, 2010a; Macdonald et al., 2017). In seeking to avoid what are perceived as common 'NIMBY' complaints, the response from developers in Ontario has been to remove decision-making capabilities from areas "prone to opposition-related delays" (Fast, 2017, p. 391).

Even if local community stakeholders do not have the final say over a decision, a positive impression can still be made if stakeholders believe that they do have a tangible effect on the end result. In their case study, Dwyer and Bidwell (2019) point to the decision of developers to move offshore wind turbines based on geological and social impacts as directed by a public policy document. Although the decision was not the direct result of the testimony of locals, it was still influenced by a policy process that had received "direct public influence" and an area for the turbines was selected that would lead to minimal negative impact on stakeholders (Dwyer & Bidwell, 2019, p. 174).

2.2 Justice

The importance of community participation in renewable energy project planning is also tied to ideals of justice and fairness. In applying an ideal of justice to the field of renewable energy generation, Sovacool and Dworkin (2019) draw on the perspective of German sociologist and philosopher Jürgen Habermas. The Habermasian ideal of a just society is predicated on free participation and open communication among all stakeholders. This approach of justice built on "mutual trust, comprehension, and social

capital" stands in contrast to a technocratic perspective wherein objective knowledge is the sole providence of experts (Sovacool & Dworkin 2019, p. 207). Authors in the field of renewable energy research similarly agree that for projects to be valid, there must be a concentrated effort to involve regular citizens in the planning and implementation processes of projects (Bailey & Darkal, 2018; Simcock, 2016). Beyond the inclusion of local stakeholders in the planning process, the actual process itself must also be conducted in a fair manner.

2.2.1 Procedural justice

Procedural justice refers to the inherent fairness of the project's siting and planning process. In practice, procedural justice is described by authors as involving the following elements: meetings are accessible, decision-makers recognize contributions from citizens as legitimate, and the final decisions on projects are influenced by public input (Dwyer & Bidwell, 2019; Ottinger et al., 2014; Walker & Baxter, 2017a). In addition to those elements, Ottinger et al. (2014) argue that the planning process should address any pre-existing power inequalities. What procedural justice contributes to is a relationship of trust between local stakeholders and project developers, particularly if stakeholders do not possess the requisite knowledge to judge the technology on its own merits and drawbacks (Lennon et al., 2019). The level of trust that community members hold for a project is evaluated early in the process and begins first with the approval (or lack thereof) of the figures behind the project (Dwyer & Bidwell, 2019). The chain of trust then continues with how the community members perceive the project process and its outcomes.

According to Liu et al. (2020, 2022a), community members form trust in energy projects and their processes by assessing the level of integrity and competency that is on display. Integrity-based trust refers to the belief that the developer is honest and is cognizant of the potential harms for the host population. The more people trust that the group facilitating the project are transparent and considerate of public interest, the more likely it is that they will accept the decision-making process and in turn the project itself (Liu et al., 2020; Segreto et al., 2020).

Integrity-based trust is joined by competency-based trust: the confidence that the developer possesses the knowledge and skills to implement the project effectively. Liu et al. (2020) posit that this aspect of trust may be of lesser importance unless stakeholders have had direct experience with a developer that the stakeholders had, for whatever reason, deemed to be technically incompetent.

Without confidence in these attributes in developers, the foundations for trust and acceptance by stakeholders are unstable. Firestone et al. (2020) provide an excerpt from one interview where the participant found that some of the community was dissatisfied when the developers were unwilling to answer certain questions early in the planning process. The participant surmised that the developers were simply not willing to commit to a publicly recorded answer without being completely certain, but the effect on the assembled stakeholders was a sense that the developers were either incapable of answering, or, more troublingly, had something to hide. Brennan et al. (2017) complement this anecdote with their finding that multiple contrasting accounts of a project from developers risks confusing stakeholders, culminating in the stakeholders concluding that ‘they are being sold a pack of lies’ (Brennan et al., 2017, p. 1981).

Crucially, a citizen may only wish to speak to the project's authorities if they are confident that their opinion will be fairly acknowledged and considered. In their research of wind projects in the province of Ontario, Walker and Baxter (2017b) found that often, all that is required to select a site for a project is to receive permission from local landowners. The surrounding municipalities have thus been marginalized in the decision-making process, sometimes in direct opposition to the wishes of the governing municipal bodies. A similar finding was made by Welton and Eisen (2019, p. 359) in the United States, where the federal government has allowed for the expediting of renewable energy permits—effectively allowing them "to skip or shorten several of the steps that conventional energy resources must go through-thus eliminating key venues for vindicating the values of procedural justice." The willingness of state actors to override local arenas in debating the merits of the siting of a clean energy project is reminiscent of an unjust technocratic perspective described by Sovacool and Dworkin (Bailey & Darkal, 2018; Walker & Baxter, 2017a). In the same vein, discussions around wind projects in the past have been found to prioritize the testimony of experts over lay accounts by local citizens. In some cases, this has led local community members to tailor their arguments in the belief that appealing to more emotive rationales will fall on deaf ears (Bailey & Darkal, 2018; Liu et al., 2022b).

Outside of the trust that is generated by the level of fairness in the overall process, one potential aid in the facilitation of a community project is the presence of a trusted relationship between specific community members and developers. This trust can be referred to as the "affinitive trust" that develops between a trustor and trustee over the course of repeated interactions (Hamm, 2017, p. 920).

Simcock (2016) describes how people in a community who visited the exhibitions for a community wind project were positive of the fact that they were able to have a face-to-face dialogue with the project representatives. In speaking directly to the developers, the visitors were able to 'put a face' to the project and remove some of the 'cloak and dagger' of the process (Simcock, 2016, p. 475). This is in contrast to the testimonies of the community members who did not visit the events, and found that they had difficulty in trusting the project developers speaking just over the phone and felt not as informed (Simcock, 2016). Dwyer & Bidwell (2019) also find that visitors to engagement events appreciated the ability to speak personally with developers. However, the activities that tended to reinforce the most positive perceptions of a project were informal in nature. Being able to ask questions outside of formal events allowed the community members to ask more personal questions that were perhaps not suited for a larger organized event (Dwyer & Bidwell, 2019).

Another method for facilitating this affinitive trust is an intermediary between the community and the developer, who can leverage their history within the target community (Creamer et al., 2018; Liu et al., 2020). In the case of an offshore wind project in the US, Firestone et al. (2020) show that the presence of a community liaison is an effective method for instilling greater confidence in the project. Having a knowledgeable and accessible community figure on hand for locals helps instill trust in the project. Notably, the main community liaison described by Firestone et al. (2020, p. 7) had resided on the host island for thirty years before being involved with the project—the longevity of the liaison's ties to the island likely being a factor in their acceptance by fellow residents.

Alternatively, a deep mistrust in the overall process will only cause further doubt to be cast on the efforts of developers to engage with the community. Trust in institutions and the people within them can be lost easily, and regaining it is often extremely difficult (Ruddat, 2022). From a position of suspicion, community engagement activities are more likely to be viewed as attempts to head off community opposition rather than genuine offers of consultation or collaboration (Firestone et al., 2020). In investigating the same offshore wind project as Firestone et al., Dwyer and Bidwell (2019, p. 173) report that while community liaisons were largely viewed positively, there was a small number who expressed concerns that the liaisons were 'bought' as supporters of the project implementors.

Even in a negotiated process, attention still needs to be paid to the potential for an unfair outcome as a result of disparities in influence and power between large companies and, often, small rural communities (Welton & Eisen, 2019). As a result, the fairness of the process of negotiating benefits is paramount. As an example, MacDonald et al. (2017, p. 179) describe a "community trust" in the Scottish town of Glenburn that controlled the disbursement of community benefits. According to local community members in Glenburn, the trust was comprised of just four representatives (MacDonald et al., 2017).

The result was that residents felt that the trust group did not adequately represent the full geographic community, nor did they do enough to raise general awareness of the community benefits fund so that people could apply for it. For those that did apply, the trust granted money primarily to small-scale one-off ventures, such as day trips scout groups and a local nursing home. Interviewees reported that they desired to see more tangible and long-lasting 'legacy' projects, such as the construction of a community

infrastructure project (MacDonald et al., 2017, p. 183). Overall, there was a lack of input from the wider community in the elements of the benefits package, as well as a perception that the final decision was in the hands of outsiders and not the 'rightful' community members.

In some cases, 'participatory' processes are at cross purposes to citizen empowerment. These paradoxically disenfranchising participation activities are usually carried out only to have public's input not factor into the final decision. Decision makers then rationalize their decisions after the fact by claiming that those who participated were able to contribute, and those who did not 'had their chance' (Dietz & Stern, 2008, p. 53). In a similar vein, there may also be a tendency by developers to claim that any resistance to a project is confined primarily to 'deviants' or 'radicals' in the community (Aitken, 2010a; Macdonald et al., 2017).

This rationalization only makes it more likely that actually legitimate grievances among community members will not be given their proper due. Walker and Baxter (2017a) find that the perceived level of control over project decisions is a major determinant of whether Ontario and Nova Scotia residents support local turbine siting processes. Where a citizen feels that their input has no agency in the outcome of a project, there is likely to be considerable disappointment and anger (Dwyer & Bidwell, 2019; O'Sullivan et al., 2020; Staupe-Delgado & Coombes, 2020; Walker & Baxter, 2017a). This unsatisfactory outcome is sometimes referred to as a 'done deal', where it appears that no amount of "community outcry or opposition" can dissuade the activities of the project (Firestone et al., 2020, p. 8). In the case that people perceive that their concerns are not being adequately addressed through existing processes, as Dietz and

Stern (2008, p. 35) mention in the context of environmental planning, people can and will become politically active outside of those processes in their own "claimed spaces" where they can better press their viewpoints (Clausen et al., 2021, p. 746).

Firestone et al. (2020, p. 5) report that many residents of Block Island perceive that the reason why the island was selected for an offshore wind project is the small year-round population. Even supporters of the project suspect that the island was selected partially on account of its smaller population—and thus, lower ability to mount as much resistance as other potential locales. Bell et al. (2013) contextualize this claim with their finding that, on average, wind energy developments are more likely to be resisted successfully in areas that experience higher life expectancy, voter turnout, and private sector employment levels. In other words, an area with more resources, economically and legally, is better equipped to resist a development. The lack of negotiating power available to smaller, often rural, areas is emblematic of a case of intentional continued peripheralization (O'Sullivan et al., 2020).

However, while a smaller rural area may be selected in part for its lower capacity to mount resistance, there is evidence that local populations are far from completely helpless. Indeed, even if developers can, for the most part circumvent social barriers to their activities, the fact remains that the associated costs are high (Bell et al., 2013; Breukers & Wolsink, 2007). Staupe-Delgado and Coombes (2020) write of a planned wind park on the Norwegian island of Haramsøya that is fiercely contested by the island's population of 500 residents. Despite the minuscule number of locals, the group has significantly more supporters across sympathetic networks and has cost the energy company responsible for the project millions of dollars in responding to their activities.

Alternatively, legal challenges to a project can cause significant costs and complexities for developers. In the UK, Munday et al. (2011), cite that wind projects can incur costs of £150,000-£200,000 in the event of a public inquiry. Closer to home, Fast (2017) mentions that out of the 29 wind projects with CLCs observed in Ontario, 25 were subjected to legal appeals from the public. Although only a single project was successfully appealed in the end, the appeals can linger in the courts for years (Fast, 2017). It is clear that while a developer may be able, in most cases, to successfully site a project despite community opposition, there are considerable risks that come with attempting to force a project through. Beyond the operational drawbacks for a specific project, there is also a possibility that negative accounts of project management will spread in a region, forming a durable local anti-wind establishment, especially if the sentiments rise up the chain of government decision-making (Walker & Baxter, 2017a).

2.2.2 Distributive Justice

Distributive justice is concerned with the fair distribution of the benefits and impacts of a development (Walker et al., 2014; Walker & Baxter, 2017a). A distributional justice lens also emphasizes the need to address pre-existing social inequities in the context of energy so that inequality is not further exacerbated by a transition to renewable sources (Bailey & Darkal, 2018; O'Sullivan et al., 2020).

The end benefits of a project can have significant ramifications for its acceptance by the local community. A project led by and intended to benefit a fair portion of the local community is much more likely to receive approval than a project that acts as an "entrepreneurial money scheme" for a select minority of the population (Macdonald et al., 2017; Walker, 2010, p. 2662).

Community benefit funds that provide economic compensation to those living closest to wind farm projects may have beneficial effects on attitudes, provided that the funds reach their "specified target groups" (Johansen, 2019, p. 699). On the other hand, community benefit funds also have an outsized potential to be perceived as being tantamount to bribery by critics (Aitken, 2010a; Macdonald et al., 2017). Walker et al. (2014, p. 51) suggest that community benefit funds are particularly vulnerable to negative narratives (such as allusions to 'bribery') in the event of "dual-framing conditions." When residents are exposed to both negative and positive depictions of a project, the negative framing is more likely to become dominant. To avoid the possible perception of bribery, Aitken (2010b) suggests that there should be a common standard package for community benefits. With this common standard in place, developers may be more likely to be perceived as complying with a routine aspect rather than attempting to placate the local community to further their own ends.

However, Macdonald et al. (2017) cite that a common refrain of developers and communities is that the specific benefits of a project should be negotiated between each other rather than stipulated by a common standard decided by a third party. Rudolph et al. (2018, p. 107) similarly contend that the distribution of benefits to the community should not be seen as an end in and of itself, but one aspect of an ongoing process of "early and thorough engagement with local communities."

When it comes to the larger economic power dynamics of renewable energy project siting, rural areas are often targeted for their abundance of natural resources. Meanwhile, local actors are often hard-pressed to refuse the promise of external economic investment even as the lion's share of profits are retained by the developers in

more central urban areas (O'Sullivan et al., 2020; Roddis et al., 2018). On the other hand, public-sector-led energy transition activities like funding for community energy projects may be more likely to skip over rural areas for more populated urban areas that provide more economic value. In the words of one public-sector energy authority, they 'would always try to hit an area where it looks as if we're likely to get a good return if possible' (O'Sullivan et al., 2020, p. 12). As a result of these unequal interactions, rural communities are likely to demand an answer for why they should be subjected to all of the burdens of a development, while the profits and generated energy flow outward to urban areas that are seldom asked to reckon with their own patterns of energy usage (Bailey & Darkal, 2018; Brennan et al., 2017; Carley & Konisky, 2020; Rand & Hoen, 2017). The worry of project benefits leaving the local area is particularly salient in the event that the project possess a large contingent of distant investors that are recipients of project benefits. In such a case, members of a community of interest are liable to be viewed by local community members as being tantamount to 'robbers' (Walker et al., 2022, p. 3).

Currently, little in-depth quantitative evidence has been produced to corroborate the claim that renewable energy projects meaningfully alter the economic status or resiliency of communities (Berka & Creamer, 2018; Rydin et al., 2015). Although a common advertisement of developers is that new developments will be accompanied by an influx of employment opportunities for locals, there has been evidence that the jobs generated by a project are low-skilled and short-term in nature (Silva & Sareen, 2021). More skilled employment opportunities may instead be offered to individuals brought in by the developer from outside of the local community (Munday et al., 2011).

Overall, there is a distinct possibility that the main revenue from a project will be largely concentrated in the hands of private companies and the small group of landowners who grant permission for construction on their property (Islar & Busch, 2016; Silva & Sareen, 2021). The wind projects of interest in this research have emphasized the creation of local employment opportunities and 'economic spin-off' toward local businesses from project activities (Natural Forces, 2023). However, more research is needed to ascertain whether these projects will have a verifiable impact on the local host communities' economic profiles. More immediately, this research seeks to ascertain whether these claims of economic enhancement have had any effects on the attitudes of community members toward the projects.

2.3 Community, Landscape, and place attachment

2.3.1 Community

As identified earlier in the literature review, willingness to participate can be influenced by the social connections and norms that people form around a project area. With that being said, the idea of a 'community' around a renewable energy project site carries with it multiple definitions and debates.

As mentioned by Walker et al. (2022, p. 6), there continues to be a "general ambiguity" within social scientific research concerning what a community energy project entails. In their review of the literature concerning community wind energy developments, Baxter et al. (2020, p. 6) observe that most community projects refer to the following: "(i) place (locality, or distance from turbines); and/or (ii) interest (e.g., a network of those interested in renewable energy broadly speaking)." In addition, many projects also base their community label on the idea of a community of place, or a

"geographically circumscribed group of people" (Baxter et al., 2020, p. 3; Walker, 2011). For the purposes of this research, 'community members' refers primarily to the residents that live in a particular locality at a relatively nearby distance from the wind developments. Nonetheless, there are also some interviewees who do not live nearby the current planned wind turbines and are, more accurately, members of a larger community of interest.

Per Creamer et al. (2018, p. 5), 'community projects' are often carried through by complex collaborations between "governments, public and private institutions, and communities." As a result, the governance features of community energy projects tend to differ widely even across geographic regions like Western Europe, where the administration of projects appears relatively similar. As multi-scalar links become more common, there is a concern that the 'community' actor of a community energy project will be marginalized, and their influence subsumed under more powerful actors. Even Nova Scotia's COMFIT projects have been noted to be somewhat removed from the local residents:

> These were not grassroots initiatives in the sense of small towns banding together to tell their governments they want favorable conditions to erect turbines, rather they are relatively larger municipalities and institutions responding to top-down policy and financial incentives. (Walker & Baxter, 2017a, p. 166)

For this reason, Walker and Baxter (2017a, p. 166) caution against the 'romanticization' of the community-based moniker. In the worst case, the term becomes little more than an "empty signifier" deployed to help a potentially controversial project head off resistance (Creamer et al., 2018, p. 9). In the past, the 'community' label has

been invoked for projects despite the lack of any specific features that would justify the term's usage (Baxter et al., 2020). As an extreme example, Baxter et al. (2020, p. 2) describe a project labeled as being community-oriented because the energy produced matches local consumption patterns, despite the energy flowing to other locations.

Community empowerment is described as a process of 'enabling communities to increase control over their lives [and] increase their assets and attributes and build capacities to gain access, partners, networks and/or a voice, in order to gain control' (Berka & Creamer, 2018, p. 3410). From this perspective, partial or full control over a project confers empowerment to a community. However, the evidence is inconclusive. While some projects may claim that ownership has provided power to the community, the actual effect remains difficult to quantify (Berka & Creamer, 2018).

Adding to the complexity, Johannsen (2019, p. 699) recounts how 'wind-farm co-ownership schemes' have been employed in Denmark. The issue is that the offer of co-ownership was expanded from those permanent residents living closest to the wind farms to summer homeowners who are "relatively" near to the developments. While the expansion of the program may provide considerable aid in helping to alleviate opposition from the larger community itself, it also opens the door to feelings of unfairness and resentment between residents.

Outside of the economic benefits, authors also caution that the power benefits of a project may only accrue to a select privileged few in the community (Lennon et al., 2019; Walker et al., 2010). Walker and Baxter (2017a, p. 166) also point out that while community projects in Nova Scotia may require investors to reside in the 'area' of the project, that area may encompass a very long range in a municipality that spans hundreds

of kilometres. In order to ascertain the true nature of power relations in a project, community-owned or not, it must be ascertained whether the full population has the ability to influence a project's course, or whether decisions are being held in the hands of a select few who are possibly remote from the project area.

Bauwens and Devine-Wright (2018) posit that the reason why favourable attitudes toward renewable energy develop in some areas is because they are communities of place, characterized by close interactions dictated by close proximity. Through close interactions between people and institutions, 'thick trust' is generated within a locality (Bauwens & Devine-Wright, 2018; Walker et al., 2010). However, much like how there is no single entity representing 'the public', there are often multiple communities within a single location (Walker et al., 2010). As such, a place is not intrinsically linked to one community, and the various communities "can be transient and dynamic and fracture as events unfold and relationships evolve" (Walker et al., 2010, p. 2658).

Speaking to the various ways communities and sub-communities can be affected by the siting of a renewable energy project, Walker et al. (2010) describe how a wind project in Wales led to both supporters and protestors strategically deploying narratives of 'insiders' and 'outsiders.' Interestingly, people on both sides of the debate cast the opposing side as the 'outsider' figure. For project supporters, the outsiders were those who were entering the area with the intent of raising land prices. Meanwhile, for detractors, the real outsiders were the project's main three facilitating farmers, who had no right to impress their project on the 'born and bred' members of the community (Walker et al., 2010, p. 2661). As a result, there is no guarantee that a given community's public support for hosting a project is representative of the entire population's feelings on

the matter. Under the surface, there may exist many differing relationships and tensions between community members that influence the level of acceptance or opposition toward a project.

2.3.2 Landscape and Place Attachment

Finally, outside of the social arrangements that people have formed around the places they live, there is also a need to examine the ways in which people subjectively interpret the environments that they live in and how they respond to the advent of an intrusive industrial development.

At this point in time, much of the literature surrounding community opposition toward renewable energy developments rejects the wisdom of relying upon the NIMBY concept when it comes to location-based opposition (Devine-Wright, 2013; Musall & Kuik, 2011; Ruddat, 2022; Sæþórsdóttir & Ólafsdóttir, 2019). For one, a key aspect of 'true' NIMBYism is a supportive opinion of the type of development in question—provided it is placed elsewhere (Rand & Hoen, 2017). However, protestors erroneously labelled as NIMBYs often do not reserve their ire for just the developments close to them. Instead, the disapproval is shared for all projects of the same type, no matter the location (Bell et al., 2013). Research has also found cases where some of the most ardent supporters are among those nearest to a development, demonstrating that close proximity to a project does not always correlate with oppositional attitudes (Buchmayer et al., 2021; Musall & Kuik. 2011; Wright, 2012). Considering the simplicity and lack of utility of the NIMBY concept, authors have more recently begun to examine the ways in which people construct more complex relationships to the environments that they live in (Devine-Wright & Howes, 2010; Upham et al., 2018).

Upham et al. (2018) describe ‘place’ as being part of individual and shared identities constructed out of historical or social meanings. While there is a ‘physical’ aspect to a landscape (landscape as an object), there is also a social component where the landscape as a subject is interpreted by dwellers based on personal history, norms, and beliefs (Oudes, 2022). From these interpretations, people form emotional connections to a location, and it becomes a part of their identity—representing place attachment.

Staupe-Delgado and Coombes (2020, p. 8) raise the point that for many of the inhabitants of areas selected for renewable energy projects, “this is not the frontline of climate change.” Any impacts felt by residents are likely to be related to a sudden and specific alteration to the local environment that affects their place attachment, namely, the siting of a development that brings with it noticeable and potentially debilitating visual and auditory externalities (Warren & McFadyen, 2010).

The immediate effects of a development are contrasted with the much more large-scale and subtle impacts of a changing climate. According to Brown et al. (2019), a powerful resource for instilling greater support in renewable energy installations is empathy. Drawing on the lived experiences of others can help to internalize the effects of climate change: “for many people, climate change and its impacts are still viewed as temporally and spatially remote, although personal experience – for example, of flooding – can help to bring the issue home in multiple senses” (Upham et al., 2018, p. 913). Thus far, Nova Scotia has been relatively spared from the worst impacts of climate change, though extreme weather events, such as Hurricane Fiona and 2023’s recent wildfires and record amounts of flooding, may induce greater reflection from local community members on the need for more intensive carbon-neutral energy generation efforts.

Considering the attachments people form with areas they live in, 'place protection' activities that portray incoming renewable energy projects as threats are often not motivated by a superficial NIMBY response, but close emotional bonds between people and places (Devine-Wright & Howes, 2010; Staupe-Delgado & Coombes, 2020). For example, Devine-Wright and Howes (2010) describe the case of an offshore wind development in Wales that threatened a 'restorative' natural area that allowed local community members an escape from the industrial landscape of the city. However, the degree of enthusiasm is likely contingent on multiple factors like personal and group political efficacy. With a low belief in political capability, a person may feel helpless to resist change and passively accept a development. More extremely, if a person feels sufficiently detached from a space that contrasts with their emotions or subjective formed meanings, then they may instead choose to abandon the area entirely (Devine-Wright, 2009; Staupe-Delgado & Coombes, 2020).

Upham et al. (2018) argue that the way forward for enhanced renewable energy uptake involves helping community members with forming new understandings of place, in which renewable energy developments are viewed as place-'protecting' rather than 'threatening.' This argument is borne out by the work of Devine-Wright and Howes (2010), who evaluate that the strength of attachment to a place will not invariably result in anti-development protectionism. Instead, the response to a development is dependent on how an individual views their subjective social context, and the degree to which they place trust in the institutions running the project (Devine-Wright & Howes, 2010; Song et al., 2019). For example, while a wind farm's inherently 'industrial' character clashes with

the natural beauty of a seascape area, it also represents potential for economic growth and urban renewal (Devine-Wright & Howes, 2010; Johannsen, 2019).

More broadly, perceptions of an energy development in a rural area may depend on whether or not the populace views the area as "a place of spiritual activity or as a place of economic activity" (Buchmayr et al., 2021, p.15). Authors posit that individuals support industrial developments like wind farms provided that the project fits with the area's local history (Hammami & Al Moosa, 2021; Chappell et al., 2020). Given enough time, people will develop landscape attachments even to industrialized anthropogenic features of the nearby landscape (Wolsink, 2007). For one village in Scotland, the physical presence of wind turbines acts as a symbol of the community's "image as a progressive community with a sustainable future" (Warren & McFadyen, 2010, p. 209).

It appears that a local history of nearby turbine siting helps Scottish residents to acclimatize to their presence, and, in turn, helps facilitate acquiescence to further project siting. These ideas are supported by Baxter et al. (2020), who posit that areas that have significant history with large-scale developments and are poised for economic renewal are more likely to be accepting of wind projects. Similarly, Berka and Creamer (2018, p. 3413) attest that "exposure to, and psychological ownership of renewable energy installations determines whether they come to represent tangible and symbolic manifestations of shared identity and success."

While Nova Scotia may not have quite the prolonged experience with wind turbines as areas of Scotland, there are now over 300 commercial wind turbines operating across every corner of the province (Nova Scotia Power, 2023). It is possible that over the

last decade, regular exposure to the sight of wind farms has led to some level of familiarization by local residents.

In congruence with the importance locals place on the visuals of a project in determining the 'fit' with an area, aesthetics often rank highly on the list of negative impacts most often mentioned by stakeholders (Buchmayr et al., 2021). Even so, as Buchmayr et al. (2021) cite, the visibility of wind turbines is not invariably linked to negative outcomes in opinions. Rather, the impact of a given development again depends on the landscape that it is placed in, and how the nearby populace characterizes the history of that landscape.

Climax thinking is an extension of Wolsink's (2007) suggestion that, over time, people grow attached to alterations to the landscape. The 'climax' epithet refers to the belief that the current landscape is in its intended state, and that any future alterations would be done so erroneously (Sherren et al., 2022). This mindset can be attributed to a lack of familiarity with the historical context of the local area, or a belief that the landscape as it currently exists is sufficient to meet the needs of future inhabitants (Chappell, 2020; Sherren et al., 2022).

Place attachment also has implications for people that place emphasis on a sense of belonging beyond the local scale. Johannsen (2019) raises the point that in their modern-day lifestyles, people are highly mobile and can form place attachments at the local, national, and global scales. With these differing scales of experience come qualitative differences in attachment to different locations. People may be attached to the place they currently live in, but the connection to a place where they were raised or where a valued summer retreat is located may carry with it a stronger emotional reaction.

Devine-Wright and Batel (2017, p. 117) describe a group that they deem 'nationals,' people who feel a stronger sense of belonging to a nation, rather than on a local or global stage. For the nationals, the conventional power grid, and the construction of new power lines, were linked to their national identity. In contrast, the (often younger and politically left-leaning) 'global' group was more likely to support the construction of an expansive grid system that would link multiple nations together.

Although this support for a 'supergrid' appears antithetical to the global group's support for decentralized energy and concern for climate change, Devine-Wright and Batel (2017) suggest that it may be related to a desire to move away from the conventional national grid system and a desire for the formation of a community of interest distributed across multiple countries. What these accounts reveal is that place attachments and are complex, and potentially extend far beyond the environment that people physically experience in their everyday lives. Part of this research's aim is to identify how people have formed their attachments to the places that they live in, and whether their support for (or opposition to) renewable energy may be influenced by their attachments to areas or causes that exist beyond the local level.

2.4 Research Contribution

This research contributes to the literature around renewable energy project acceptance by taking an in-depth qualitative exploration of the major viewpoints and concerns of people closest to wind turbines and their processes. Rather than emphasize one major theme identified in the literature, this research has devoted questions to each major theme in order to best identify where community members are (and are not) allocating their interests. Nova Scotia's RBP wind projects provide an opportunity to

evaluate attitudes in areas that are new to large-scale wind developments as the process is ongoing, before participants have evaluated the aftermath of the projects and their verifiable impacts.

In the following chapters, this research's results and discussion are combined—divided into multiple chapters that comprise each major research theme. Chapters four through six are dedicated to the themes of participation, justice and fairness, and connections to the landscape and community, respectively. Interspersed in these chapter are select quotes from participants to better illustrate viewpoints and to ensure that the voices of participants remain present in the research. For each quote, the participant is identified as either a 'community of place' (COP) participant, or a 'community of interest' (COI) participant. Chapter seven includes recommendations for policy and developer leaders, and examines the project limitations and avenues for future research. Finally, Chapter eight concludes with a summary of major findings and implications for future research and wind project developments.

Chapter 3: Methods

Qualitative methods were selected for this research because they allow for the 'deep' investigation of a smaller number of participants. While quantitative methods are suitable for uncovering larger patterns and trends of populations, this research is more focused on the subjective lived experiences of people and their attendant opinions. As a result, qualitative methods are more applicable for their ability to obtain "more detailed descriptions and explanations of experiences, behaviors, and beliefs" (Guest et al., 2013, p. 21). Based on this rationale, the decision was made to conduct semi-structured interviews with project participants. Approval for the research by was received by Dalhousie University's Research Ethics Board July 11, 2022.

3.1 Site Selection

Site selection was made relatively simple for this research. Rather than assess the characteristics of different unrelated locations for their suitability for inclusion in the project, the main research sites were limited to the areas of projects that had been selected by the province's Rate Based Procurement (RBP) process in August of 2022. Five projects were successful in the bidding process: Benjamins (sic) Mill Wind; Ellershouse III Wind; Higgins Mountain Wind Farm; WEB Weavers Mountain Wind; and Wedgeport Wind Farm. All of these projects are situated in traditionally rural areas, with small numbers of residences located near the turbines and larger population centers often located at large distances away from the project sites. Of the prospective research sites, only the Benjamins Mill and WEB Weavers Mountain projects held project open houses during the research period. There were also public events held in the town of Truro

related to the wind turbine setback bylaws, and another community engagement event for the Westchester wind project, which was not selected in the RBP process.

In terms of the profiles of the wider project areas when it comes to the wind projects, the situations vary. One project proposed by Elemental Energy, the Wedgeport Wind farm, is located in the Municipality of the District of Argyle. The District of Argyle has a pre-existing history with wind farms. In 2004, the Pubnico Point Wind Farm consisting of 17 wind turbines was constructed—the province's first (Municipality of the District of Argyle, 2020). The other project proposed by Elemental Energy, the Higgins Mountain wind project is located in the Cumberland and Colchester counties. Both counties have enacted moratoriums on wind developments in the past year, and at least one elected official from Cumberland County reported that there appeared to be very little public support for wind projects sited in the Wentworth Valley, of which Higgins Mountain forms the west wall (Cole, 2022).

However, the official position of a county does not always align with the opinion of the total population. As mentioned by Doelle and Critchley (2015) in their review of the benefits of Strategic Environmental Assessments, one of the municipalities that comprise the Alternative Resource Energy Authority (one of the partner companies behind the Ellershouse Wind project) is the town of Berwick. Despite a moratorium on wind developments in Berwick's area of King's County, the town has still entered into an energy utility company partnership with Potentia Renewables to develop the Ellershouse wind project in Hants County. Hants County, meanwhile, has been recognized as an early supporter of clean energy —developing a Municipal Climate Change Action Plan (MCCAP) in 2013 (Doelle & Critchley, 2015). In addition to the Ellershouse Wind Farm

and its proposed expansion, Hants County is also the location of the Benjamins Mill Wind project area (developed by Natural Forces). Finally, the WEB-developed Weavers Mountain project is located in the Antigonish and Pictou counties. The town of Antigonish is also one of the members of AREA, and the Antigonish and Pictou Counties previously hosted the construction of the Glen Dhu Wind Farm in 2011; with 17 turbines it was—at one point—the largest in the province (Inverness County, 2012).

It should be noted that although this work refers to the attitudes of 'community members,' there is some difficulty in identifying specific communities near (i.e., within 10km) to projects. For example, while the community noted as closest to the Benjamins Mill project is Falls Lake, the environmental assessment notes that there are also "small residential neighborhoods located at least 1.6 km" from the nearest turbine (Natural Forces, 2023, p. 47).

In addition, project documents do not provide much detail regarding the distribution of nearby populations. Only the Wedgeport wind project notes in their environmental assessment document that the nearest community of Yarmouth 33 had a population of 157 in 2016 (McCallum Environmental Ltd., 2023) The rest of the projects listed the populations of the municipality or county subdivisions that the projects are located in, but not specific nearby communities or neighborhoods (McCallum Environmental Ltd., 2023; Natural Forces Developments LP, 2023; Strum Consulting, 2023a, 2023b, 2023c).

Notably, all of the selected projects have a component of joint ownership with one or more First Nations communities in Nova Scotia. Speaking with members of the various Mi'kmaq communities could have provided interesting perspectives regarding

their input on the projects and the benefits that they are receiving; however, these projects are situated a fair distance away from their First Nations partner communities. Each First Nation community is located at least dozens of kilometers away from their respective project site, with the exception of the Ellershouse III project—the Annapolis Valley First Nation own the St. Croix Reserve located adjacent to the project site. However, project documents note that the site is currently accessible only by Panuke Lake, and that the Annapolis Valley First Nation were "very enthusiastic about the opportunity for improved accessibility to allow more community members to visit the cultural site (Strum Consulting, 2023, p. 26). As a result, these groups do not align with the project's stated goal of sketching and elaborating on the views of those who live closest to the planned wind developments. Nor did I personally engage with any Mi'kmaq community members at the various events, with the exception of one project representative associated with the Weavers Mountain project.

Table 1
Profiles of Wind Projects

Project Title	**Developer Proponent**	**Proposed Number of Turbines**	**Mi'kmaq Partner Group**	**Nearest Community(s) (Distance from project in km)**
Benjamins Mill Wind Farm	Natural Forces Developments LP	28	Wskijnu'k Mtmo'taqnuow Agency Limited	Falls Lake (2.5km)
Ellershouse III Wind Farm	Alternative Resource Energy Authority	12	Annapolis Valley First Nation	Hartville (6.3km)
Higgins Mountain Wind Farm	Elemental Energy Renewables Inc	17	Sipekne'katik First Nation	Folly Lake (5.5km), Wentworth Valley (5.5km)

Project Title	Developer Proponent	Proposed Number of Turbines	Mi'kmaq Partner Group	Nearest Community(s) (Distance from project in km)
Weavers Mountain Wind Farm	WEB Weavers Mountain Wind GP Inc	16	Glooscap First Nation	Marshy Hope (6.4km)
Wedgeport Wind Farm	Elemental Energy Renewables Inc	13	Sipekne'katik First Nation	Yarmouth (12km)

(McCallum Environmental Ltd, 2023; Natural Forces Developments LP, 2023 Strum Consulting, 2023a, 2023b, 2023c).

This research had originally intended to compare attitudes toward conventional privately-owned renewable energy projects and community-owned energy projects. However, there are currently no major government programs in operation for community-of-place energy developments. While the wind projects in this research are all majority owned by one or more Mi'kmaq communities, their distance from project sites renders them more comparable to community of interest participants. Further, without more detail on project decision-making arrangements within the First Nations communities it is difficult to judge how much impact the average community member has. One other possible point of enquiry identified early in the project was a comparison of attitudes between conventional wind farms and newly introduced community solar gardens in Nova Scotia.

This approach was rejected for multiple reasons. For one, during the research period, there was only one open house event—limiting the opportunities for in-person participant recruitment. As well, the 'community' moniker of the solar gardens is somewhat misleading. As identified in the literature review, the solar gardens represent

the kind of community project that is led by larger organized groups (in this case, AREA—the municipally owned energy utility). While the gardens do provide generated energy to local consumers, they are not quite the small-scale, grassroots operations that one might expect to carry the community label. Instead, considering the scale of these gardens, they were seen to have more in common with the current group of large-scale wind farms. As such, it was determined that were would likely be few analytically significant differences in views between the solar gardens and wind farms that would merit an in-depth comparison.

3.2 Recruitment

Eleven participants were sourced for interviews, after which it was judged that saturation of relevant themes had been reached. Three participants were associated with the Higgins Mountain Wind Project, six participants were associated with the Weavers Mountain Project, and a final two participants were associated with the Benjamins Mill Wind Project. In addition, two of the aforementioned participants also had jobs associated with planning processes of the projects—presenting insights that complemented the lay perspectives of the other participants. These ‘planner’ participants were approached in order to compare the stated intentions of project proponents with the perceptions of local community members. Planner participants received an alternate set of questions to differentiate their perspective from local community participants (Appendix D). Note as well that the planners are not associated with a specific project in order to better protect their professional anonymity. Overall, the participants were selected purposively, with the project recruitment activities targeting people who lived within the project for at least a

year within 5km of one of the proposed wind projects, and who had previously attended a community engagement event.

Participant recruitment and interviewing activities took place over the months of October 2022 to April 2023. The majority of participant recruitment began through unsolicited introductions to visitors of the various wind development public events. The conversation began with a brief introduction explaining the subject of this research project. From that initial greeting, the prospective participant was asked about their interest in wind developments and whether they had been involved with, or following news on, the project whose event they were currently attending. If the visitor expressed that they had been following news on the project or had been attending associated engagement events, their contact information was requested for later contact (within two weeks) by the researcher along with the sending electronically of the research's Interview Consent Form (Appendix A). Through this method of recruitment, 22 soliciting emails were sent to prospective participants. Additional participants (n=3) were identified by snowball-sampling, being contacted through email or by phone on the recommendation of an existing participant. After agreeing to an interview, participants were provided electronically with the project's Signature Page, to be signed and returned to the researcher prior to the time of interview (Appendix B).

Overall, recruitment did prove to be a significant challenge. While many possible participants were willing to briefly speak about their interest in the project, and in some cases even agreed to provide contact information, the response rates for agreeing to sit for an interview were much lower. Of the 25 individuals contacted, 11 participants agreed to sit for an interview (n=11), resulting in a participation rate of 44%. However, this hurdle

was not unexpected. Authors have noted the considerable time constraints for citizens that limit greater involvement in the planning and engagement processes of wind projects (Firestone et al., 2020; Koirala et al., 2018).

As recruitment activities continued, it became apparent that it would be difficult to solicit only community members who lived in close proximity to the incoming projects. In addition to the fact that the number of people who attended the events was already limited, many visitors stated that they only had a cursory interest in the projects' activities and were not willing to sit down for an interview. As a result, recruitment activities were expanded to include individuals who lived within 10 km of the project, as well as people who attended such events who did not live nearby the project in question but had directly participated in planning and participation processes for previous wind projects in Nova Scotia. As such, the scope of the research shifted somewhat to also incorporate members of the wider 'community of interest' who were knowledgeable of the experiences and concerns of local citizens in past wind projects. Of the non-planner participants, five represented 'community of place' participants, while three represented 'community of interest' participants.

The fact that only 11 participants were secured for interviews does not necessarily impact the validity of the generated themes. According to Aitken (2011, p. 6069), the intent of identifying key participants at open houses and contacting other community members recommended by them was "not to establish a representative sample, but rather to select respondents who will be most beneficial to developing theories."

Table 2
Profiles of Project Participants

Name (Pseudonym)	Position	Associated Project	Distance from Project
Alan	Retired	Benjamins Mill	>10km
Connor	Planner	N/A	N/A
Ellen	Retired	Weavers Mountain	<10km
Frank	Planner	N/A	N/A
Fred	Self-employed	Higgins Mountain	>10km
Gail	Office worker	Weavers Mountain	<10km
Jane	Officer worker	Weavers Mountain	<10km
Mary	Retired	Weavers Mountain	<10km
Robert	Retired	Higgins Mountain	>10km
Tom	Infrastructure maintenance	Higgins Mountain	<10km
Vivian	Retired	Higgins Mountain	<10km

Note: Projects associated with planners are not listed for confidentiality reasons.

3.3 Interviews

Interviews were held in a mixture of formats: in-person, over the phone, and virtually through Microsoft Teams. After a brief conversation to ease each project participant into the interview, I reiterated the research project's stated goals and process, and described the potential harms that could come from participating in the project.

Effort was made to follow the overall sequence of questions established for the interview (Appendix C). Often, an interviewee would, in answering one question,

partially answer a following question. When this occurred, I would preface the next question by referring to the relevant part of their previous answer before asking them to reiterate their thoughts.

Occasionally, it was necessary to introduce a transition statement into the interview. This was required when progressing from one section of the interview to another, but also during moments when it was apparent that an interviewee was unfamiliar with a particular aspect of the project and would not be able to form an in-depth response from the question alone. For example, just asking whether the interviewee was aware of any financial benefits deriving from a project may not elicit any immediate examples. However, by contextualizing the question through providing an example, e.g., 'jobs related to construction,' the interviewee was then able to expand their thought process and provide examples.

A mix of both direct and indirect probes were also used in the course of interviews. A small word or noise of acknowledgement was sometime required to encourage the participant to continue speaking. Other times, it was necessary to request a little more information from a brief response through a direct probe, e.g., 'could you say something more about that?' (Brinkmann, 2022, p. 66).

the main points of an interviewee's response were also often repeated back to them in paraphrase. This was done to ensure that the intentions behind the participant's spoken words were being interpreted accurately and to help reassure the interviewee that they were being listened to. However, not all of the interviews required such constant engagement. When a subject seemed particularly eager to speak to a specific topic or

theme, it was sometimes more prudent to keep silent and indicate interest with non-verbal cues like nods or short verbal acknowledgements.

Another benefit of the semi-structured interview format is the ability to follow an unplanned deviation from the interview script. When an interviewee would introduce a topic or theme that appeared to be of great importance to them, they were encouraged with ad-hoc follow-up questions to ensure that the subject's relevance to the conversation was exhausted.

Interviews were concluded with a brief conversation which included asking whether the participant had any additional topics that they wanted to broach or reiterate, as well as if they had any questions of their own. Finally, interviewees were reminded they would receive the interview transcript (if they granted permission to recording) within the next two-to-four weeks. Interviewees then had the ability to remove elements from their transcript, or rescind their participation in the project until the end of the data collection period in April. Overall, interviews ranged in length from 59 minutes to 2 hours and 15 minutes. A total of 13 hours and 6 minutes of conversation was recorded and transcribed by the author with the use of Adobe Premiere Pro editing software. Each participant was assigned a pseudonym to ensure that their identity remains anonymous.

3.4 Coding and Analysis

After transcribing, the assembled data was then coded through the use of NVivo 12 software. This thesis utilizes an "in vivo" coding technique, utilizing the real words of people to uncover significant and frequent themes (Bernard, 2017, p. 460). As a result, the themes generated during the process of coding within this thesis are primarily guided by the responses of the participants based on their lived experiences. Therefore, the

coding process can be said to be partly inductive in nature. At the same time, the interview questions themselves are based on research conducted during the literature review phase, and there are some pre-determined broad themes that are expected to make an appearance in responses.

As a result, the coding process is partially inductive and deductive in nature. While there is already an awareness of some themes, this mixed method allows for the dynamic discovery of other themes as they appear in the testimonies of the interview subjects. The decision to use a semi-structured interview format was made to reflect this balancing act. Interviews are guided by specific themes that inform different sections of questions, but the interviewee always has the ability to introduce a separate topic or theme of their own that can be pursued further through conversation.

This method of coding partly follows a grounded-theory approach, where the aim is to develop a theory based on the analysis of themes that are explored inductively. However, as mentioned by Bernard (2017), this research is similar to many works that only use grounded theory as an inspiration and not as the entire process. For example, coding in grounded theory as described by Glaser and Strauss involves coding after every single interview, and then using these findings to inform future decisions regarding participant selection and the structure of interviews (Morse et al., 2016). As a result, a 'true' grounded theory approach would require a significant period of time that is beyond the scope of this research.

Often, researchers will code only after all of the interviews have already been conducted (Bernard, 2017). In the case of this research project, coding began after five (roughly half of the final total) interviews had been conducted. While analyzing the

emergent themes in the interview transcripts did provide some ideas for follow-up questions for future interviews, the formal interview script was ultimately left unchanged. This first round of coding was primarily based on matching statements to the major themes that had already been identified as being significant from the literature review.

A second, longer, coding period occurred after the interview research period had concluded. In this second coding period for the full collected material, the decision was made to approach the interview materials with an open mindset and attempt to keep any prior knowledge of relevant themes disconnected from the content under analysis. In this way, the coding was no longer influenced by previously established concepts, but instead driven by the data itself (Brinkmann, 2022).

The aim of this strategy of generating codes independent of the themes that have been identified in the literature is to retain an "*abductive*" component—a willingness to be surprised when generating thematic concepts (Brinkmann, 2022, p. 76). In connection to this openness to novel themes is the desire to take in all details, including those that do not match the theories established by the existing literature. By allowing and exploring challenges to dominant narratives, the intention was to generate more refined explanations and avoid the pitfall of confirmation bias. Through this method, 65 unique codes were generated. These codes were additionally grouped under distinct themes that corresponded to the main research strands of this research.

As to be expected from the large number of complementing and contrasting theories around community acceptance of wind projects, this research is not attempting to identify one single truth for unlocking acceptance. Instead, a more constructivist stance is assumed, which rejects the wisdom of "wielding complex quantitative methods over the

insights of ordinary citizens" (Ellis et al., 2007, p. 521; Wertz, 2011). Through a deeper qualitative analysis of the perspectives of interviewees, more complex answers will be found, along with a more holistic depiction of project siting objections.

Within this research, not only is the interview not considered objective in nature, but also the transcript and the resulting generated themes and codes. In analysing the resulting transcripts of interviews, it is unavoidable to apply a personal understanding that is informed by a researcher's previous experiences and knowledge. In contrast with older variants of grounded theory that assume the existence of an "external reality" and treat the data as an objective "given", this research uses a constructivist grounded theory approach that seeks to avoid abstraction (Wertz, 2011, p. 168). The themes identified are less intended to be indicative of objective knowledge than the perceptions that have been generated in a joint process between the interviewee and interviewer (Wertz, 2011). In addition, coding requires the fragmentation of the whole, as transcripts are broken into individual units that are then mined for their 'content,' forming theories (Packer, 2011, p. 78).

Furthermore, an interview itself can never capture the nuances and intricacies that go into a conversation. Some elements of the interview are lost during the transcription no matter how much we intend to preserve the purity of the interviewee's words (Packer, 2011). In addition, the interviewer's role is often obscured in the final research product, with the words of interviewees intended to be seen as their creation alone. This ignores the role of the interviewer, who is often influencing the interview by responding to the answers of the interviewee with paraphrasing or requests for clarification. As a result, although semi-structured interviewing may purport to extract a subjective viewpoint from

a subject through their spoken words, the fact remains that these words have been (however subtly) influenced by the participation of the interviewer.

What is left is not a pure account, but something that has been jointly created through the act of conversation between interviewer and interviewee (Wertz, 2011). Based on the numerous intricacies that accompany an interview setting in research it is clear that the resulting material could never be exactly replicated. The meanings that people imbue their answers with are both unique and shared, as well as oriented around a particular relational encounter (Hollway & Jefferson, 2013).

However, through the act of recording the interviewee's words in writing, and analysing their content, the researcher may begin to "prefigure a world for the reader – and a new way of seeing our familiar world" (Packer, 2011, p. 119). The transcript allows the reader to view the world through the eyes of another, and in describing the themes that the researcher finds in this lens, explaining what and how they came to see these things. With the interviewee not on hand to ask for clarification of their intentions, what matters now is what meaning the researcher personally imbues the words that have been written with (Packer, 2011).

In this sense, there is also a reflexive element. One is not creating objective knowledge, just providing a current interpretation of written words, based on the recurring themes found within the qualitative data collected. The interpretations can then be tested for their 'reliability' in applying them to other data sets (Hollway & Jefferson, 2013). While this method does not preclude alternate interpretations, the individual 'sense' made of the data in the analysis can be recognized by others and validated, provided that it accurately speaks to what has been observed in the participants' words.

One element of grounded theory that was retained in the analytical process was the practice of 'memoing,' writing down the reflections and ideas as each transcript was coded (Bernard, 2017). These memos would then provide the opportunity to reflect more deeply on the links (and disconnects) between the various concepts identified and allow for a more effective analysis later on. As described by Juliet Corbin (2016, p. 50), memos are a "combination of researcher and the data interacting together to come up with an explanation of what is going on."

Chapter 4: Participation in Projects and Community Views

This chapter explores how the participants interviewed over the course of this research perceived the incoming wind projects, and whether they believed that they were capable of influencing the projects' planning. In general, the early stage at which the projects' events were held meant that participants had difficulty in assessing the extent of their influence on the projects, and how much the projects would impact them. Instead, the most in-depth opinions of participants relate to how they judged the abilities of the project representatives in communicating and answering questions. Additional insights were generated into the perceived lack of wider community interest in the planning processes, as well as the nature of opposition that grew out of negative experiences at community events.

The ability to influence the planning of the project was largely unknown among the participants. Although the participants did have their questions answered by projects representatives and were able to offer their viewpoints, there was no indication that their contribution would be reflected in the end product. As a result, none of the interviewees expressed that they had directly influenced the planning aspects of the wind projects. A few interviewees mentioned the existence of a community liaison committee but reported that it had either not yet began operating or that local community members had expressed that they did not have an ability to contribute much to its meetings.

While it was difficult for interviewees to have a sense of how much impact they really had on the outcome of the projects, in some cases it was not deemed particularly concerning. For these interviewees, simply having the opportunity to provide input or feedback on the project in its planning stage was deemed acceptable. For example, when

asked if she felt that the level for participation for local community members was acceptable, Ellen referred to the community events that have taken place:

> "We've had the opportunity to provide input. Um, I don't have any idea where that, you know, whether, whether the input gives rise to any adjustments in the, in the proposal. […] So, you know, if indeed a community liaison committee is set up, that would hopefully be another opportunity for people to express their views. So I think the process so far has been, you know, sufficient to my needs anyway."
>
> -Ellen, COP participant

Other participants connected to the same project, Mary and Gail, expressed a lack of certainty about what more the project implementers could be doing to involve local citizens in the process apart from providing information in a timely manner.

> Interviewer: "what kind of activities maybe would you just like to see that would make you feel involved in the project, you know, apart from, you know, the sort of open house event we've gone to?"
>
> Gail, COP: "Yeah, it's a good question… I haven't really, I don't know, what other things might be typical. I mean, if they had more open houses as the process continues, presumably they're going to have more information coming from the different environmental assessments and that sort of thing. I would go to another one of those and, I don't know if they would have any more virtual ones… I would like to encourage some of our, our neighbours to go or to participate."

Interviewer: “Overall, is there anything else you would expect from the project planners in this kind of planning phase of the project? As we move towards part of the development phase?”

Mary, COP: “Uh, no. Well, I can't really think of anything else, but I can't imagine what else they could do. I mean, flyers I guess, but no. No, I think what they're doing is reasonable.”

Ellen further elaborated on her position with an acknowledgement that local community members may not necessarily have the requisite knowledge or skills to have an impact on the more technical details.

Interviewer: “So do you feel it's important, you know, that local people are involved in the planning and running of the project?”

Ellen, COP: “Um, to the extent that that's appropriate. […] I think it's important that people have the opportunity to interact at all stages. Um, and to give input if, if there are negative factors that, you know, haven't been anticipated and accommodated for. But to say that, you know, for, for local people to be directly involved, I would say that’s probably a bit unrealistic in terms of just skill sets and the skill sets required.”

With that being said, participants also spoke to the substantive benefits of local community involvement. For example, Jane contended that local community representation is important for any project when it comes to a duty of care for the local area:

“It’s always preferable that there is some local representation. Sure. Yeah. It is not a good practice to bring in, quote, ‘outsiders’ only. You’ve got to at least have

some token local hiring. But yes, if you have local representation on the workforce or the project or the planning, then there's more care, I think."

This idea was also picked up on by Gail, who thought that community representation in the developer workforce may provide benefits in terms of providing a local inhabitant's knowledge of the area. However, Gail tempered this thought by supposing that take-up may be limited by a desire to avoid incurring the ire of neighbours.

"The community's input, because, because of the community, community knowledge that, you know, exists here and people coming to -to do a project like this aren't necessarily aware. […] It could be very interesting if, if more local people were involved. But I also feel like there is a lot of negative perception of these. […] So it makes me wonder how comfortable someone local would be in accepting a job if they think that their neighbours are gonna hate them." -Gail, COP

Overall, none of the interviewees approached the new projects with a pre-conceived negative opinion. Instead, the opinions tended to be positive of renewable energy in general and neutral toward the projects specifically.

"I feel pretty neutral about it. Neutral to, neutral to positive. You know, I, I have questions and concerns like anyone might about kind of a, a large-scale development that's happening in essentially a wild area of wildlife habitat and that sort of thing. But I, you know, I see the importance of increasing our renewable energy and reducing burning of coal and trees for our electricity." -Gail, COP

> "Um, I think I was sort of ambivalent. You know, it's clean. Supposed to be clean-wind. But you're kind of concerned about where, where is it going to be exactly, and how close and that sort of thing. So yeah, I kind of went in with a, with an open mind, I guess. So I just wanted to get some more information." -Mary, COP

According to Frank, who has experience hosting community engagement events, this group tends to make up a slight majority when it comes to visitors to planning events. Less than half of visitors arrive with a negative mindset toward the project in question. Similar to the observations of Dwyer and Bidwell (2019, p. 173) in their case study, visitors to the engagement events tended to possess "an overwhelming desire to simply learn about the proposals and wanted to be presented with 'just the facts.'" This search for information was related to the fact that most of the participants did not have previous direct experience with an incoming wind project. As for the interviewees who expressed oppositional attitudes toward the wind projects, they also began their experience by approaching the information events with open minds. It was only after the events themselves proved to be unsatisfactory that they began to shift their opinions.

> "You know, my, my interest at that time was not more like, oh, you know, I want to be involved so we can stop these wind turbines but needed to, felt the need to get a better understanding of, you know, what they were proposing and what the impact was going to be." -Vivian, COP

It should be remembered that since this was largely participants' first experiences with wind projects, there was necessarily also a lack of familiarity with the developers and their practices. As mentioned by Lennon et al. (2019) and Liu et al. (2020), without background knowledge of the technology or a personal relationship with the developers

through which their trustworthiness can be appraised, community members must instead judge developers on the basis of how they present information and answer questions. Through the answers of developers, community members can then evaluate the competency and integrity that is on display (Dwyer & Bidwell, 2019; Liu et al., 2020). As such, in the case of this research the participants who were most positive of the wind projects were those who felt that their questions and concerns were being adequately responded to by project representatives.

> "I mean, they did it right. They know how to do this stuff right. And hot and cold running information, you know, like if you just were staring at a poster, someone would come right over and ask. So no, they did a good job and they seemed to have the answers." -Jane, COP

Those participants within the research who identified as the most "oppositional" expressed dissatisfaction with the question answering and competencies of developers. Tom and Vivian both attended the same information event that originally shook their faith in the project and its developers. At this event, the visitors were surprised to find that the representatives were running late with their information boards and were not able to make use of the building's sound system. The first impression was not a positive one. For Vivian, she questioned the abilities of the developers to properly coordinate a large-scale wind project "without any negative impact if they couldn't put on a community meeting and provide sound." The competency of the developers was further tarnished in the eyes of community members when they discovered that members of the project had previously been associated with another nearby wind project in the area, of which several turbines had fallen into disrepair.

"[…] the old Higgins Mountain site which had to which actually had three, from 25 years ago, turbines and all that. That haven't functioned in the last ten because they no longer have the parts, and they were just sitting there like eyesores." - Robert, COI participant

This concern ties back to the point of Liu et al. (2020), that distrust in the competency of developers is influenced by previous negative experiences. The concern around the derelict turbines was extended to a fear that the developers would unceremoniously sell their stake in the project and leave the clean-up to the local communities:

"And these things are, maybe last 15 to 25 years from now when these things are dying, you know, somebody is going to sell their company to somebody else. That company is going to go in receivership and you're going to be stuck with the bill of getting rid of, you know, these massive turbines all over the place that are kind of and not just eye sores, but now they're going to be a problem." -Tom, COI

While the perceived competency of the developers of the Higgins Mountain wind project was a major factor in community opposition, the nature of the dialogue at the first event appeared to be the primary source of dissatisfaction amongst associated interviewees. At the first event for that project, participants recounted that it appeared that the developers did not intend to start an open dialogue with community members.

"And they, you know, they said, 'we're putting a farm in the valley. We've already looked at the area. We picked it out. Here's where we're putting our turbines. They're going to be, you know, as big as we can possibly make them. And here's

where they're going to go'. And that was what we got. And it was like, 'So what's this for?'" -Tom, COP

Tom reports that the project representatives claimed that they only had an hour to speak with the community members, after which they would be leaving, which added to the perfunctory feel of the event in his view. The gathered community members were able to convince the project planners to answer all of their questions but only after significant protest.

"And, you know, it was, it was quite an uproar. You know, locals said, 'No, no, you have to stay and listen to us.' And, speaking like, you know, and it was, it was a very, you know, it was very one-sided. The locals, they got to express their opinions. But it- it was, it was pretty rough. It was… it was actually, to be pretty frank, it was -it was a very uncommunicative event. It was a, you know, 'here's what we're doing. Okay. Yeah, we hear that you don't like it. Okay. Thanks. Bye.' You know, 'and we're going to keep going and doing our thing.'" -Tom, COP

The above testimony would suggest that the developers followed a traditional non-collaborative strategy of 'decide-announce-defend' (Boudet, 2019). Dissatisfaction with the willingness of the event planners to answer questions was also described by Vivian. Evidently, when coming into the meeting, community members like Vivian were relying on the answers of the developers to gauge their trustworthiness in the absence of direct experience or knowledge of wind projects.

"We hoped for open communication because we didn't know them. I said, I said, 'I have, you know, I don't have any history with you. Maybe some others in the

room do. And I want to trust you and I want to have confidence in you. But we need to have good, open communication.'" -Vivian, COP

Although the developers responded that they were also amenable to having an open dialogue with the community members, Vivian claims that they remained evasive in their answers to the public's questions. As noted by authors (Brennan et al., 2017; Firestone et al., 2020; Simcock, 2016), a perceived unwillingness on the developers' parts to answer questions and provide details on project specifics signals to community members that there is something being hidden from them, and that heightened distrust is warranted.

"And you're gonna have 20-30 concrete trucks through there, you know, dusting them up on the road rattling back and then, you know, around the clock and ask them to either, you know, refute that, or agree. And, you know, you'll know what you're into. But I said right now they're going to try and hope that nobody in your group understands any of that and they can just sweep it under the carpet." - Robert, COI

As for questions related to the direct impacts of wind projects in the form of visuals and noise, participants reported that there was little that they could concretely determine. While participants could ask the developers questions regarding the size of the turbines and where they would be located in relation to their residences, they could not identify how they would personally experience their effects. As previously mentioned, for many of the participants, their history with wind turbines has been limited to nonexistent.

Meanwhile, the participants who *had* directly experienced the effects of wind turbines described the impacts as inconsistent—with many relatively nearby neighbours

not being affected either due to a change in the geography or personal tolerance. As mentioned by Fast et al. (2016) and Rand and Hoen (2017), there is no firm consensus on the degree to which the visual and auditory externalities of wind projects verifiably impact the health of nearby dwellers. Nor is it easy for municipal authorities to speak with any real authority on the expected impacts on community members (Watson et al., 2012). Due to the ambiguous scale and range of visual and auditory impacts, it is necessary for locals to have some level of direct exposure to a wind project before they can accurately determine its impact on their habitation.

During the interview with Fred, he described the main impacts associated with a previous wind farm that was sited nearby his home. The noise was the main issue—heard at random intervals throughout the day and capable of preventing restful sleep. Apart from the debilitating auditory impacts, Fred mentioned the visual impact of the turbines as he returned home. In his opinion, the issue was not so much that the shadow flicker was particularly impactful, but that it was a constant reminder of how wrong the original visual impact estimate had been in the environmental assessment—which had promised zero minutes of shadow flicker. In addition, the sight of the turbines upon returning home every day was a constant reminder for Fred of how inaccurate the original impact estimate had been, as well as an advance warning of the stressful experience that they would be again returning to. This is in addition to Fred's recounting of anecdotes where people who were opposed to wind developments and forced to live nearby them were exposed to significant stress and subsequent health impacts.

The emphasis on stress is borne out by the research of authors who argue that, aside from tangible health impacts like headaches or low-quality sleep, annoyance

resulting from wind projects should be viewed as both its own health impact and as a possible contributor to additional health problems (Doelle & Critchley, 2015; Fast et al., 2016). Based on a special report on possible health impacts conducted in 2012 by the King's County municipality in Nova Scotia, the county officials determined that a lack of social consent for a nearby wind energy project is a key indicator of reported levels of stress and annoyance among community members. In addition, the 'long-term stress from real or perceived environmental threats can increase risks of negative health effects' (Doelle & Critchley, 2015, p. 104). For these reasons, it is recommended that there be a provision that developers respond to noise complaints through all phases of the project (Fast et al., 2016). In the worst-case scenario at the end of the construction phase, Baxter et al. (2013) mention how developers in Ontario, under threat of legal action, ultimately bought out the homes of several objectors before selling them at a loss.

Aside from more material remedies, it is suggested by the authors that symptoms of stress can be mediated through proactive and continued social engagement that allows the affected resident to exercise a level of control, easing perceptions of unfairness and the associated anger (Doelle & Critchley, 2015; Fast et al., 2016).

4.1 Lack of Interest

With regards to the level of interest in the projects in the wider communities, opinions were generally negative amongst the interviewees. For a few of the interviewees located in the area around Weavers Mountain and one in Benjamins Mill, they found that the community's interest in the approaching project was lower than expected. In general, from their testimony and observations during the research, the events had on average only around half a dozen or fewer attendees at any given time. Two of the interviewees who

expressed this opinion believed that the lack of community uptake was possibly due to the location of the events. Often, the events were in more remote settings rather than central urban locations. For example, when asked if he thought that more people should have been attending, Alan offered the following response: “yes, because it was pretty well advertised. The location, of course, was out of town, which may or may not be the right spot.” Gail had a similar opinion on the event location:

> “Well, like, even though we kind of live in the area, we were like, ‘where are we going? where is this place?’ and I did wonder. We wondered if they had held it somewhere a little more, uh, I don't know, like more central or more on a main road if, if more people might have gone.” -Gail, COP

Gail followed up this comment by explaining that her nearby neighbours seemed to either be disinterested in the project, or, in the case of those who were interested, had negative perceptions of the project.

> “But I also feel like there is a lot of negative perception of these. I've mostly heard from- I've heard more negative reactions to them from neighbours than positive. I actually seem to have neighbours that don't seem particularly interested or don't care and neighbours who are extremely negative about them.” -Gail, COP

Based on statements from participants and observations at community engagement events, there does seem to be a pronounced lack of interest among communities in the planning processes of the wind projects. Indeed, many participants expressed either surprise at the low number of visitors to the engagement events, or a desire for more community members to participate. It is difficult to point to any one aspect for explaining the relative lack of community interest in the projects focused on in

this research. Multiple aspects could help explain for why engagement by community members was low (as perceived by participants), including: political acceptance, being occupied with other demands, and a perceived lack of personal impact.

Walker et al. (2018) find that acceptance of wind turbines is higher in rural areas of Nova Scotia compared to similar geographies in Ontario. The reason the authors point to is the lack of divisive political rhetoric around renewable wind energy in Nova Scotia. Essentially, discontent with wind energy siting in rural locations in Ontario was linked to the fact that the projects were brought through by the sitting Liberal party government. In Ontario, the makeup of the population is divided between urban and rural areas along partisan lines (Walker et al., 2018) As such, the more conservative rural areas were poised to strongly resist what they viewed as an unfair imposition by wealthy liberal urbanites. This idea was touched upon somewhat in conversation with Connor—one of the interviewees associated with project planning—who stated that in his experience with wind developments in Ontario, wind projects were legislated by the liberal government in a very short period of time. In addition, developers were able to secure land for wind projects without requiring the approval of municipal governments (Watson et al., 2012). As a result, many rural populations and their public officials became incensed against wind projects.

In contrast, Nova Scotia's wind projects have not been subject to the same ideological division. Wind turbine projects in the province have historically been supported by all major political parties (Walker et al., 2018). Furthermore, rather than attempt to curtail wind developments like their Ontario counterparts, the sitting Progressive Conservative Party has presided over the RFP process for the current slate of

wind projects. For these reasons, there is a much smaller divide in public opinion between urban and rural areas toward wind projects in Nova Scotia, despite there being continued local opposition groups (Walker et al., 2018).

In the context of this research, virtually none of the participants linked their respective support or opposition to wind projects to their political leaning. Granted, none of the interview questions directly broached the subject of political affiliation, but neither was it expressed either implicitly or explicitly by any interviewees. As it stands, only Vivian noted that it was the previous liberal government that first implemented the RBP process in which a U.S. administrator (Coho) selects the projects. Even then, this process continues to be used by the current Progressive Conservative government. Without the factor of politicization around wind turbines, this could explain the perceived overall lack of interest in wind projects and their planning in Nova Scotia.

Beyond the lack of political partisanship around wind developments in Nova Scotia, there is also the fact that people are more involved in more pressing matters in their day-to-day life. Tom, one of the interviewees who expressed an oppositional stance to the Higgins Mountain wind project, mentioned that his time that could be spent being engaged with the project's planning processes was limited by obligations to work, family and recreational activities. Essentially, the regular day to day activities that comprise life. The tension between work and project involvement was similarly invoked by others, including Mary: "No, I knew there was [an information event] more recently, but I had planned to go. Uh, but, um, my grandkids ended up coming that day, so I kind of passed on it."

> “Yeah, I just need information and I'm not the best person to assess the information just because I've been other- I've been busy with a job. It takes a lot of time and because I'm in favor of the whole thing, I'm not poking the bear deeply.” -Jane, COP

The difficulty in balancing work/life commitments with project was also mentioned by Vivian. Vivian claims that although a “fair amount of the community” attended the main first community engagement event, more full-time residents would have been present but were unable to as a result of the event taking place on a weekday while people were working. With this in mind, the assembled community members were not impressed when it seemed that the developers were implying that the majority of complaints stemmed from seasonal cottage owners or “people with a lot of money who came from Halifax” (personal communication, February 21, 2023).

It should be noted that the interviewees of this research represent the members of the community who, by virtue of their attending of community engagement events, are the segment of the population that are most invested in the planning and implementation of the wind projects. Even then, participants claimed that the nature of work, childcare, or other activities inhibited their ability to participate in more community engagement events. It was evident that many of the more knowledgeable and involved participants in this research were either retired, or not actively working. For example, Vivian described how, since both her and her husband were now retired, it provided both more time and willingness to be actively aware of the project’s activities.

> “He [Vivian’s husband] is also retired, which makes it much easier for me to be questioning, you know, and, and my retirement has made things easier. I probably

wouldn't have been as active at all if he was still, you know, [actively working in his career].” -Vivian, COP

Overall, the responses of participants align with the finding of Koirala et al. (2018, p. 38) that most respondents are unwilling to take an active role in the planning processes of energy systems on account of a “lack of time, financial resources, technical expertise.” Firestone et al. (2020) report that, apart from being too busy, community members who did not participate in the planning processes of offshore wind projects felt that their participation was unnecessary while other, more apprised locals were attending. This theme was also present in this research, with participants mentioning either that they were leaving the deeper investigations of the project to their more active neighbours, or that neighbours were leaving the involvement and community representation to *them.*

The perceived difficulty for local community members to engage in participation raises the question of whether the project developers could have done more to actively solicit the involvement of community members. In their case study, Simcock (2016) cites that some community members believe that outreach activities of sending out flyers and posting on a website (also primary means of informing community members in the projects of this research) are inadequate. The community members claimed that it was unreasonable to expect the enthusiastic involvement of the local community on account of their busy daily lives. Instead, it was the duty of the developers to actively visit households in person to solicit the involvement of the community. Alternatively, other community members believed that the project representatives had met their responsibility in informing the community of the project and its events, and if community members had decided not to take up the developers on attending, then that was ultimately their decision

(Simcock, 2016). This stance matches the viewpoints of the majority of participants in this research:

> "I think that the opportunities have been acceptable. I'm not sure there has been- I'm not sure how much uptake there has been. […] So I think, I think the opportunity has been made available to people. And, you know, if people don't take them up, well, that's up to people." -Ellen, COP

In this case, it seems that whether the project developers have adequately solicited the communities of the project areas comes down to the personal procedural expectations that participants hold for the projects' implementors (Simcock, 2016).

Meanwhile, the Higgins Mountain project participants believe that the developers have intentionally not informed community members so as to avoid opposition at engagement events. For example, Tom remarked that he and other members of his local community had not been made aware of the incoming project and that without the efforts of an outside third-party organization they would never have known about it: "They reached out to the locals and said, 'hey, we've got a wind farm coming in. Did you know this?' And I'm like, 'no,' and nobody knew without that." This opinion is also apparent in Vivian's claim that the community event was held on a weekday, at a time when a portion of the community would be working. Recall that one of the requirements of a just process is that meetings are accessible—"held after work rather than during the day, for example" (Ottinger et al., 2014, p. 663). As a general takeaway from the responses of participants, one recommendation for enhancing community involvement is to hold the event in an easily accessible location on a day and time when the maximum amount of community members is able to attend.

Finally, lack of wider community interest may be attributed to the belief of local residents that the projects simply will not affect them. Janhunen et al. (2017, p. 222) describe how residents near Finnish large-scale wind farms were disinterested in active participation due to the fact that they did not own land near the turbines as well as a perception that wind turbines 'do not cause terrible harm.'

Tom and Mary similarly identify a lack of personal impact as being the reason for the absence of wider community interest. Tom attributed project disinterest to seasonal part-time residents who believed that the turbines would not impact their recreational activities and knew that their permanent residences were unaffected.

> "You know, we're now having more and more full-time residents, everybody there that is a full-time resident all of a sudden becomes very adamant that we do not want a wind farm. The people that are not here all the time are you know, they're less knowledgeable of it and they're kind of like, you know, 'I don't really need to fight for this because I don't really care.'" -Tom, COP

Mary, meanwhile, stated that the lack of local community interest in the Weavers Mountain wind project was likely due to the fact that many of the impacts were contained to more isolated rural areas. The developers have specifically placed the turbines in a distributed pattern in the area to ensure that a minimal number of residents will be impacted. The result is that people who don't believe that they will be directly impacted then decide that there is no reason to involve themselves in the planning process of the project (Liu et al., 2022b).

In the case of the Weavers Mountain Project, public interest was instead diverted toward the long-discussed amalgamation of the nearby Antigonish town and county.

There appeared to be concerns of job losses because of there now only being staff required for one consolidated unit as opposed to both the town and county. In addition, concerns were raised that outlying county residents may now be expected to contribute taxes toward the upkeep of infrastructure like sewers and sidewalks that are only found within the town proper of Antigonish (personal communication, December 13, 2023). This is on top of questions regarding what will happen to services like police and fire. Beyond these practical questions, there is also the matter of the impact on peoples' connections to their local area and community:

> "So people who live in town, long history, you know, they lose that sense of themselves as a particular entity and yeah, no, it's huge compared to- well, I can't think of anything else that would probably get people more riled up than this kind of stuff." -Mary, COP

As a result of the amalgamation's much more widespread and convoluted impacts, those community members interviewed were certain that they will be impacted in one way or another. Thus the levels of local investment and engagement in the planning process are much more significant.

> "No, the amalgamation one is much higher." […] This project, I mean, it's, you know, it's out in this rural area, it's very low population. So yeah. You're not dealing with anywhere near that impact. I think, you know, unless somebody has, you know, a particular issue against windmills, somebody from the town isn't going to care that there's windmills out in this area." -Mary, COP

While an opposition group to the amalgamation has formed in the area, no such activities have cropped up for the wind project. However, it may be that interest will

grow as people become more aware of, and vocal, about the project as it enters into the much more conspicuous construction phase. Multiple participants noted that they were adopting a 'wait and see' approach in regard to their plans if the impacts of the project prove to significantly impact their quality of life.

4.2 Attitudes Toward Projects

The responses of participants do appear to corroborate elements of Wolsink's (2007) 'U-shaped curve,' wherein support for wind energy in a given community is generally high prior to the announced siting of a development. This originally positive perception then turns to negativity once the community learns that their local area will be the host of a project. Although participants did report positive (or neutral) opinions of wind energy prior to the announcement of the project siting, they then began to develop oppositional attitudes or at the very least acknowledged a personal preference that the project not be sited nearby to them.

The remaining element of the 'U-curve' is an amelioration in attitudes to the project in the years after its commencement of operation (van Veelen & Haggett, 2017; Wolsink, 2007). Participants who had prior experience with wind projects in Nova Scotia provided anecdotal accounts for how projects in areas, such as Ellershouse and South Canoe, had been subject to community opposition that then faded or transformed to positivity in the years afterwards. However, as noted by Aitken (2010), the 'U-curve' is based on the premise that environmental issues are appropriately handled by developers. If the community members believe that the developers have not done their due diligence or have misled residents, then it is likely that negative attitudes will continue to persist. In

addition, Wolsink assumes a normative aspect to wind projects: that they are automatically supported by the public unless there are issues in implementation (Aitken, 2010). The oppositional interviewees within this research have begun to reconsider the merits of wind energy in their entirety, and the sentiment may spread further if and when more community-developer conflicts occur in Nova Scotia.

Notably, negative opinions to wind projects were rare at the community engagement events. Previous research indicates that despite broad overall support for renewable energy projects in populations, localized opposition tends to still be very much present (Bauwens & Devine-Wright, 2018; Doelle & Critchley, 2015; Ruddat, 2022). In addition, the planning phase has been observed as the period where community opposition is most intense (Dugstad et al., 2020). There is a possibility that, as suggested by Johansen (2019), public or media attention paid to strong objectors to renewable energy developments obscure the passive support that exists among a larger, silent, portion of the community. Either that, or community members believe that there is such a minimal chance of making any tangible impact on the projects that they have simply decided to passively accept them (Aitken, 2010; Clausen et al., 2021; Devine-Wright, 2009).

In terms of negative opinions identified in the course of research, the pattern of project opposition identified in participants—involving frames of positivity, curiosity, and then negativity—serves to showcase that their concerns cannot be simply attributed to NIMBY sentiments. Notably, the aftermath of the participants researching wind energy developments in greater detail resulted in them concluding that the utility of wind energy in Nova Scotia's array of renewable energy efforts was misguided.

> “Is this the right place? You know, what are they proposing? And the more, more I found out about it, more information gathering, it seemed to be not so the case to the point now that I've kind of, that I'm not even sure if wind is the answer, right? Things have to change. But, but whether, whether it has to be wind energy to the extent that the provinces seem to be promoting it—I don't, I don't agree with it.” - Vivian, COP

> “Yeah, it's, it's not that they’re—just, they're just a contributor to making it better. I feel we should be looking at other, you know, other ways too. So, you know, that's kind of my- my gut on it is it's just not totally green yet. Wind turbines will never be entirely green, therefore, why do this, right?” -Tom, COP

The participants believe that wind projects are not just incompatible with their local area, but potentially in many other locales as well. Therefore, these concerns do not align with the conventional depiction of a NIMBY. As mentioned by Bell et al. (2013, p. 125), “the NIMBY is a self-interested free-rider who is not concerned about the negative effects of wind energy developments on other people.”

Bell et al. (2013, p. 124) also caution that most studies are not designed to differentiate NIMBYs from “place protectors or qualified supporters.” NIMBYs may exist in areas but are not recorded due to a small project sample size. Note that the more oppositional project participants were among the most informed when it comes to the discourse surrounding wind projects and all directly challenged the idea of being characterized as a NIMBY. The depth of objectors’ knowledge of wind energy knowledge challenge the conventional characterization of the NIMBY as ‘ignorant’ compared to the knowledgeable project supporter (Aitken, 2010b). However, it is also possible that self-

interested sentiments associated with NIMBYism exist in some fashion in the community but are quieted in favour of arguments that the objectors know the wider public will receive more sympathetically. This aspect of deploying an effective resistance campaign was mentioned by Robert when he described his own experiences with the Higgins Mountain opponents:

> "My comment to them was, 'look,' I said 'on all of these environmental things you've got to keep your, you got to keep your -your game in the media. You've got to keep the public aware.' 'Not sounding like sour grapes and just a bunch of entitled people over there, that you've got a legitimate concern.'" -Robert, COI

Further research with larger sample sizes could aid in better identifying to what extent self-interest attitudes pervade local opposition groups that have tailored their public message to emphasize more seemingly legitimate and sympathetic concerns of justice and place-project fit (van der Horst, 2007).

The responses of the interviewees indicate that there is support for more localized and community-oriented clean energy generation activities. Several of the interviewees mentioned a willingness to host a small wind turbine or solar panel on their property. Even if participants were positive toward larger scale developments, there were still comments expressing a desire for local generation.

> "If I could put a little windmill in my yard, if I had that expertise, I would have. But I don't. So someone out there does. Granted, it's an energy business. But I think they're on the right side of history." -Jane, COP

These comments, coupled with statements supporting the projects' environmental benefits, align well with the finding of authors that supporters of more distributed and

community-based energy systems are positively associated with people who hold high levels of concern for the global environment and climate change (Devine-Wright & Batel, 2017; Proudlove et al., 2020).

With the obvious exception of the Higgins Mountain project, the participants had neutral or positive statements of the larger wind developments. The participants also did not express any specific discontent that the projects were being brought forward by private companies rather than grassroots community efforts. What the participants *did* voice opposition to, was the fact that energy in Nova Scotia is provided through the Emera subsidiary Nova Scotia Power—a privatized energy corporation. Participants indicated a lack of trust in Nova Scotia Power and noted that the utility's primary goal was the generation of profits.

> "Nova Scotia Power needs competition. It can come from homeowners in many cases, but it also requires more wind. More wind turbines, more self-storage in homes." -Alan, COI

> "I don't have any expectation of any financial benefit to customers of Nova Scotia Power. And I don't think I really need to go into the reasons for that because, you know, I'm as cynical as anybody about that organization, so…" -Gail, COP

For a couple of interviewees, this was a point of contention, as from their point of view, Nova Scotians are paying large amounts to a utility that is unwilling to provide energy security for the entirety of the population. Nonetheless, it should again be emphasized that these participants do not object to the further siting of wind projects. In this way, the viewpoints of participants are similar to those identified by Sonnberger and

Ruddat (2017, p. 63), who find that while the German public is largely distrustful of large energy companies, “these companies are, nevertheless, considered as playing an important role in the implementation of the energy transition.” As such, while these opinions of participants do not indicate significant opposition to these larger-scale privatized projects, it can be inferred that participants are in favour of additional energy projects whose main goals are not the accrual of profits to a private company.

Chapter 5: Fairness and Justice in Processes and Outcomes

This chapter assesses the level of fairness and justice that was on display in the projects as judged by participants. The first section identifies how participants evaluate the level of benefits they are receiving from the projects as opposed to impacts, and whether these benefits and impacts are "distributed evenly among those affected in an impartially and morally objective manner" (Dwyer & Bidwell, 2019, p. 167). Participants were largely unable to identify many specific socioeconomic advantages of the projects, instead concentrating on larger scale environmental benefits. Participants opposed to the wind projects, meanwhile, emphasized local ecological impacts as well as a desire for more tangible and localized distributions of benefits. The subsequent section details the processes that surround the planning of the wind projects. The main aspects of procedural justice that were of interest to participants comprised the format of engagement events, developer presence in the community, and the fostering of trusted relationships.

5.1: Distributional Justice

Overall, participants had difficulty in identifying specific financial benefits to the community resulting from the project:

> Interviewer: "Right. Gotcha. And you know, do you, in your opinion, see any maybe financial benefits coming from the energy project?"
>
> Mary, COP: "No, I doubt it."

Jane and Frank were similarly uncertain of whether local community members would be receiving any financial benefits. Jane stated that she was not able to "anticipate any economic benefits to me or to this neighborhood unless it could be employment, perhaps, to someone. But energy doesn't seem to be something that's getting cheaper."

> “Possibly taxes, although I'm not sure if the use would change the tax rate. I know that it's a good call if like, you know, generally development equals more taxes for the municipality, although where the land is being used or was being used for forestry and now it's being a different type of resource generation, I'm not sure if that actually does affect the taxes or not, but that would be my perception, I guess.” -Frank, planner

Ellen similarly was unaware of any tax benefits to the local area but did mention that there were talks of the developer partnering with local community organizations in Antigonish. With that being said, Ellen was largely unsure of what the resulting developments would look like. The one exception was the suggestion that an electric vehicle charging station could be constructed at a facility in Antigonish. Ellen identified it as a useful addition to the area that is aligned with the town’s stated clean energy ideals, but also stated that no one in her immediate area is driving an electric vehicle at this time.

Other interviewees were more critical of the lack of financial benefits accruing to the local community members in exchange for hosting an energy development nearby their residences. Fred, for example, was incensed that the siting of a nearby project had not brought with it any tangible benefit to energy prices in the local area.

> “Yeah, if we had like, if we’d gotten even any kind of benefit like, ‘okay, this is, this is going directly to you so we can knock off five cents per kilowatt hour.’ At least then there's some local community benefit. But by and large, I don't think you could find a place where they've gone heavy into renewables, where their power prices have gone down.” -Fred, COI

In addition, there was antipathy related to the fact that in some cases, the land procured for the projects was privately owned by third party companies.

> "And that makes this an attractive project because there's only one landowner, they're close to the grid and they only have to deal with one landowner. And it's, it's Northern Pulp or an affiliated company of Northern Pulp who's, you know, based in Asia or, you know, like a long ways away." -Vivian, COP

Tom similarly commented that there would be essentially no economic benefits to any Nova Scotians for the placing of the turbines on that land. Tom then theorized that there would likely be less pushback against the projects if an effort had been made to place more of the turbines on the land of residents.

> "You know, I don't have a property in the right location or big enough. But, you know, say you owned a property that had a nice hill, and somebody came to you and said, 'listen, man, you know, I'll rent this space from you for 35 grand a year.' […] If that revenue was given back directly to, you know, local Nova Scotians, I think there would be a lot better receiving of wind farms, too." -Tom, COP

Multiple interviewees mentioned an expectation that the projects would bring with them employment opportunities to the local population during the construction phase.

> "Oh yeah, I mean, there's definitely a direct benefit in that sense, right? I believe that the developers are looking for like local labor. So I understand that they've said previously that for the actual building of the, of the project itself, prep for the project area and all sorts of those things that they were looking for local companies to fill that labor market." -Frank, planner

> “I, from what I have read on the project website, it seems that there is attention to that detail. You know, that there does seem to be an intention to use local resources. You know, construction people and stuff and so forth.” -Ellen, COP

However, interviewees also tempered this positive impression of employment opportunities by surmising that they would not be lasting very long beyond the initial construction phase.

> “You know, there's usually a big upswing in in local, local employment benefits during the early phase, but once the projects are operational, the employment benefits in the local area most often decline pretty dramatically. That at least is my understanding from stuff I've been looking at over the last decade or so.” -Ellen, COP

> “Yeah. They're going to hire some Nova Scotians to, to build the turbine here. Or similar to here. But it's already been built somewhere else in another country. You're just putting it up and that's the end of those jobs. Couple of people stay on to maintain them. You know, that's not a big benefit. The money going to the owner is not staying in Nova Scotia.” -Tom, COP

Notably, beyond the lack of long-term employment, participants expressed disappointment in the fact that the turbines themselves were being manufactured abroad. This speaks to the finding of Munday et al. (2011) that the primary capital cost of a wind project is the turbine itself. Similar to the Welsh context described by Munday et al. (2011), capacity for turbine development is limited in Canada, and once installed, the

operational and maintenance needs of turbines are limited to a small number of personnel associated with the developers.

> "I did ask a question about the actual components that they're using and where they're, where they're getting those. And, and again, this was a, you know, that November meeting, they said, oh, everything was coming but nothing was being made in Canada. So I was kind of disappointed. Not necessarily in the company. If they can't get the, the goods in Canada, then that's the way it is. But yeah. The fact that they have to import everything that they're going to be installing." -Mary, COP

In general, the uncertainty surrounding the overall economic benefit to the local community matches the point of authors that there remains little empirical evidence for the larger socioeconomic benefits of conventional wind projects (Berka & Creamer, 2018; Rydin et al., 2015). Instead, community members may wish to see financial benefits that are more tangible and immediate than increased tax revenue to the municipality or short-term employment opportunities (Devine-Wright, 2012). This theme is evident in Tom's and Alan's comments that local community members may be more amenable to hosting smaller renewable energy developments in exchange for direct economic benefits or personal energy security.

> "Now it seems to be kind of the thing and, and the end result is, is I'll have cheaper power, you know, produce some of my own power instead of it all going to the grid and, and, you know, yeah, it'll be like I've done the same thing, created a small amount of revenue to a company to put up this thing on my roof, which is similar to putting up a turbine, probably, you know, economic stimulus to the

economy. But now I'm benefiting directly myself instead of- instead of somebody else." -Tom, COP

Previous research has found that the expectation of direct financial benefits and a reliable energy supply is one of the main incentives for people to join community-oriented renewable energy projects (Bauwens & Devine-Wright, 2018; Proudlove et al., 2020). With the ending of the COMFIT program and the implementation of the RBP process, there are currently no plans for smaller community-owned renewable energy developments. However, it appears that enthusiasm in the local communities for smaller, more distributed renewable energy developments does remain.

It may be worthwhile for the province to explore the siting of a smaller number of community-oriented renewable energy projects in areas that demonstrate significant opposition to larger, privatized developments. Alternatively, it may be sufficient to provide some level of investment opportunity to local community members. Based on the responses of participants and the works of Brennan et al. (2017) and Simcock (2016), local residents are more likely to accept a development that provides some level of connection to the community as opposed to a completely privately led project. However, something to keep in mind is that close attention must then be paid to ensure that community members do not experience 'jealousies or rivalries' that could result from the perception of benefits accruing primarily to landowners and wealthy investors within the local area (Lennon, 2019; Lienhoop, 2018; Walker et al., 2010, p. 2662).

In terms of complaints surrounding the distribution of financial benefits, virtually none of the participants expressed a belief that community benefits represented a form of 'bribery.' The only participant who voiced something in that vein was Robert, the former

developer-community project liaison, who mentioned that the motivation for provisioning community benefits essentially amounts to "buying communities' goodwill at the end of the day." Despite the fact that this observation on its own could be taken as an admonishment, Robert was of the opinion that the developers who did offer community benefits were credible as opposed to the groups who simply wished to "build [a wind project] and put it in the company's pockets." At the very least, the developers that Robert worked with did seek his council for suggestions on community resources that could use additional funding or amelioration. In this way, the developers were adhering to the advice of Fast et al. (2016) and Rudolph et al. (2018): that community benefits should be negotiated specifically with individual communities early in the planning process, and not as part of a prescribed package (Fast et al., 2016; Lienhoop, 2018; Rudolph et al., 2018).

A less positive example of community benefits was described by Fred in the context of the wind project that was sited nearby him several years ago. From Fred's description, the community benefits fund that project implemented was similar to the Glenburn case detailed by MacDonald et al. (2017), wherein community benefits were distributed to small-scale ventures with little tangible legacy. From what scant records that Fred could glean, the community benefits fund was used for small one-off projects like a minor hockey league tournament. Fred claims that in at least eight years of operation, the benefit disbursements have only been made public twice. In addition, while there was a community liaison committee at some point to decide the distribution of the funds, for the past few years the authority has rested with only one or two individuals who were themselves tied to the project ownership. Finally, once again echoing the case

of Glenburn the process for submitting suggestions to the benefit fund was largely unknown among the community (MacDonald et al., 2017).

All of these details present the type of community benefits fund that are typically perceived negatively by stakeholders: small, short-term projects that the community are not able to easily identify or connect with, decided upon by a small, privileged group that do not represent the wider population (Aitken, 2010; MacDonald et al., 2017). This is in contrast to the positive opinions that Alan and Frank expressed of the Ellershouse project which contributed to the upkeep of the local community centre.

> "I know there's another wind farm in the region actually, that has a community fund and they pay into maintenance for the, the community's community centre. Yeah. So I'm not sure if this project is doing a similar thing, but I've definitely seen that before. You know, it greatly helps out with the community perception of the project because you can say, 'well, you know, we're, we're here to stay in the community, we want to help you—give you a centerpiece.'" -Frank, planner

It appears that more effort could be made among the currently planned wind projects in Nova Scotia to invest in more visible and community-specific benefits. In addition, the suggestion of Walker and Baxter (2017b) for Canada to develop a public community benefits registry may be prudent. Such a register would allow for greater scrutiny of the allocation of public benefits funds, and possibly even lead to improved social acceptance of projects, as "the greater the local, transparent, sharing of benefits, the greater the perception of justice by locals" (Baxter et al., 2020, p. 9).

Overall, the benefits most quoted by the participants related to the 'clean' energy profile of the projects. Many participants spoke keenly of the role that wind energy has to

play in the province's clean energy transition and climate change resiliency strategies. Often, when environmentally-minded interviewees like Alan were questioned whether the environmental benefit of the project was the most significant determinant of their opinion, they were quick to agree: "we need these projects. The planet needs them."

In connection with many of the participant's more positive accounts of the projects' larger environmental benefits, there were expressions of support for pivoting away from fossil fuels and extractive energy industries. Gail, for example, cited that a benefit of increasing the amount of renewable energy sources to the grid was the resulting reduction of burning coal and trees: "The burning of trees, biomass, things, it's crazy. It's ridiculous. It's terrible for Nova Scotia. So if it reduces that, I think that's good. I think those are the main ones." Jane similarly expressed opposition to the continued use of coal for energy: "We're, we're still using coal, for God's sake. 50%, right? I mean, it's terrible. So we have to get away from that."

> Interviewer: "What's your immediate reaction to [the project]?"
>
> Ellen, COP: "Well, again, I suspect like many people, although I shouldn't make that assumption, very positive about wind energy potentially replacing fossil fuels as part of the electricity grid."

> "Um, you know, I guess my immediate reaction as a planner, someone who at least I think is a little bit forward-thinking for like our environment is… 'oh geez. Another way to generate renewable energy? This is exactly what we need.' [..] I, I'd say the benefits are, at risk of sounding too worldly, I think the benefits are, I

think, first of all, are fantastic for the world, you know, moving towards renewable energy as opposed to relying on oil." -Frank, planner

For most participants, an inability to identify specific social or financial benefits was not often viewed as a cause for concern. This observation aligns with the research of Sposato and Hampl (2018), who find that intrinsic motives, such as environmental benefits, have a greater influence on acceptance of a wind project than extrinsic benefits like validation from peers. However, Rand and Hoen (2017) state that the importance of environmental benefits for community acceptance in comparison to socioeconomic benefits is not fully understood, and may depend on the local context.

Based on the responses of participants in this research, the sense of isolation experienced while living in a rural area is highly prized. As a result, social connections were not identified as a major driver of project support or opposition. Still, interviewees did also claim that neighbours were likely to collaborate in the event of a natural disaster. It is possible that potential future impacts of the projects will cause greater social interaction among local residents:

"So, you know, you hear those stories a lot right after [Hurricane] Fiona. There were a lot of those. And so, yeah, anything that, that happens, that's unusual, that's new, that has some kind of impact on someone locally. We will hear about it. We'll all talk about it. So that, I suppose, is the social plus. More people commune with their neighbors." -Jane, COP

Burch et al. (2018) argue that environmental activists in communities place particular emphasis on the health of the local ecosystem. Furthermore, these green supporters are willing to forego benefits like economic and energy security provided that

the ecology of the local area is undisturbed. A similar finding is present in this research—environmentally conscious supporters of the wind projects are primarily uncritical of the lack of financial or social benefits provided that the project activities will not harm the local biodiversity.

> "Just that…yes. I just wanted to make sure that, what the plan was for wildlife damage and habitat damage, how deep an impact that would be. I want to make sure this is done in a responsible way using the latest state of the art techniques." - Jane, COP

> "I have concerns about habitat destruction and habitat fragmentation for wildlife. You know, it's- it's a real problem. And how much will this contribute to that, that those are the main…[concerns]." -Gail, COP

Ultimately, it is likely that these participants were not aggravated by the lack of personal financial benefits because they did not feel that they or the wider community particularly needed economic stimulation.

As previously mentioned, the primary perceived benefits and concerns around the wind projects are related to the environment. This emphasis on the environmental aspects of the project is informed by the fact that many interviewees specifically chose the areas they reside in for the abundance of nature.

> Interviewer: "But, you know, do you consider nature an important part of your daily life?"
>
> Jane, COP: "Oh, yes, yes, absolutely. That's why I live here."

> “I mean, the homes are here because people here are generally very in tune with the land and are nature folks themselves and have hidden their houses behind the trees.” -Tom, COP

On top of this preference for nature-based living is the fact that the majority of the research participants are either retired or well-established in their careers. Considering that the main motivations for participants living in the host areas are nature-related, participants are focused on the environmental aspects of the projects, and not the economic ones. The perceptions may have been different if the projects were located in more long-peripheralized areas in need of economic revitalization (Roddis et al., 2018; Sonnberger & Ruddat, 2017).

Note as well that economic benefits of the projects will be distributed toward the Mi’kmaq communities partnered with the developers. Connor, when questioned if the perception of financial or social benefits (or lack thereof) accruing to the local host community has had any significant influence on the acceptance of a nearby project, responded that, for the communities located nearby the wind projects, the presence of social or financial benefits was not particularly influential. Instead, Connor claimed that allocating project revenues toward Mi’kmaq communities and their socioeconomic activities tends to mollify local residents. The answers of some participants also support this emphasis on the positive perception of benefits for First Nations groups:

> “Okay. So yeah. So I can, I mean, I don't know if you consider that a social benefit, but I think that there is something going on that can benefit from the, that nation. That would be great. You know, I think that's a positive.” -Mary, COP

While Gail did mention partnership with the Glooscap First Nation as a positive of the project, she was also interested in learning more about what exactly the benefits to that community would entail. In particular, she described a desire to ascertain that the First Nation's groups majority stakes in the project would translate to "meaningful participation" and not simply "feel good" public relations advertising. Based on this open question from Gail as well as the words of Connor, community acceptance may be greater if developers and their Mi'kmaq counterparts are more active in promoting specific activities that the projects would be contributing to.

In connection to the positive perception of benefits accruing to First Nations groups, a few respondents emphasized that rather than bringing specific meaningful benefits to people living in within the area of the projects, they expected the benefits to be more distributed around Nova Scotia as a whole.

> "Yeah…So certainly the province at the very least and just moving towards renewables is obviously the way to go. As for local benefits, I think everyone's going to be… yeah, I just, I'd stop right at the provincial level and say that it is probably everyone at the provincial level who's going to be getting the maximum benefit." -Frank, planner

There were also, however, a few comments from participants that indicated they would prefer the energy generated to be used within communities in Nova Scotia, and not be exported to other provinces or countries. This finding indicates that, like in the case of communities in rural Ireland (Brennan et al., 2017), local community members do have at least some inborne limit to their willingness to tolerate local impacts while benefits flow outward.

> “I mean, we did ask about where the energy goes in- that is, into the Nova Scotia grid. I guess it's almost at the level of rumors. People will tell us that the energy is going to be sold to the US anyway. And I did specifically ask about that question when I spoke on the phone and, and you know, [project representative] just explained to me how that's not even possible technically- technologically or logistically so. You know, it doesn't seem likely he would tell me a complete lie on the phone, but I don't know. So in terms of that benefit, I don't feel like it has to be local, it’s part of the whole provincial grid. So to me, that's a good benefit for the province.” -Gail, COP

5.2: Procedural Justice

As mentioned previously, the other main component of discussions around the fairness of renewable energy project siting concerns the actual processes. The methods through which planning and decision-making occur can either aid or sour stakeholder views of incoming projects (Carley & Konisky, 2020; Fast, 2017). A major aspect of procedural justice is whether local community members feel empowered to influence decisions within the project (Dwyer & Bidwell, 2019; Welton & Eisen, 2019). However, as identified in the second chapter, few participants expressed an expectation or desire for having a final say in the outcome of a project. Instead, participants were more concerned with whether the developers were able to effectively provide information and answer questions. As a result, the procedural justice findings of this research are mainly centred around how participants viewed the efforts of project planners to communicate effectively with community members, and whether it was conducted in an open and inclusive manner.

The wind project community events where project recruitment occurred all had a similar format wherein project representatives were spread out around a room beside boards displaying information on various aspects of the project. At each of these boards, project representatives could answer questions of community members. In speaking with Mary, this method of organizing events was brought up as something that she was not positive about in terms of community engagement.

> "And it seems like this new style of engagement sessions is that you go in, there are stations for information or there may be people you can talk to, but it's not a community engagement thing in the sense that we as the community sit together and listen to a presentation and then have questions, you know, able to ask questions." -Mary, COP

In Mary's words, this method of soliciting the questions and opinions of members of the community is differentiated from engaging with the community as a unit. Part of the reason that Mary thinks of these events as not representing a 'true' form of community engagement is that the visitors cannot hear and build upon each other's comments and concerns and are thus unable to develop a "group cohesion."

Jane also alluded to the benefit of being able to attend events with fellow community members without directly mentioning interest in a group-format:

> "And I have another neighbor, […]who is very skeptical of a lot of things and has a lot of pointed questions. And when she asks her questions, I realize, 'oh, yeah, I never thought about that.'" -Jane, COP

Gail also claimed that the group format was something that she would be interested in, as when the event takes the form of a drop-in open house, it becomes difficult to evaluate the level of interest and participation among the community.

> "Whereas if they had an event, that was timed, you know, it starts at 6:00 till 9:00 and we'll be there and we'll make presentations and have questions and discussions. Then, you know who's, you know, everyone's there at the same time. So it is nice to do that and be able to assess, you know, what seems to be the level of interest or participation." -Gail, COP

Mary guessed that the reason that this format was usually decided against because developers were aware that there is a potential for visitors to be agitated or volatile. It is easier to keep the event running smoothly if these kinds of outbursts are limited to one-on-one discussions. As it turns out, Mary had good reason for suspecting this to be the case.

In speaking with Connor, one of the developers who had helped organize one of the community engagement events, Mary's supposition was validated. Connor mentioned that a group question and answering format was not something they were considering. Connor stated that in a group question and answering format there was a risk of a particularly opinionated member of the audience influencing the other members of the audience to the detriment of the project. Essentially, the audience member could present themselves as an expert on the subject but without the actual credentials to back up their opinions. This distinction would be lost on the members of the crowd who are possibly being exposed to these types of projects for the first time.

In their examination of the Block Island Wind Farm planning process, Dwyer and Bidwell (2019) describe how conventional methods of community engagement like town halls promote a one-way flow of information and limit the ability of community members to make their voices heard. Instead, the authors refer positively to the 'science fair-style' arrangement of representatives at booths that allow for more "meaningful interactions" (Dwyer & Bidwell, 2019, p. 173). The same science-fair arrangement described by the authors was also used for the community engagement events in this research project—however, several interviewees expressed dissatisfaction with the format.. Although the flow of information has perhaps changed from proceeding unilaterally from the developers to the community members as distinct groups, the overall quality of the dialogue may have suffered. While individual community members may have more opportunities to have their specific questions answered, this format also deprives them of listening to and building upon each other's comments.

In the words of Ottinger et al. (2014, p. 667), group deliberation "enables diverse, even opposing, stakeholders to uncover complementarities in their positions, create new paths that are superior to those that any individual actor could have envisioned, and reach consensus on complex issues of common concern." Without the ability to answer questions as a group, it can "leave residents feeling like victims of a 'divide-and-conquer' strategy'" (Fast et al., 2016, p. 5). It cannot be said that participants lost trust in the projects simply because they did not have the chance to ask questions as a group. However, in a worst-case scenario, the decision to have only one-on-one engagements with visitors can be viewed as an attempt to inhibit greater community cohesion that could result from a group question-and-answering format.

In addition, there is a case to be made that a power imbalance has been created in this format. The developers not only possess all the answers but have also coordinated as a group prior to the event to ensure that their message is consistent. Through this method of organization for community events, the project representatives ensure that the only variety of knowledge being broadcast to the community is expert information. In the UK, for example, there is a tendency in wind project decision-making to emphasize technical expert information as opposed to lay interpretations (Aitken, 2010b; Rydin et al., 2015).

As mentioned by Aitken (2010b), public hearings for wind projects in the UK often tie the legitimacy of information presented to the credentials of its presenter. Over the course of multiple hearings, a precedent is created where the only information worth hearing or debating comes from experts. However, local opposition groups are much less likely to have the same extent of expert knowledge as the project's proponents and are thus at a disadvantage regardless of the accuracy of their contributions. The wind projects observed in this research similarly create areas where only expert information (coming from the developers) is allowed to be shared with the visitors, implicitly rendering it the only legitimate information.

Visitors, meanwhile, have only the questions that they arrive with, and are unlikely to remain present at the event for multiple hours to solicit the opinions and questions of their fellow community members. Indeed, it was often even difficult for participants to gauge the level of community interest in the projects during their respective visiting periods—something that a community meeting scheduled and advertised for a specific time and place would have better facilitated. Absent a sense of "collective efficacy," it may be that community members will feel powerless to influence

decision-making, forcing them to accept change or detach themselves from the place entirely (Devine-Wright, 2009, p. 435).

Continuing the theme of power imbalance, the Higgins Mountain participants felt that their appeals to public officials were having little effect. Again, echoing the writings of O'Sullivan et al. (2020), Tom reported in his interview that he felt that the chief concern of the municipal officials was to ensure that the area remained an attractive site for the wind project and its attendant tax revenue.

> "You know, if you say no to that wind farm, that is like, they see it as lost revenue. And I understand that, you know? Lost jobs and lost everything. Yeah, there is some of that. So every wind farm that goes up is some work being done and some money being generated for the town right?" -Tom, COP

Interviews with Robert and Alan also reinforced the theme that municipal entities are often originally attracted to the idea of accepting a renewable energy project for the economic benefits.

> "That's when the wind project was being discussed and I found that group of the councillors basically to be backing the project without really a good handle on the knowledge of the project. But I think what drove that is that they could see money coming into their community and it took a while for the real details of the project to sink in." -Alan

For Tom, part of the identified issue is that the wind project opponents often must resort to a repetitive statement of their opposition to the project that the municipal leaders almost automatically discount: "They're like, 'Oh, okay, it's you guys, yeah. You're just gonna say you don't want this.'" The issue of community members getting across their

voice is also expressed by Vivian in the case of the environmental assessment process. As mentioned previously, the RBP process is carried out by the U.S. based administrator Coho. The concern of the community members is that they receive no indication for how their outreaches to the company are treated. According to Vivian, Coho is less likely to treat their testimony as significant on account of the company's more distributed and larger-picture mandate:

> "A lot of our concerns would seem ridiculous or overly sentimental to them. They would not have any history in Nova Scotia or any understanding of sort of the geography or cultural values you know, to Nova Scotians." -Vivian, COP

The lack of faith of the Higgins Mountain project opponents in the public officials extends to the political administrative processes surrounding the project selection. Specifically, there was doubt that the environmental assessment process would halt the project, as other, even more environmentally destructive projects have received approval in the past. As of the time of writing, the Higgins Mountain project has received conditional approval by the province (Nova Scotia Environment, 2023b). As a result, the Protect Wentworth Valley group has filed a judicial review application claiming that the minister has failed to address the project's impacts on the local environment and economy (Willick, 2023).

It does appear that Bailey and Darkal (2018, p. 339) have reason when they state that where objections to a project "are not expressed in justice language, the greater the likelihood of them being seen as less important by decision-makers regardless of the merits of the arguments, particularly where they are minority viewpoints."

Authors have previously identified the difficulties that lay citizens face in attempting to challenge a project's siting. As mentioned by Wright (2012), it is often the financial viability of a project that has the greatest impact on deciding whether or not a project is successfully deployed rather than social acceptability. Furthermore, it is difficult for a governing body to reconcile the objections to a renewable energy project at the local scale when they are focussed on the larger scale benefits, be they financial or environmental in nature (Bailey & Darkal, 2018; Ottinger et al., 2014). Instead, public officials may be "trying to find a way to deal with the publics' concerns without dismissing them completely or classifying them as unimportant, and yet still allow the development to proceed" (Rydin et al., 2015). In addition, Clausen et al. (2021, p. 735) argue that the 'invited participation' of public hearings and discussions is often not a sufficiently fair process, as officials have the sole power to "exclude emergent values that do not 'fit' into existing objectives."

While the Wentworth Valley community members may not feel like their objections are being taken seriously by developers and public officials, the mere fact that they have been able to mount a campaign against the wind project is significant— and is also related to a balance of power. In this instance, the community members have more capabilities than other typically rural locations. While the participants may dislike the implication that their concerns amount to NIMBY complaints from wealthy secondary homeowners, the fact remains that they are broadly, in the words of Robert, "well-paid professional people from Halifax" who have formed a "very well educated very cohesive anti-windmill on Higgins Mountain group." This is in addition to the fact that much of

the opposition voices come from recent retirees, who now have not only the motives and time to engage in anti-wind project activities, but also the economic means.

In the case of the Wentworth Valley, the writings of O'Sullivan et al. (2020) are only partially demonstrated. Rural areas are often targeted by natural-resource extractive industries for their ideal characteristics and the relative lack of ability by host populations to resist their siting (Carley & Konisky, 2020; O'Sullivan et al., 2020). In this case, a rural area is also being targeted by a project and the local host population is attempting to resist it. What differentiates the situation is that the host population can be characterized as being educated, wealthy, and with more political capability, i.e., more capable of resisting (Bell et al., 2013; Roddis et al., 2018). As mentioned by Tom in his interview, the province of Nova Scotia is incentivizing a project of "rural colonization" by developing more properties and residences outside of urban areas and attracting wealthier owners. The question then, is whether more community and developer conflicts are in store for Nova Scotia as the dual projects of residence and turbine siting in the countryside proceed?

In terms of defusing potential conflicts between communities and developers, having a consistent relationship with the developers has a positive impact on the acceptance of a project. What having a consistent point of contact for information helps provide for is a relationship built on trust (Segreto et al., 2020). According to Hamm (2017, p. 920), one of the most stable forms of trust is the 'affinitive trust' that forms in a relationship between a trustor and trustee. Similarly, one of the most important elements identified in this research for amassing trust and acceptance is the ability of the developer

to convince the host community that they are attempting to genuinely connect with residents.

Two interviewees who had more inside knowledge of the planning aspects of wind projects emphasized the importance of fostering strong ongoing dialogue with community members. Connor noted that acting as a consistent point of contact for people to speak with was helpful in alleviating the potential concerns of local stakeholders. Despite the significant drain it imposes on time and resources to have team members maintain lines of contact with community members, Connor maintains that it has been crucial for community members to have the opportunity to have questions answered by a human 'face' of the project. Such engagement activities are also positively received by Frank, who has more experience with the municipal side of planning activities.

> "But whenever a project is done like this, where the developer gets right out front, says, 'this is what we want to do, please give us everything you can for feedback.' We love to see that because it just, it's a relationship that's built, and it can help remedy some of those negative opinions that people have. You know, the generic, the generic opinion is usually, 'oh, it's a big company coming in trying to make money.'" -Frank, planner

To further drive home the personal connection aspect, Connor states that conversations with community members were often held sitting down at the kitchen tables in their residences. This assessment is supported by Walker and Baxter's (2017a, p. 165) finding in previous Nova Scotia wind projects that 'simple social connections help build trust.' This aspect was apparent in my conversation with Jane, who spoke positively about the fact that the project developers were apparently taking the time to personally

come out to neighbour's residences to better help them understand where exactly the turbines would be sited in relation to their property. In her opinion, this effort was going beyond the bare minimum that is expected of developers.

> "So yes, she reached out to them, but I was impressed that they take the time to do that. I mean, they don't have to be doing that. I'm sure it's not in their job description to go there. -Jane, COP

There is also something of an 'insider' vs. 'outsider' theme to the answers of the participants. It was perceived as positive if the developer had a local representative in the host community, or at the very least were based out of Nova Scotia.

> "And while I think most companies are based out of Halifax now anyway, I think they've definitely shown that they are willing to meet with the community and you know, you know, try and become at least a partner of the community, if not a piece in the community itself." -Frank, planner

Robert mentioned how one reason he was able to effectively act as a liaison between wind developers and community members was that he had a substantial history within the area, and this helped to facilitate trust.

> "Took, it took a little extra time to get them comfortable. And, and one thing that I had in my advantage was I never asked anybody to sign a contract that I had not negotiated to the best of my ability for my own property, anything different than that. And, and I said, 'I'm not asking you to sign anything that I already didn't.'[…] And I like, you know, and I think I had a pretty good reputation in the area anyway doing business with most of these people anyway. So usually, you know, I didn't really get much kickback." -Robert, COI

This is one of the rationales behind community liaison committees, as information—when received by a familiar face—is more compelling to a community member than when disseminated by an unfamiliar newcomer to the area (Dwyer & Bidwell, 2019). The Higgins Mountain project participants specifically noted disapproval of the fact that project representatives were being flown out from the developers' offices in Vancouver to speak with the community.

> "Like, hire a local to talk for you, even. Wouldn't that, wouldn't that give you like, 'oh, yeah, it's- my neighbor is telling me about it, oh. I might listen.' I feel like they just approached everything wrong and, and it leaves us knowing that we are not going to get respected." -Tom, COP

Connor claimed that engaging with stakeholders and community members early on in the life of the project allowed the company to better gauge how receptive the host community would be to the siting of a wind farm. If hostility seemed high enough, then the developers would make the decision to abandon the siting. Alternatively, even where there was coordinated and active resistance to a project, having an open and ongoing dialogue with these sorts of groups did help to foster a more agreeable atmosphere. While the opponents may not have ever fully supported the project, they did compromise in the end. In a similar vein, Vivian spoke more positively of a separate nearby wind project whose developers were based out of Halifax with whom they had been able to have an ongoing dialogue: "we're not, we're not aligned, right? But certainly a better understanding of their project."

The presence of a consistent point of contact that is familiar with the details of the project is important for these dialogues with opponents and conditional supporters.

Having a new representative come to meetings without the same knowledge or concern for the community's concerns can have the effect of eroding the connection that has been formed over the course of multiple dialogues. This was the case described by Vivian when a project representative came to speak with community members but focused on aesthetic concerns—a topic that the community had long since moved past in their discussions with the developer. As a result, in Vivian's eyes "there seemed to be a lack of following up and really listening to what the community concerns were."

It should be noted that willingness to meet with and conduct personal dialogues with residents is not an example of 'formal' engagement activities. Dwyer and Bidwell (2019, p. 168) identify informal activities as any actions that are "not mandated by policy and conducted outside formal hearings or comment periods." In this case, meetings between developers and residents are informal in nature. In conjunction with the one-on-one style open house formats, Dwyer and Bidwell (2019) credit informal meetings as being key in convincing community members of the process leaders' trustworthiness and generating overall projecting acceptance. While this research project did not identify a similar positive effect of 'science fair' style engagement for project acceptance, multiple participants did speak positively about their ability to speak personally with a project representative outside of the formal engagement events and have their questions answered.

> "So, you know, as long as there are… There is the opportunity to email to them […] And so, you know, that, that type of back and forth is helpful for me because I don't necessarily have all my questions lined up in a row all at once." -Ellen, COP

Referring back to the conversation with Connor, he did stress that one of the most beneficial strategies for engaging with communities has been to constantly have personal lines of contact open, even if they imposed a strain on the time and resources of project staff. Despite this emphasis on individual interactions, there were a couple of participants who did not perceive the ability to speak personally with project representatives as going beyond the regular suite of community engagement activities that are required by legal guidelines.

> "I think they want to come in and do... They're doing their due diligence. I sort of got that sense that they're doing what they, part of what they probably have to tick off. But yeah, I don't think they're super engaged in the community. I wouldn't say." -Mary, COP

Dwyer and Bidwell (2019, p. 173) highlight that something to keep in mind is that informal activities are not subject to the "accountability of inclusion that formal processes legally require." Similarly, Simcock (2016, p. 471) notes that when the ultimate decision to act on the community's informal suggestions lies with the developer, the role of the public is limited to a 'consultative influence.'

Informal engagement activities may be useful starting points for answering questions and ascertaining the expectations of community members, but it should be recognized that their ultimate value lies in whether they deliver on their promises. One of Fred's major complaints surrounding wind developments is that once ownership is transferred, subsequent developers are only obligated to fulfill their contractual obligations. Any other promises made by the previous owner are non-binding. As a result, the project representatives are more likely to be perceived as, in the words of Fred, "a

politician promising to fix things and then getting in and not fixing anything." For these reasons, it may be helpful if projects follow the suggestions of Ottinger et al., (2014) and Fast et al. (2016, p. 5): that instead of adhering to a certain style or set amount of engagement activities, developers should focus on a "specific outcome, with an embedded expectation that the project will change depending on what the proponent learns from community members."

The difficulty in building a relationship with local community members once it has been lost is evident in the reactions of the Higgins Mountain interviewees. To reiterate, the community members of the Wentworth Valley originally began their experience with the Higgins Mountain project planning process with a neutral to positive perspective on wind energy. After losing faith in the developers' capabilities early on, the participants report that there is little the developers can do to regain the benefit of the doubt. For example, the developers claim that they reduced the number of turbines by five in response to the concerns of the community. However, the community members believe that the turbines were removed because the provincial government reduced the allotted number of available megawatts for the projects, and it was simply practical for the developers to remove the turbines that were the most impactful.

> "I think some of that was in response to our concerns. More of it was because the province went from initially 150 megawatts to 100. So they, there was, they needed less. And, and so… But, but they'll say that it's because of the concerns related to visual impact." -Vivian, COP

> "So they dropped a few turbines. And of course, you know, they dropped the ones that were the most- are the ones that they complained about the most. So it looked like they were doing something good. But the thing is, the fact is they actually just were operating within their same… same guidelines." -Tom, COP

Through this lens, the downsizing of the turbines represents less a genuine willingness to alter the project based on the feedback of the community, and more an opportunity to present an image of responsibility to the wider public (MacDonald et al., 2017). Regardless of the actual intentions behind the move, the fact remains that, as suggested by Firestone et al. (2020), the lack of trust motivates the community members to regard all of the developer's decisions with suspicion. In speaking with the participants, the prevailing sentiment of the Higgins Mountain project opponents is that the opportunity for collaboration has passed, and only the developer's abandonment of project activities is sufficient.

Although this research has primarily focused on the concept of relationships and trust formed through early and ongoing dialogue, the aftermath of the process is also critical. It is only after the end of the project's construction that the host community can verify whether the information that they received from project representatives was accurate. For example, Staupe-Delgado and Coombes (2020) describe the case of a town in western Norway that was originally supportive of a nearby wind park (a stance that the authors attribute to the town's urban character). However, the project proved to be more visually and auditorily impactful than the developers had indicated to the residents. As a result, the community members feel that the trust that they placed in the developers has

been betrayed, at a point in the project where they no longer have the opportunity to protest.

The Norway case is similar to the experience of Fred, who passively accepted the nearby siting of a project only to be subject to much more impact than was indicated by the developers. Although the betrayal of a community's trust may seem inconsequential in the period after which a project has successfully been implemented, there is still the potential for disgruntled host populations to coordinate with other groups in the area to mount significant challenges to further wind project siting activities. Fred himself has personally travelled to many other engagement events for wind projects in the province to provide his testimony as the worst-case scenario for a project that has not effectively employed a "precautionary principle" (Staupe-Delgado & Coombes, 2020). This is one area where more efforts could be placed in learning lessons for application in future wind project siting activities. While the project developers approached at community events did emphasize that having an ongoing dialogue with the local community was important, they also admitted that it was not a policy to return back to the project area after it was completed to ascertain the full range of actual impacts on the host population (Personal communication, 2023).

Chapter 6: The View from Home

This chapter examines how participants evaluate the communities and landscapes that they are a part of, and how their perceptions of the wind projects are affected as a result. This research identifies that the most overtly antagonistic attitudes to the projects were linked to a perceived lack of fit between a wind project and the surrounding area's intended usage. Meanwhile, other participants were more amenable to the projects, recognizing the benefits of wind energy by making comparisons to alternate, less desirable, sources of energy. Finally, some of the answers of participants indicate that past and future wind project siting in Nova Scotia may contribute to a greater familiarization and acceptance from the wider population.

6.1 Place-Project Fit

The extent of the opposition to the Higgins Mountain project remains somewhat striking even when considering the testimonies of the developer's community engagement missteps. The contrast in attitudes to the other projects is all the more notable by virtue of the fact that all of these projects are still in a relatively early state. The real construction phase has yet to start, and community members have not yet been exposed to direct visual and auditory impacts.

Based on the responses of participants, this research argues that one of the major reasons that the other interviewees and their respective communities have not formed similar anti-development groups is that they do not hold the same subjective identification of their environment. While the areas of the Benjamins Mill and Weavers Mountain projects are similar to Higgins Mountain by virtue of the fact that they are set

in rural areas with significant biodiversity and human recreation activities, they differ in their conceptualization by their host populations.

Both the Benjamins Mill and Weavers Mountain project areas have been exposed to extractive forestry operations and highway construction projects in the past, and as a result, the introduction of a wind project is not as disruptive as it may be in other, more undisturbed areas (Morris-Underhill, 2023). As identified by van Veelen and Haggett (2017, p. 544), place-protective opponents of wind projects are likely to emphasize the 'untouched aspect' of the local area. The participants of this research are, in contrast, aware that the local environment has undergone change in the past. This is also identified by Robert as one of the reasons community acceptance has been high for the Ellershouse Wind Project: the area has longstanding ties to the old pulp mill, which the wind farm is now seen as replacing.

Meanwhile, the Higgins Mountain project area, and the Wentworth Valley specifically, have had an intention crafted for it by its inhabitants, namely, as an area dedicated to recreational activities based around the area's natural aesthetics. In their examination of reactions to wind developments in the Icelandic Central Highlands, Sæþórsdóttir and Ólafsdóttir (2019) find that nature-based tourists are opposed to the imposition of turbines on the natural beauty of the area. Locals are similarly concerned that tourists may elect to frequent areas where wind developments are less prominent.

This is the fear of the Higgins Mountain opponents: that the rural recreational area of the Wentworth Valley will be negatively impacted by the siting of the turbines, and that groups like skiers and bikers will take their business elsewhere. With that being said, the impact of wind projects on tourism is by no means confirmed. Multiple authors have

found that neither the planned nor existing presence of wind projects have had a measurable impact on tourism in areas like Scotland and Iceland (Chappel et al., 2020; Sæþórsdóttir & Ólafsdóttir 2019; Warren & McFadyen, 2010). Meanwhile, the response of the Nova Scotia Department of Economic and Rural Development and Tourism (now the Department of Business) to concerns was that 'wind turbines are not expected to have any significant negative impact on tourism or recreation' (Ottinger et al., 2014).

Regardless, the participants opposed to Higgins Mountain have identified the character of the area and are resistant to a project that they view as threatening it. When it comes to landscape impacts, "what is important for the supportive attitudes to renewable energy projects is how these wind development proposals are interpreted and evaluated rather than the transformative changes per se" (Hammami & Al Moosa, 2021, p. 12).

All of these observations speak to the work of Buchmayr et al. (2020) who suggest that acceptance of a wind project is dependent on whether the host area is perceived as one of natural beauty or as an area intended for economic activities. The Wentworth Valley *is* being viewed as an area for economic activities, but this hinges on the continued maintenance of the natural beauty of the area.

> "I mean, half of the new development around here is, is, you know, it's people coming because of that, because of the serenity, because of the beauty. And so both from an economic development perspective and from a, you know, quality of life, recreation… You know, I think a lot of people have recognized sort of the benefits of the outdoors given the pandemic, you know, on their health and mental wellbeing." -Vivian, COP

Based on the above considerations, the suggestion of De Sousa and Kastenholz (2015) that there be increased emphasis in national guidelines for the impact of wind turbines on tourism appears well-founded. If nothing else, increased study may aid in fostering energy-tourism activities in project areas. For example, De Sousa and Kastenholz (2015, p. 1248) and Broekel and Alfken (2015) suggest that offering informational activities such as "some type of environmental education center" may attract eco-tourists to the area. Such an activity was identified by Gail as a method for involving the local community in the project:

> "An information centre? So people from the community can go to it and learn about wind energy and maybe go up in a wind turbine. […] Something that, you know, provides a certain open-door aspect to, to a local community. That would be interesting." -Gail, COP

Project fit with the landscape did not always decide the opinion of the project. Multiple participants agreed that the industrial character of a renewable energy project did not match the serene, forested areas that they lived nearby. Still, they ultimately expressed an opinion that the larger environmental benefits of the project outweighed the mismatch with the visuals and noises of the surrounding area.

> "I don't think that the energy project will in any way impact my connection to the landscape. Um, I may focus on different parts of the landscape, and at the same time I would recognize that the project is contributing to something that I think is valuable for the, you know, the perpetuation of the landscape in some ways in that it, it will, it may, reduce the need for more destructive projects that would produce the same amount of energy." -Ellen, COP

Firestone et al. (2019, p. 317) argue that opinions of a proposed siting of a wind project should not be based on a simple "binary" choice of "wind power or not." Instead, the choice to support a wind energy project is placed in the context of other, alternative sources of energy. Firestone et al. (2019) and Jacquet (2012) find that prospective host communities are more inclined to support the siting of a wind project than another conventional fossil-fuel or nuclear energy development located at a similar distance. The same observation was made in this research: that wind project supporters would much rather a wind project be located near them than a fossil fuel or nuclear energy development.

Multiple interviewees made comparisons between wind energy projects to other possible alternatives. Early on in my interview with Jane, she stressed the fact that the project was a better alternative than things like a coal mine, refinery, or mine, adding: "I cannot complain about this. I'm all for it." Similarly, Ellen mentioned how there were myriad alternatives that could be impacting the aesthetics of the environment without the 'clean' characterization of wind energy.

> "I mean, you know, there could be all kinds of environmentally destructive things that could- that could, could be, gosh, don't give anybody any ideas! But it could have, could, you know, come up that, that I would be much more concerned about. That I would be concerned about, as opposed to that which I am not concerned about in a negative way." -Ellen, COP

Gail mentioned that nuclear energy could be a viable alternative to wind, provided that the public's safety could be guaranteed—adding that it would be more acceptable than a coal-powered energy project. Without making the comparison directly, Gail also

mentioned that one of her few possible concerns for the project would be that nearby construction activities could potentially make it easier for a mining project to have access to the area.

> "You know what the biggest worry is? The worst thing is mining. The worst thing is that any mining company can come in. And if they find what's considered to be a- I don't even know the terminology, you know, a resource that they can claim. They can claim anything even if it's not their property. So I guess any access roads into turbines could in theory make it easier for that." -Gail, COP

There is a theme of rationalization among these participants that while it may be preferable not to have a wind project and its associated impacts, the alternative could be the hosting of a far more deleterious energy extractive project. Therefore, while there were potential ecological impacts from the wind projects, they still possessed a 'fit' with the local environment on account of their clean character and perceived role in reducing climate change-related harms to the local nature.

The rationalization also extends to aesthetic impacts, with participants mentioning how they would prefer not to be subject to visual alterations of the landscape, but still willing to acclimate to the sight of turbines on account of their 'clean' character. This observation brings to mind Hamm's (2017, p. 928) suggestion of the value of the 'trust-as-choice' concept. In this conceptualization, trust is based less on the perceived trustworthiness of an actor than it is on the belief that the actor is necessary for the attainment of a valued benefit. In this case, that benefit is the contribution to clean energy and climate change mitigation. While participants may not fully trust privatized energy generation, nor expect to escape negative impacts to their environment, they will still

cooperate on account of the recognition that the developers represent the best current option for meeting renewable energy goals.

In presenting a wind project to prospective host communities, it may be beneficial to have residents reflect on their preferences for other energy alternatives. Not only would this place energy preferences in a more accurate "societal context," but it may also cause undecided or conditional supporters to become more amenable to wind projects as they reflect on the less desirable alternatives that they could be faced with (Firestone et al., 2019, p. 317).

Alternatively, greater reflection on energy choices could also have the opposite effect and lead to the solidification of disapproval of a wind project. In the context of this research, the participants who were more opposed to their respective wind developments unsurprisingly have drawn different conclusions than their wind energy-supporting counterparts. These participants have made a different calculation: that small-scale solar or centralized nuclear projects were preferable to wind projects. Again, opponents spoke to the local ecological impact of wind projects.

> "I mean, we do question whether these are green. You know, I don't I don't think the- tons and tons of concrete, which, you know, there's a lot of emissions go with the, you know, a lot, a lot of road building, a lot of blasting. You know, we've seen pictures and videos of places around the world where, you know, environmentally sensitive areas like, like this one, have been devastated." -Vivian, COP

Tom also mentions that he voiced concerns at the information event regarding the ecological impacts of the project and the potential for project components to end up in landfills. The response to Tom by of one of the project representatives was to ask: 'it's

better than coal, isn't it?' While Tom did agree that the project was objectively more environmentally friendly than a coal project, he added that this did not change the fact that he had serious misgivings about whether the project and its developers were the correct fit for the local area and environment.

Beyond the ecological impact, the rationale for opponents is that small-scale solar and nuclear generation are less distributed and would have less of an overall footprint on the natural landscape. As mentioned by Fred, "when you start to include the footprint of the turbines, the roads, the clearing for transmission lines, clearing for substations, that's a lot of surface area over a large area." In addition, in the case of nuclear energy in particular, the more reliable and less intermittent energy generation was viewed as better aligned with the province's goal to source its energy needs from non-fossil fuel sources. At a community meeting with a public official, Vivian described significant interest from community members in nuclear energy capacity, largely based on the limitations of wind energy consistency.

> "I mean, they're not…they're, they're clearly limited in the answer that they can provide, given, you know, the capacity and given, you know, that they, as you have, you know, the wind's not going all the time. So, you know, it's intermittent. So there always has to be a balance, right? So, you know, we need we need to provide for that. And that's a- that's a concern." -Vivian, COP

Strong environmental supporters were also willing to reduce their energy consumption habits in exchange for the utilization of a clean energy choice.

> Interviewer: "Would you trade-off between reliability and, you know, natural resources? Like, let's say, we could move entirely away from coal-fired plants.

But in doing so, you know, we'd have to reduce our energy supply and we'd have to have some austerity measures for energy. Would you still support that?"

Alan, COI: "Absolutely."

In any case, reflection on the full scope of energy choices is recommended for stakeholders so that they may better identify what aspects of energy generation matter the most to themselves (Liu et al., 2022). Simcock (2016, p. 473) mentions that opponents of a community wind project questioned the "suitability" of the wind project for the local area and claimed that the decision over which energy technology to use should have been presented to the community. While this specific criticism pertains to a community-led project, it does illustrate that for a planning process to be truly meaningful, an element of choice should be offered to community members in deciding which energy type the area will host.

One suggestion for achieving more mindful siting practices is offered by Doelle and Critchley (2015), who advocate for the use of a strategic environmental assessment in Nova Scotia. The SEA should be proactive and implemented early, as well as regularly updated to account for changing conditions. Beyond assessing sites for their suitability, the SEA would also, in accord with the above suggestion, allow for the comparison of wind with other types of renewable energies:

> […] a SEA would give guidance on how to ensure the renewable energy target is met in a manner that minimizes impacts, risks, and uncertainties while maximizing benefits. This would include appropriate siting decisions, mitigation measures, but also consideration of the contribution of wind versus other forms of

renewables, as well as the contribution of conservation and efficiency to the goals of the renewable energy strategy (Doelle & Critchley, 2015, p, 111)

6.2 Familiarization with Wind Projects

In the case of this research, the responses of multiple participants lend some credence to the suggestion of Chappell et al. (2020) that, given enough time, people will form connections even to anthropogenic landscapes—in this case, wind turbines. Wind turbines may effectively come to factor into some people's climax landscapes, whereupon they are amenable to the siting of further similar developments. This idea was viewed most clearly in the response of Jane, who guessed that people were becoming more familiar to wind projects based on the relatively common sight of turbines in Nova Scotia:

> "[…] people are used to these wind turbines. You drive to New Glasgow, you see them on Dalhousie Mountain, whatever. They're, they're everywhere. We're used to seeing them. So they're becoming part -they've really becoming part of our, of what people have adjusted to already. So I don't think they deter anyone from living here because it's just one of those things that's on every horizon now. Or it will be." -Jane, COP

The sentiment was repeated by Gail, who currently already lives within view of another wind farm. Gail claims she does not mind the sight of the wind turbines and described how "they're all over the place at this end of the of the province." As well, Alan invoked a psychological aspect to wind turbine acceptance by emphasizing its clean energy contribution.

> "Yeah, I see it as an addition. A positive addition. A wind turbine, look at it on the horizon. It's beautiful. So that was my approach to people that wished to say something in a boat or against the view. It's beautiful. Think about it, look what it's doing." -Alan, COI

Taken together, the ongoing familiarization with turbines may promote local acceptance of future developments. With that being said, it seems unlikely that the local community members will have a particular sense of ownership or pride in this current slate of wind farms, as the main project decisions are being carried through by private developers and larger community partnerships. A couple of participants also believed that community interest would be greater in the wind projects if they were the product of the local community rather than external developers. Despite these opinions, authors have also cautioned that community ownership on its own is not sufficient for majority acceptance of a wind project. Instead, acceptance is more motivated by specific fair outcomes in planning and distribution of benefits along with a familiarity and positive history with wind projects (Baxter et al., 2020).

While Nova Scotia may align with the Scotland experience and public acceptance of projects will spread over time, this is not guaranteed. As an alternate potential outcome, Anders et al. (2020) report that exposure to and familiarity with local wind projects in Norway has only reduced acceptance for further siting. Similarly, Roddis et al. (2018, p.362) find that planned onshore wind projects in the UK are 6.6% less likely to succeed with each passing year indicating that either the population is becoming more opposed to wind developments, or that the number of ideal locations for siting are dwindling. In discussion with Connor, he guessed that people were actually more

accepting of wind developments because they are *not* currently widespread in Nova Scotia. As more wind farms are developed, and more people have the chance to be exposed to their effects, opinions may be less optimistic of a planned nearby development. This viewpoint speaks to the findings of Roddis et al. (2018), and one of the concerns of Fred: that as of right now, these projects are being located in the "best areas," and coming into opposition with local community groups. The question remains, what will happen once subsequent projects begin to select the 'rest' of the province for wind developments?

As mentioned previously, many of the inhabitants of the project host areas were specifically attracted to the idea of living within a rural, unspoiled landscape. This preference for nature-based living has created a dilemma, as the prime locations for the siting of renewable energy projects are in those same rural areas. For Fred, one of his main ongoing concerns is that, when he decides to move, he has no assurances that another project will not be sited near him, restarting the process once again.

> "There's nothing. So we're very rural. We may be better off being in a place that is perhaps rural, but not so sparse for population. There's a very fine line to walk and then you just hope, like, if you're next to a farmer that the farmer doesn't decide to sell off a bunch of land for a solar project." -Fred, COI

In addition, there is the possibility that the projects may expand even further in the future. As mentioned by Broekel and Alfken (2015, p. 511), wind turbine projects have grown "considerably in size and capacity" over time. While Mary believed that the project nearby her would not be impacting her directly, there were talks of a future

expansion that would drastically increase the number of turbines and thus place the impacts closer to her, possibly requiring her to move.

> Interviewer: “But, you know, you're keeping an eye, though, on this first stage because, you know, you're thinking ahead, maybe, right? To the second stage.”
>
> Mary, COP: “Yeah, yeah. My kids will possibly take over this home, so they may be, their sky may be affected.”

Mary also commented on the difficult situation people are placed in when trying to avoid industrialized developments in rural areas, recounting the plight of a neighbour who had moved deeper into the woods to avoid the noise of the nearby highway. The province has now begun to twin the highway, running closer to the neighbour’s house, ensuring that they are subject to more noise disruption now than if they had stayed:

> “So it's interesting when people do that, they, people do take that into account when they're deciding where to go. So, yeah, I can imagine if you- anywhere where you're now going to see these big towers, you’re probably- if you're attracted to the idea of rural life, you're going to probably say ‘nuh-uh.’ So I can imagine it could drop the value of property in the area for sure.” -Mary, COP

With that being said, participants continue to maintain a ‘wait and see’ approach with these projects. For the most part, the interviewees do not anticipate the projects to meaningfully alter the willingness of local community members to reside in the area.

> Gail, COP: “Um, not sure this one would make that much of a difference, to be honest.

Interviewer: “Okay. So although, yeah, you’ve heard some negativity. I mean, no one’s really talking about, like, leaving the area because of the project, right?

Gail, COP: “Oh, no, no.”

Interviewer: “do you do you think that this like, when the project goes up, it's still going to be a place where people will want to live?”

Ellen, COP: “I would think so. Um, the topography is such that, um, you know, if you take an area of, say, I don't know, five square kilometers or something like that, the, the direct impact, the visual impact, possibly the sound impact would vary significantly depending on exactly where you're situated.”

The above findings indicate an opportunity for a more prolonged longitudinal study to identify how opinions of wind projects in Nova Scotia shift over time in response to their continued siting. Currently, few studies in North America have examined changes to opinions of wind developments in the construction and post-construction phases (Rand & Hoen, 2017).

Chapter 7: Moving Forward…

No participants found that their original opinion of the wind project sited in their area had been altered as a result of their engagement with this research project. However, many participants did express that they found the interview questions helpful as they induced a greater cognizance of the various elements surrounding the projects. This is one of the values of this kind of qualitative research. As mentioned by Boudet (2019, p. 447), energy and its production are often invisible to the average consumer outside of times of crisis. Because of this lack of day-to-day relevancy, members of the public are not often inclined to consider where and how the energy they use is being generated—leading to ambivalence toward renewable energy developments.

Taken together with this research's finding that many of the oppositional participants had not begun researching wind energy until after they had already developed negative attitudes, there should be a concentrated effort on the part of developers to broach themes of fairness and place connection with local community members early in the planning process (Upham, 2018). Through this reflection process, community members will have the opportunity to consider the impacts and benefits that the project will present, allowing them to "develop their capacities to articulate their interests and concerns and also come to understand how their interests and concerns relate to those of others" (Dietz & Stern, 2008, p. 51).

Developers should also be clear early on in the process of what aspects of the project are open to alterations, and how they will incorporate the input of community members (Bailey & Darkal, 2018). As mentioned by Walker and Baxter (2017a, p. 168),

for engagement processes to be durable there must be some form of concrete sign to local community members that they have an ability to impact the outcome of the project:

> When people take the time to share their opinions but nothing is done about them, there is an understandable degree of frustration in the process. At the very least the parameters and goals of public engagement need to be clear – what aspects of the project are alterable through such interactions.

Even if project proponents are viewed as not having all of the answers to community member's questions, it is still worthwhile to properly engage community members early on. While an honest lack of answers may inspire caution in community members, a perceived unwillingness to answer questions will only instill an adversarial sentiment toward project proponents (Brennan et al., 2017; Segreto et al., 2020).

Once again, the rationality and utility of the NIMBY concept is found to be limited. The responses of participants indicate that their main concerns are based on the impact of the project on a valued living space and zones of recreational and financial activity. More emphasis should be placed on determining the place-technology fit for prospective projects. Rather than proceed under a normative assumption that the implementation of a wind project is correct and essential, planners should evaluate whether the environment and local population would be more amenable to an alternative renewable energy type.

Through 'visioning' exercises, communities can decide for themselves the path that they wish to take in the energy transition and select a renewable energy infrastructure that is viewed as protecting rather than threatening a valued place (Upham et al., 2018). This is one area where more research efforts could be focused as well. As mentioned by

Rand and Hoen (2017) and Firestone et al. (2019), only a few studies in North America have compared attitudes toward wind energy with other energy sources.

There is the potential that these sorts of assessments are beyond the abilities of individual proponent companies and municipalities (Watson et al., 2012). Instead, part of the effort could be extended to the provincial government or other relevant third parties. These activities could begin with the implementation of a province-wide Strategic Environmental Assessment of the type described by Doelle & Critchley (2015), that provides a better profile of where wind projects are most viable and perhaps even desired by local communities. Based on the relative lack of concrete findings by authors concerning economic impacts, additional emphasis should also be placed on determining how the area will respond to the economic stimulation provided by hosting a renewable energy project relative to the potential impact on nature tourist activities (Rydin et al., 2015; Clausen et al., 2021).

In addition, the creation of knowledge that informs the value and relevance of wind energy should maintain a prominent space for the inclusion of local community testimony (Clausen, et al., 2021). As arguments against the siting of wind projects are borne out of the concerns of local residents, debates around them should not merely amount to arenas for the verification of expert knowledge that is disconnected from those concerns. Decision-making processes should not only provide an opportunity for participation to community members, but also empower their participation by providing information that the public can understand and easily obtain (MacDonald et al., 2017, p. 185).

Rather than just provide the image of listening to community concerns while tacitly pushing through a project, public officials should provide an avenue for the meaningful discussion of whether the proposed project has a sufficient fit with the host community and landscape.

Greater exposure to, and familiarization with, wind developments in Nova Scotia may lead to greater rates of community opposition. However, as demonstrated in this research's exploration of local views on engagement processes, the perceived fairness of the processes can significantly impact how projects are viewed. Opponents may be more inclined to agree with a project if they feel that the decisions were made fairly (Boudet, 2019; Ellis et al., 2007; Rand & Hoen, 2017).

Within these processes, the presence of a consistent trusted relationship with the developers can help in navigating community interactions. Through repeated informal interactions with community members, project representatives can demonstrate that they hold "normative and substantive objectives for the engagement processes, rather than simply instrumental goals" (Dwyer & Bidwell, 2019, p. 175).

One particularly important aspect of this relationship is ensuring that there is some sort of local connection between the developers and the host community. A more localized face of the project helps facilitate a relationship of trust based on interactions between community members and project representatives, and supplies the project proponents with a better understanding of the local context (Walker & Baxter, 2017a). Where proponents of projects are viewed as remote from the local context, it is assumed that they hold less care for the concerns of locals. For that matter, project representatives should maintain an ongoing awareness of the concerns of community members.

Outside of attempting to solicit the involvement of the most community members possible, it may be more efficient and equally worthwhile for developers to identify a smaller number of community liaisons who can better inform proponents of the community context and engage with community members in a more personal capacity (Segreto et al., 2020).

Attempting to bypass community opposition by limiting the ability of stakeholders to ask questions or restricting the process to individualized conversations may work in the short term, but this carries significant risks. While community members may acquiesce to a development, there is a greater chance that they will turn on the project if they find that there are negative externalities of the project that they were not afforded the opportunity to discuss and compromise upon with developers (O'Sullivan et al., 2020). Furthermore, the community is more likely to feel that their trust has been betrayed if the negative impacts are only apparent during or post-construction phase, as the window for meaningful alterations to the project has passed (Staupe-Delgado & Coombes, 2020). These negative accounts of project management may then spread, metastasizing into durable anti-wind opposition sentiment across the province (Walker & Baxter, 2017a).

Several limitations were identified for this research. This research project was mainly based around the in-depth exploration of themes identified in interviews with stakeholders who have attended the engagement events of projects. In other words, these participants represent the most interested segment of the local population and likely do not represent the larger communities that they are a part of.

There were also too few participants to evaluate the overall characteristics of the communities of interest. While themes were generated in relation to participants' histories and experiences in the communities, the profiles of those communities themselves were not of interest. Instead, the answers of participants were evaluated for the identification of novel themes in comparison to larger trends in research into local acceptance of renewable energy projects. Further research would be required with additional participants to identify a more representative sample of the local populations.

As noted earlier in this thesis, the wind projects associated with this research all have a majority stake from one or more Mi'kmaq communities. An interesting angle to the research could have been identifying how these communities perceive involvement and potential benefits from the projects. There is at least one news article wherein members of the Sipekne'katik First Nation express concern over the lack of transparency around financial revenue to the community from partnership with the Higgins Mountain and Wedgeport wind projects (Withers, 2022b). However, this research was originally and primarily focused on the perspectives of people living closest to the wind projects. While the scope did expand to include members of the more geographically widespread 'community of interest,' Mi'kmaq community member visitors were not encountered at any project events. The lack of First Nations perspectives represents a limitation of this research and an opportunity for additional efforts. As noted by authors, ownership of renewable energy developments by First Nations, Inuit, and Métis peoples are a possible avenue for reconciliation—providing a "potential source of political and economic sovereignty, a type of reclamation of land and environmental rights, and a response to climate justice" (Hoicka et al., 2020, p. 3; Walker et al., 2020). Further research is

required to better identify how flows of revenue from renewable energy projects such as the ones in this research enhance Indigenous peoples' capabilities to resist colonial influences and assert their self-determination (Walker et al., 2020).

In terms of research methods, this work was designed to explore which themes related to community acceptance were prominent in the thoughts of community members. As a result, the interviews often shifted focus to accommodate what the participant identified as worth speaking about. Any of the main research strands of this research—participation, justice, and place connection—could merit their own research projects. Without a specific emphasis on any one theme, the research conducted is not as in-depth as it could have been. For example, participants could have been asked more questions based around a particular theme that would have prompted more reflection. Additional research could identify novel findings related to each theme provided that they were the main subject of their own respective projects.

Future research could incorporate a more quantitative component that would allow for an accurate comparison of in-depth qualitative findings to larger trends in the populations around the projects.

Finally, this research explored only a brief period of time in the planning and implementation of the projects of interest. It is possible that the opinions of participants have changed—and will continue to—between the time of interviewing and now. Future research is recommended to assess if (and how) community views have changed after construction activities and the projects have begun operation.

Chapter 8: Conclusion

This research has examined the views and concerns of stakeholders associated with planning processes and community engagement activities of incoming wind projects through semi-structured interviews. The responses of project participants were then qualitatively analyzed with a mix of deductive and inductive coding, with findings pertaining to themes of participation, justice and fairness, and place attachment. These themes resulted in the formation of three research questions that guided this work:

1. How do local citizens view the renewable energy projects around them, and do they feel empowered to participate in their planning and/or implementation?
2. To what extent do concerns of injustice or inequality factor into local citizens' views of renewable energy projects sited nearby?
3. How do views of, and connections to, the local community or landscape influence acceptance of a renewable energy project?

A core rationale of this research was to identify the extent to which each of the above major questions factored into the daily lives of participants. It was found that participants tended to view the wind energy projects being sited nearby them as neutral or positive additions to the area. Project opponents only re-evaluated their stances after being exposed to a negative planning process experience, or debilitating sensory impacts.

Evaluating purely based on the answers of participants, it does not appear that the project proponents are attempting a more radical redistribution of control by placing decisions in the hands of local community members. Instead, the engagement activities of the developers are primarily based around the act of informing community members and soliciting their opinions. Ideally, participatory processes should involve a bilateral flow of

information, with all members having a say in the outcome of the project. However, in this case, the final decisions are firmly unilateral and reside with the developers. As a result, the level of participation that is afforded to community members is somewhere at the level of tokenism—being used for informing, consulting, and placating (Arnstein, 1969/2019; Janhunen et al., 2021). With that being said, participants did not express expectations of a larger role in the decision-making process. Instead, the visitors to engagement events were more interested in having their questions answered and ascertaining that the wind project was not something to be worried about. Similar to the observation of Firestone et al. (2019, p. 7), "the extent of participation is somewhat less important for overall perceptions of fair process than perception of the openness of the developer." In keeping with this reasoning, the most oppositional participants were those who believed that the developers were closed-off in their answers, and were attempting to satisfy the mandated community engagement process as quickly as possible. In that environment of distrust, greater community opposition was quick to follow.

The reality is that most visitors are either not capable or unwilling to involve themselves at a deeper level with the projects. This is due to a combination of factors, including a lack of time, finances, and a lack of familiarity with the technical aspects of projects (Firestone et al., 2020; Koirala et al., 2018). In addition, multiple participants identified a larger lack of interest in the projects in their areas of residence. This work's findings suggest that one of the reasons why local people are not more involved in the engagement events is because the specific profile of wind energy is viewed as more benign. This could be related to the fact that wind energy has not been as politicized in Nova Scotia, and thus is not subject to the same widespread resistance as it is in Ontario

(Walker & Baxter, 2017b). In addition, at this early stage of the project, local residents may not anticipate any direct impact from the turbines, and do not feel motivated to involve themselves. At the same time, participants spoke to the substantive benefit of having local representation on the development side, believing that it imparts a more accurate understanding of the local context and a higher sense of a duty of care.

The majority of the participants emphasized the environmental benefits of the projects. For these participants, the health of the global environment is only of less importance when compared to the sustainability of the local ecosystem. For many of the supporters of the projects, their positive perceptions are entwined with comparisons to other energy developments. Often, the comparison emphasized the potential for destructive externalities—which served to raise participants' estimation of wind projects. This is in contrast to project objectors, who drew attention to alternative resources of renewable energy that were not subject to the drawbacks of centralized wind energy, i.e., a large physical footprint and intermittency in generation. These observations indicate that it may be helpful for public officials and developers to engage early on with community members and have more in-depth discussions about which renewable energy types they would like to see in the area. The discussions with stakeholders may induce a greater willingness to accept a certain renewable energy type, or at the very least, inform developers how the intended project will be received in the area. Participants also had difficulty in identifying specific socioeconomic benefits of the projects, or critiqued their lack of relevance to the average Nova Scotian resident. This ties into the testimony of authors that community members may wish to see benefits that are more 'legacy' oriented and have practical benefits for the entire population, rather than something more abstract

like utilization of local construction companies and increased tax revenues to the municipality (Macdonald et al., 2017; Rydin et al., 2015).

The importance that participants placed on the processes surrounding the projects tended to focus on the manner in which project representatives communicated with community members. The engagement events that were held by developers followed a 'science fair' format of individual information stations where visitors could speak personally with a project representative. One of the developer-associated participants cited that this method allows for every visitor to have their questions answered without having the event dominated by a particularly belligerent project opponent. The downside of this format is that it deprives visitors of coordinating as a group and building off of each other's knowledge, something that multiple interviewees expressed interest in (Ottinger et al., 2014). In addition, having people visit the event in smaller numbers at different times limited the ability of visitors to gauge the level of community interest. While the individual conversation format has its useful qualities, developers should also consider allocating time to also have a larger group question-and-answering period. This way, community members can have a more generative dialogue with developers that allows for a more equal distribution of power in the dynamic.

The project-associated interviewees noted the benefit of maintaining personal lines of communication with community members. Similarly, community participants noted a positive reaction to the ability to speak personally with developers informally. Project opponents, meanwhile, recounted perceptions of a closed-off developer group that was not interested in engaging with community members beyond the mandated bare minimum. The words of participants support research that claims that community

members feel more engaged when they are able to have dialogues with developers that fall outside of more formalized events. The ad hoc personalized nature of these conversations provide a more personal touch to community developer relations and helps reinforce a perception of investment by the developer in the social sustainability of the project. In addition, information tends to be more trusted when it is provided by a figure who has a connection to the local area (Devine-Wright, 2012; Firestone et al., 2020). Development process leaders should consider employing a community liaison figure to act as an impartial resource for community members, and in turn avoid the negative connotation that comes with bringing in an outside figure to speak to community members with whom no relationship or trust has been built (Devine Wright, 2012). Through this more personalized liaison figure, it is possible that more community members will become aware of the larger benefits of the projects. For example, despite the participants having attended information meetings, virtually none of them spoke to the fact that the project are projected to save ratepayers $120 million annually (Smith, 2022). These more positive aspects of the projects may spread more widely in a community if they came from a trusted source.

Finally, specific attitudes toward the wind projects can be attributed to how the participants characterized the communities and landscapes that they were living in. For nearly all of the participants, they specifically chose to live in natural, rural environments. Similarly, the nature of these environments meant that participants noted an element of isolation, without constant daily interaction with close inhabitants. As a result, views of projects were mainly based on how the actual environment would be impacted, as opposed to the social ties in their communities. As previously mentioned, most

participants were neutral or positive to the projects provided that there would not be particularly debilitating impacts. This is likely due to the fact that participants had a familiarization (if more distant) with other wind projects in the province, and had an understanding that the areas that they lived in had also been subject to anthropogenic activities in the past.

As for the attitudes toward the Higgins Mountain project specifically, the relatively high degree of community opposition was likely due to the fact that the residents of the area have specifically identified the area's intended purpose as a place of recreational nature-based tourism. The placing of wind turbines in the area are opposed not just for their perceived lack of value and impact on the local wildlife, but also because they do not possess an adequate 'fit' with the area. This is the position that community members held before they attended engagement events, and their concerns were compounded by the apparent lack of care and honesty displayed by developers. Authors suggest that project-place fit is an important precondition for community acceptance. Provided that the project either fits with the history of land use in the local area, or that the project can be construed as 'protecting' the continuity of the local nearby community, then it is more likely to be accepted (Devine-Wright & Howes, 2010; Upham et al., 2018). Public officials and developers should take care to engage residents early on to identify how the local area is perceived by them, and whether the project will sufficiently match with community expectations. In sum, the worst course of action is to 'decide-announce-defend' and obstruct joint fact findings and compromises between developers and community members (Simcock, 2016).

Once again, this research was not oriented around empirically characterizing the viewpoints of community populations toward specific projects. Instead, the goal of this research was to make a broad overview of the attitudes and opinions that pervaded amongst visitors to the engagement events of wind projects. Through identifying what was on community members' minds, and evaluating how the findings fit with established research, suggestions for additional avenues of research could then be generated.

Overall, the responses of participants indicate a desire for respect and honesty in the siting process. As has been discussed, participants do not necessarily desire the highest levels of engagement or decision-making in a project. However, community members do want some sort of recognition that their desires and concerns are being considered. Developers should take care early on to implement active processes of community engagement that continue throughout the life of the project. For one, just taking the time to speak to community members in informal settings or investing in the use of a trusted community liaison can go a long way to transforming community members from "apathetic acceptors of the outcomes" to "supporters and advocates of the processes" (Dwyer & Bidwell, 2019, p. 175). Meanwhile, developers should be clear on what aspects of the project are subject to change based on community feedback and provide an opportunity for local citizens to reflect on what their contribution has contributed to. Perhaps most importantly, public officials and developers should be proactive in identifying how the project fits with the local community and area. Where large numbers of the community identify the project as a negative addition, efforts should be made to identify why and find compromises. Alternatively, in the worst-case scenario,

decision-makers should be willing to accept that the project may be better suited to another area rather than proceed heedless of the objections of community members.

Although wind energy in Nova Scotia has wider public approval and is not subject to the kind of political division found in other regions, process leaders should take care not to take this for granted. History has shown that significant barriers to wind energy have resulted from planning processes that fail to respect the people that are most liable to be impacted by them. By respecting the contributions of regular citizens, project proponents can ensure that the renewable energy transition is not just sustainable environmentally, but socially too.

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Appendix A: Interview Consent Form

DALHOUSIE UNIVERSITY

Interview Consent Form

Project title: Social Dimensions of Renewable Energy Project Acceptance.

Researcher: Grant Shaver,
MA Social Anthropology, Dalhousie University
gr735380@dal.ca
613-724-0152

Supervisor: Dr. Karen Foster
Associate Professor, SOSA
Canada Research Chair, Sustainable Rural Futures for Atlantic Canada
Karen.foster@dal.ca
902-494-3130

Thank you for your interest in participating in this research project analyzing local people's perceptions of the planning of nearby clean energy projects. The primary researcher of this project is me, Grant Shaver, a graduate student enrolled in Dalhousie University's Master's Program of Social Anthropology.

Choosing whether or not to take part in this research is entirely your choice. There will be no consequences if you decide not to participate in the research. The information below tells you about what is involved in the research, what you will be asked to do and about any benefit, risk, inconvenience, or discomfort that you might experience.

Purpose

The purpose of this research project is to use interviews to explore local community members' perceptions of renewable energy projects sited nearby, particularly focusing on themes of participation, justice, and equality, as well as community and place-attachment.

Participation

You may participate in the research project if you have resided in the area of [energy project location] for the past year, already possess a basic awareness of the [energy project] and are over the age of 19.
The interview will last between an hour and an hour-and-a-half (60-90 minutes) and will be carried out at a time and place of your choosing. With your permission, I will audio record the conversation for transcription and data analysis purposes. I will also be taking hand-written notes during the interview.

Audio recordings will be personally transcribed by the researcher. Audio and electronically typed data will both be stored in an encrypted password protected Microsoft OneDrive file. Consent forms and hand-written notes will be kept in a locked drawer in the researcher's personal residence. Handwritten notes will be transcribed to a OneDrive file. Once physical notes have been transcribed, they will be destroyed.

Withdrawing from the Study

You are free to withdraw from the study at any time until the end of the data collection period, on April 30th, 2023, at which point it will be impossible to separate the content from your interview from the research data. You may end or pause the interview at any time and refuse to answer any question. Participants can choose how they would like to receive a copy of their interview transcript and will be able to revise or withdraw any information shared with the researcher until April 30th, 2023. The data collection phase of this project will run until April 30th, 2023. Participants can also receive a summary of the final thesis for their own reference.

Possible Benefits, Risks and Discomforts

There are no direct benefits of this research project to the participant. There will be no compensation for participation apart from the purchasing of a drink or snack if the interview is conducted in a restaurant or cafe establishment, and the gratitude of the researcher.
The knowledge generated from the involvement of the participant may have benefits for similar communities or organizations involved with clean energy projects in the future.

The risks of participating in this research project are minor, and may include discomfort, emotional distress, or boredom. The participant may end the interview at any time and can refuse to answer any question. The participant may also not wish for their opinions to be known publicly if they could result in damage to personal relationship or livelihoods. All efforts will be made to keep the recorded data anonymous, and participants will be provided with a pseudonym in written works. Participants will only be able to be identified with the use of a pseudonym identifier key, which will be stored digitally in an encrypted, password-protected OneDrive file. The participant will also have the opportunity to retract or revise any recorded statements and will be able to withdraw their data from the study at any time prior to the end of the data collection period (April 30th).

Questions, Comments and Concerns

I am happy to answer any questions that you may have related to the project and the above information. Please contact the main researcher, Grant Shaver (613-724-0152, gr735380@dal.ca) [or Karen Foster (902-494-3130, Karen.Foster@dal.ca)], at any time with your questions, comments or concerns.

If you have any ethical concerns about your participation in this research, you may also contact Research Ethics, Dalhousie University at (902) 494-3423, or email: ethics@dal.ca (reference REB file # 2022-6160).

Appendix B: Signature Page

Project Title: Social Dimensions of Renewable Energy Project Acceptance.

Lead Researcher: Grant Shaver
MA Social Anthropology, Dalhousie University
gr735380@dal.ca
613-724-0152

I have read the explanation about this study. I have been given the opportunity to discuss it and my questions have been answered to my satisfaction. I understand that I have been asked to take part in one interview that will occur at a time and location acceptable to me, and that the interview will be recorded. I understand that direct quotes of things I say may be used (under a pseudonym). I freely and voluntarily agree to participate in this study, and I understand that I am free to withdraw from the study at any time, until April 30th. I understand that I am free to not answer any question that I am not comfortable with, and that I may end or pause the interview at any time.

_____	_____	_____
Name	Signature	Date

*Optional (you can still participate in the research if you select no):
I agree that my interview may be audio-recorded

_____	_____	_____
Name	Signature	Date

I would like to receive a copy of the interview transcript (produced within two weeks of the interview). ☐ Yes ☐ No

I would like to receive a summary of the finished thesis results. ☐ Yes ☐ No

I would like to receive a full copy of the finished thesis. ☐ Yes ☐ No

If you selected ‘Yes’ to receiving a copy of the interview transcript or thesis by mail or email, please provide your preferred contact details below:

_____

_____

Appendix C: Interview Questions for Local Community Members

Introductory Questions

- Have you always resided around this area? If not, when (and why) did you move here?
- Are you currently employed? If so, (and if you don't mind sharing) what is your job title?

o How long have you known about the renewable energy project being sited nearby?

o What is your immediate reaction to the project (do you believe it's a positive or negative addition to the area)?

o Can you explain why you feel that way about the project?

Participation

- Have you previously attended any information sessions or open houses related to the project?
    - Have you voiced any opinions or concerns at those public events?
    - If yes to the above, did you feel that the project representatives had appropriately responded to it?
- Do you feel that the level of participation of local members is acceptable? Why or why not?
- Do you think that local community members have been adequately consulted by project planners?
- Do you feel that you have had a reasonable opportunity to add your voice to discussions of the project?
- What kinds of activities would make you feel more involved?

o Do you think project planners have been adequately responding to local community

concerns?

- Do you feel that you have been adequately informed during the project's planning process?
- What do you expect from the project planners?

Perceptions of justice and equality

- In your opinion, what are some important benefits coming from this project?
    - Do you see any financial benefits coming from the energy project?
    - Do you see any social benefits coming from the energy project?
    - Do you believe these benefits will be felt locally?
- In your opinion, what are some negative impacts coming the project?
    - Do you believe these negative impacts will be felt locally?
- Do you think that the benefits of the project outweigh the negatives, or vice versa?
- Have you had an opportunity to discuss these benefits and impacts with project planners?
- Do you think some members of the population have a more influential voice in the planning process than others?
- Are you at all concerned that benefits of the project could be flowing outside of the local area?
- What would make an energy project seem fair and equal to you?
- Are you concerned that any positive benefits of the project will not last long?

Community

- What does the word community mean to you?

- Is it important to you that local people are involved in the planning and running of the project?
- How important is it to you that people continue to live around this area?
    - Do you think people are more or less likely to continue to reside in the area because of the project?
- In your opinion, what makes for a project that is community-oriented?
- Do you feel that the energy project matches up with the character of the local community?

Landscape Connection

- Do you consider nature an important part of your daily life?
- How do you feel about the surrounding landscape?
- How do you feel about the selected site for the energy project?
- Do you feel a particularly emotional or spiritual connection to the landscape?
    - If so, do you think that the siting of the energy project is affecting that connection?
- After answering the previous questions, has your opinion of the project changed in any way? If yes how so?

Note: The researcher will then ask if the participant has anything else they would like to talk about. Once the participant is satisfied that they have nothing else to contribute, the researcher will thank them for their time. The researcher will then remind the participant of their contact information if they have any follow-up comments, concerns, or questions.

Appendix D: Interview Questions for Project planners

Introductory Questions

- What is your role with the company?

o How long have you been involved with the project?

o Why do you believe that the project is a positive addition to the area?

Participation

- Have you been involved with any information sessions or open houses related to the project?
    - Do you remember what the major opinions or concerns were at those public events?
    - How did the project representatives go about responding to the questions or concerns?
- Do you feel that the level of participation of local members is optimal? Why or why not?
- How much effort have project planners put into consulting with local community members?
- Do you feel that local community members have had a reasonable opportunity to add their voices to discussions of the project?
- Do you think there are more activities that could go into making community members feel involved?

o Do you think project planners have been adequately responding to local community concerns?

- Do you think that local community members are being adequately informed of the project?
- What do you expect from the community members?

Perceptions of justice and equality

- In your opinion, what are some important benefits coming from this project?
    - Are financial benefits a major aspect of the energy project?
    - Are there any social benefits coming from the energy project?
    - Do you believe these financial or social benefits will be felt locally?
- In your opinion, are there any aspects that you think local community members will be opposed to?
    - Do you believe these aspects will only be felt locally?
- Do you think that the benefits of the project outweigh the complaints from the population?
- Have you had the opportunity to discuss these benefits and complaints with community members?
- Do you think some members of the population have a more influential voice in the planning process than others?
- Are you at all concerned that benefits of the project could be flowing outside of the local area?
- What are planners doing to make the project a fair and equal experience for community members?
- How long do you think the positive benefits of the project will last?

Community

- What does the word community mean to you?
- Do you consider it important that local people are involved in the planning and running of the project?
- How important is it to you that people continue to live in the area and around the project?
    - Do you think people are more or less likely to continue to reside in the area because of the project?
- In your opinion, what makes for a project that is community-oriented?
- Do you feel that the energy project matches up with the character of the local community?

Landscape Connection

- Do you consider nature an important part of your daily life?
- How do you feel about the natural landscape in the project area?
- How do you feel about the selected site for the energy project?
- Do you think the local community members feel a particularly emotional or spiritual connections to the natural landscape where the project is located?
    - Do you think that the siting of the energy project could impact that sort of connection for community members?
- After answering the previous questions, has your opinion of the project changed in any way? If yes, how so?