7-25-2022 10:00 AM

Land, wind, and power in M'Chigeeng First Nation: Perceptions of Indigenous-owned community energy in the Canadian context of low-carbon transition and reconciliation

Carelle P. Mang-Benza, *The University of Western Ontario*

Supervisor: Baxter, Jamie, *The University of Western Ontario*

A thesis submitted in partial fulfillment of the requirements for the Doctor of Philosophy degree in Geography

Abstract

The unique histories of Indigenous communities are routinely overlooked in energy transition studies. This is problematic, especially in settler countries like Canada seeking to improve the relationships between their Indigenous and non-Indigenous citizens. Parallel to this journey it calls reconciliation, Canada embarked on a low-carbon energy transition which Indigenous communities are taking an important role in. On such a backdrop, this thesis weaves qualitative and quantitative methods through three intersecting studies to investigate how the national context of energy transition and reconciliation connects to a First Nation's experience and perception of renewable energy. Study 1 analyzes narratives about energy transition and reconciliation published between 2007 and 2018, showing that they mainly originate from non-Indigenous sources, often miscasting key Indigenous concerns for autonomy. Studies 2 and 3 draw on five years of research partnership examining responses to wind turbines in M'Chigeeng First Nation, a 2,400-member community, sole owner, and operator of a 4-MW wind project selling energy to Ontario's provincial grid since 2012. Study 2 unpacks 32 interviews to show that M'Chigeeng members' support for their turbines contrasts with concerns about communication deficit, yet is tempered by their pride of owning the turbines. Building on interview findings, Study 3 shows through a survey (n=161) that most respondents, on and off-reserve, share a positive attitude towards the turbines yet are dissatisfied with past and current levels of project communication, including about benefits. Study 3 also signals the importance of human-to-human and human-to-land relationships for members. In addition to practical contributions to M'Chigeeng First Nation in the form of a report and an animated video summarizing the findings, this work enriches the Eurocentric literatures on social acceptance and energy transition with insights from Indigenous political ecology and attention to restorative justice. I argue that failure to attend to colonial legacies and advance Indigenous self-determination bears the risk of seeing this energy transition reproduce the socio-economic inequalities of the fossil fuel era, yet in a different arrangement of carbon molecules.

Keywords

Indigenous ownership; community wind energy; social acceptance; energy transition; restorative justice; participatory research.

Summary for Lay Audience

My study brings attention to Indigenous communities in the energy sector, focusing on the Canadian context where reconciliation and energy transition are important political topics. Reconciliation is defined as the improvement of relationships between Indigenous and non-Indigenous people. An energy transition is about transforming the systems that produce and distribute energy in society. The current energy transition, dictated by the climate crisis, involves expanding the use of renewable energy, which in many cases causes opposition in communities asked to host energy technologies like wind turbines. Many social science researchers in Europe and North America analyze communities' responses and energy transitions but very few examine the case of Indigenous communities. Prompted by the example of M'Chigeeng First Nation, sole owner and operator of two wind turbines in Ontario since 2012, my study examines how M'Chigeeng members perceive their project and what it means in the Canadian context. I captured members' attitude towards their wind turbines through 32 interviews and a survey (161 respondents). I found both a majority positive attitude among members living on and off-reserve and concerns about lack of communication about aspects of the project, from ownership aspects to benefits. However, owning the turbines is cause of great pride. The study also shows the importance of relationships between members and the land in a manner that is distinct from what the mainstream social acceptance research describes as place attachment. To connect M'Chigeeng project to the national context, I also examined publications on energy and reconciliation from federal and provincial energy policy documents and news media from Indigenous and non-Indigenous sources between 2007 and 2018. I found that the increasing number of publications connecting energy transition to reconciliation mainly originated from non-Indigenous voices and often misrepresented key Indigenous concerns of autonomy and healing from colonial harms. This research suggests that failure to attend to colonial legacies in this energy transition bears the risk of reproducing the socio-economic inequalities of the fossil fuel era. It is essential to better understand how the energy transition can contribute to the goal of reconciliation by bringing forward dimensions of justice and alternatives to colonial worldviews.

Co-Authorship Statement

This thesis is comprised of three manuscripts, one is being finalized and two (listed below) have already been published in academic journals.

- Mang-Benza, C., Baxter, J., & Fullerton, R. S. (2021). New Discourses on Energy Transition as an Opportunity for Reconciliation? Analyzing Indigenous and Non-Indigenous Communications in Media and Policy Documents. International Indigenous Policy Journal, 12(2), 1–27. https://doi.org/10.18584/iipj.2021.12.2.8641

- Mang-Benza, C., & Baxter, J. (2021). Not paid to dance at the powwow: Power relations, community benefits, and wind energy in M'Chigeeng First Nation, Ontario, Canada. Energy Research & Social Science, 82, 102301. https://doi.org/10.1016/J.ERSS.2021.102301

The three chapters have been co-authored with my thesis supervisor, a project investigator, and a community partner. As the first author I was primarily responsible for the conception of the work, literature review, data collection and analysis, interpretation, and drafting of the manuscripts, with each chapter being co-written for publication.

The bibliographies of the individual chapters are consistent with The University of Western Ontario Graduate and Postdoctoral Thesis requirements.

Acknowledgments

First and foremost, I praise and thank my heavenly Father, the Almighty God, for meeting all my needs and infusing me with His strength throughout this journey.

I would like to thank the many people of M'Chigeeng First Nation who supported my research, those who joined the inaugural community meeting, those who agreed to share their views via interview or survey, those who opened their homes to me especially my "Uncle", and all those who said hi somewhere "on the rez". Miigwech.

This research partnership would not have been possible without the engagement and support of M'Chigeeng Chief and Council, for that I am grateful. I would also like to thank the staff of M'Chigeeng Band Office and HIAH Corporation for stepping in and lending a hand at various moments. I am particularly grateful to the members of the Advisory Committee: Elder Alma Jean Migwans for sharing her wisdom; Grant Taibossgai for encouraging this research partnership from the beginning; and Jeff Corbiere for being a stellar example of community partner, one who pushes through thick and thin, one who goes the extra mile again and again, and one to whom I owe so much. Chi Miigwech.

My most profound gratitude goes to my supervisor, Dr Jamie Baxter, for his tireless support and guidance. Jamie, you had my back from the beginning, even before I stepped foot on campus. You had my back throughout visa applications (four in total!!), accommodation and transportation needs, scholarship applications, etc. You have been such a blessing to me, and I will be forever grateful.

Dr. Carol Hunsberger, thank you so very much for your quiet and kind mentorship, from agreeing to associate your name with my first PhD publication to reviewing this dissertation as second reader.

I wish to express my warmest thanks to Dr Bipasha Baruah, my Environment & Sustainability Program Advisor, who has been so much more. Thank you for mentoring, sharing job opportunities, and checking on me so often.

Dr Isaac Luginaah and Dr Chantelle Richmond, thank you for agreeing to serve on my graduate committee and bearing with my baby steps in this doctoral journey. I would also like to thank Ms. Susan Hare, Dr. Diana Lewis, Dr. Patrick Devine-Wright for kindly agreeing to sit as thesis examiners.

Dr Jeff Hopkins, thank you for your kind and constructive honesty when you told the social science rookie that I was in 2018: "You cannot keep writing like this!"

Many thanks to all those who supported my journey in the department of Geography and Environment and the Faculty of Social Science: Lori Johnson, Superstar Gatekeeper, Angelica Lucaci (Zumba Queen), Anna Ivanisevic, Lelanya Milley, Joe Smrekar, Mike Assaf, and Ann Seabrook. Karen Van Kerkoerle, thank you for expertly and patiently producing my study area maps and graphs. Of course, many thanks to my fellow grads for sharing ideas, sighs (of despair, fatigue, relief, etc.), and laughter.

I am grateful for the SSHRC grant secured by Dr. Baxter that supported my research and for the generosity of donors, such as the Michael J. Troughton family, who make it possible for graduate students to receive financial support through departmental bursaries, the Social Science Graduate Alumni Awards, and AER Awards.

My family has been my backbone throughout and every day. Tresor, Yoïssou, Anapou, Tephinou, je rends grâces à Dieu pour vos vies et votre amour inconditionnel. Merci Maman chérie, chers frères et sœurs, pour votre soutien même a distance.

Many thanks to my spiritual family in the Way International household, especially the Palmer's family in London, for your faithful prayers and support.

Singila mingi. Merci beaucoup. Thank you very much. Chi-Miigwech.

Table of Contents

List of Tables

List of Figures

List of Plates

List of Appendices

List of Acronyms

CRE: Community Renewable Energy

CWE: Community Wind Energy

FIT: Feed-in-Tariff

GEGEA: Green Energy and Green Economy Act

IPE: Indigenous Political Ecology

MERE: Mother Earth Renewable Energy

MLP: Multi Level Perspective

PE: Political ecology

RCAP: Royal Commission on Aboriginal Peoples

TRC: Truth and Reconciliation Commission

Chapter 1

1 Introduction

This dissertation has a double impetus. There was an initial interest in a community wind energy project, the Mother Earth Renewable Energy Project (MERE), because of its unique characteristic of being fully owned and operated by M'Chigeeng First Nation. Second, the conclusion of a nation-wide public consultation on the future of Canada's energy sector prompted a broader investigation of how such Indigenous-led projects sit in the national context. Given that the current federal government of Canada engaged the country in a transition to low-carbon energy systems and a reconciliation journey to improve relationships with Indigenous people, this dissertation questions the ongoing socio-political conversation about reconciliation, Indigenous resurgence, energy justice, and climate change, while poring on the unique case of the MERE project. The analysis of these complex connections allows for an important contribution to the community energy and energy transition literatures that remain Eurocentric in focus, overlooking Indigenous contexts and First Nations' perceptions of renewable energy projects on their traditional lands.

1.1 Setting the scene

Being a unique case of both community-owned and Indigenous-led wind energy project in Canada, the MERE project of M'Chigeeng First Nation caught the attention of an interdisciplinary team of researchers led by Dr. Jamie Baxter, Professor in the Department of Geography and Environment at the University of Western Ontario. Gathered in the SSHRC-funded MOCWE (Meaning of Community Wind Energy) project[1], the research team investigates the meanings of community-based wind energy development in several sites in Ireland and Canada (Ontario and

[1] https://coarep.uwo.ca/team.php

Nova Scotia). This dissertation addresses one of the goals of that broad project that is to explore the perceptions of wind turbines in an Indigenous community following a community renewable energy model.

1.2 Research goal and questions

This thesis aims to understand what the MERE project represents for M'Chigeeng members in relation to their values and aspirations and situate the project against the energy transition and reconciliation journeys in Canada. This goal is addressed through three independent yet related research questions:

RQ1. In which ways do public narratives on the energy transition intersect with those about reconciliation between Indigenous and non-Indigenous peoples in Canada?

RQ2. What are the perceptions of, and attitudes towards, the wind energy project in M'Chigeeng First Nation?

RQ3. To which extent does M'Chigeeng's engagement in renewable energy portend a redefinition of relationships and power in the settler Canadian society?

1.3 Organization of the thesis

This dissertation is structured around seven chapters. Chapter 1 introduces the geographic and socio-political context of the research. Chapter 2 reviews the literature and theoretical foundations that shape this work, namely the community wind energy literature, energy transitions studies, and Indigenous political ecology. Chapter 3 explains the methodological approach that blends qualitative and quantitative methods. Chapters 4, 5, and 6 form a compendium of three stand-alone articles embedded in this dissertation to show the coherent sequence from the research questions (see Table 1-1) to their discussion in Chapter 7, which concludes the thesis with contributions and limitations.

The different levels of analysis noted in Table 1-1 reflect Canada's jurisdictional splits in the energy sector and on Indigenous issues. The Canadian Constitution gives provinces authority on their energy policies and regulations but the federal government is liable for the country's

international commitments such as the Paris Agreement on climate change (Liming et al., 2008). The federal government also holds the responsibility of managing policy issues pertaining to First Nations, Inuit, and Métis peoples, including the allocation of reserve lands and financial transfers to band councils (Lachance & Rose, 2020; McFarlane & Schabus, 2017).

Table 1-1 Situating the manuscript chapters in the dissertation

	Chapter 4	Chapter 5	Chapter 6
Linked questions	RQ1	RQ2 and RQ3	RQ2 and RQ3
Level of analysis	• Provincial (Ontario) • National (Canada)	M'Chigeeng First Nation (on reserve)	M'Chigeeng First Nation (on and off reserve)
Publication status	Published in The International Indigenous Policy Journal (2021) https://doi.org/10.18584/iipj.2021.12.2.8641	Published in Energy Research and Social Science (2021) https://doi.org/10.1016/J.ERSS.2021.102301	Manuscript in preparation
Authorship	Mang-Benza, C.; Baxter, J.; Smith Fullerton, R.	Mang-Benza, C.; Baxter, J.	Mang-Benza, C.; Baxter, J.; Corbiere, J

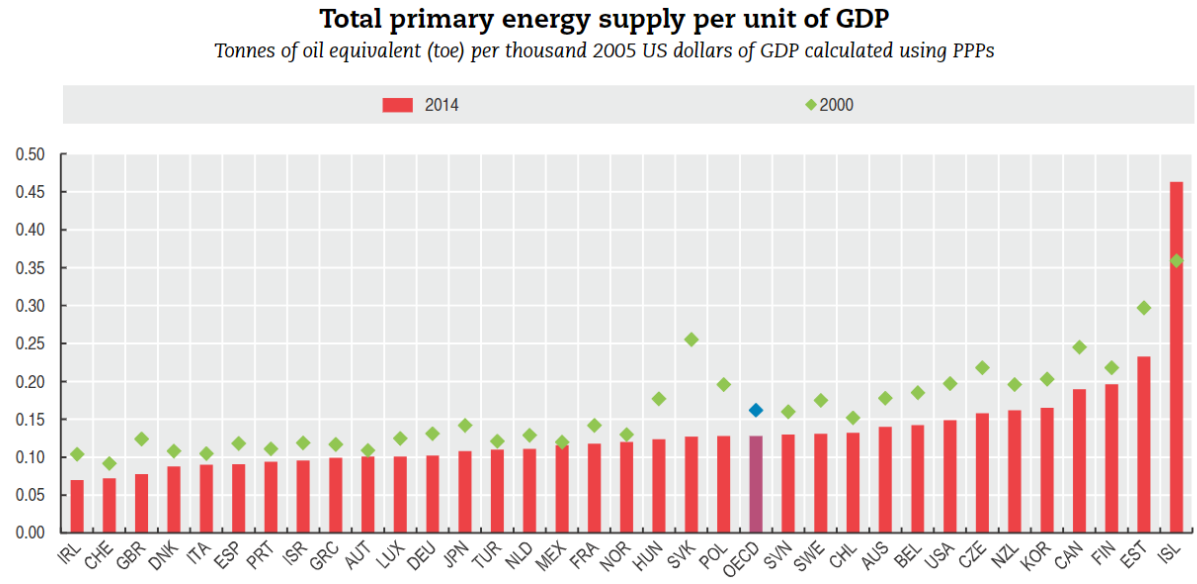
1.4 Research context: Canada 150

Understanding the MERE project requires first delving into the broader context of Canada where, over 150 years after the birth of the confederation, the country is stating its ambition to accelerate the low-carbon transition and more intentionally confront its colonial past. I describe below how Canada navigates the double imperative of decarbonization, by attempting to reduce the carbon intensity of its economic activities, especially in the energy sector, and reconciliation, by attempting to address the broken relationships between Indigenous and non-Indigenous Canadians. In this thesis, I will use the term Indigenous rather than Aboriginal, except when referring to official appellations such as the Royal Commission on Aboriginal Peoples.

1.4.1 The energy transition imperative

In successive reports, the Intergovernmental Panel on Climate Change (IPCC) confirmed the scientific evidence of global climate change and its causal association with greenhouse gas (GHG) emissions produced and accumulated by modern human activities providing food, transportation, housing, and energy. While Canada is a relatively low emitting country due to its small population, contributing to about 1.6% of global emissions, it is one of the countries with the highest GHG emissions per capita, estimated at 19.5 ton CO_2eq per person (Canada, 2019; Liming et al., 2008). Figure 1-1 shows that the energy intensity in Canada, i.e., the amount of energy required to produce a unit of Gross Domestic Product, is among the highest among industrialized countries, even higher than in the United States (OECD, 2016). Energy, including energy production, is thus a natural target of decarbonization efforts in the country.

Figure 1-1. Energy intensity in Canada (CAN) compared to other industrialized economies (OECD, 2016)



1.4.1.1 Country-wide energy transition

In Canada, provinces have jurisdiction over the generation, transmission, and distribution of electricity. However, being the custodian of multilateral environmental agreements, the federal government does set strategic objectives for the whole country. Starting with the 1974 federal Program of Energy Research and Development, Canada has been experimenting with multiple

approaches to promote cleaner energy markets, energy efficiency practices, and renewable energy schemes (Liming et al., 2008). As a resource-based economy heavily reliant on fossil fuel exports (oil, gas, and coal), the country is struggling to balance the appeal of fossil fuel revenues and its commitments under the United Nations Climate Change Convention. Liberal leaders in power since 2015 have been very vocal on the international scene about their climate ambition and commitment to a low-carbon transition in the country.

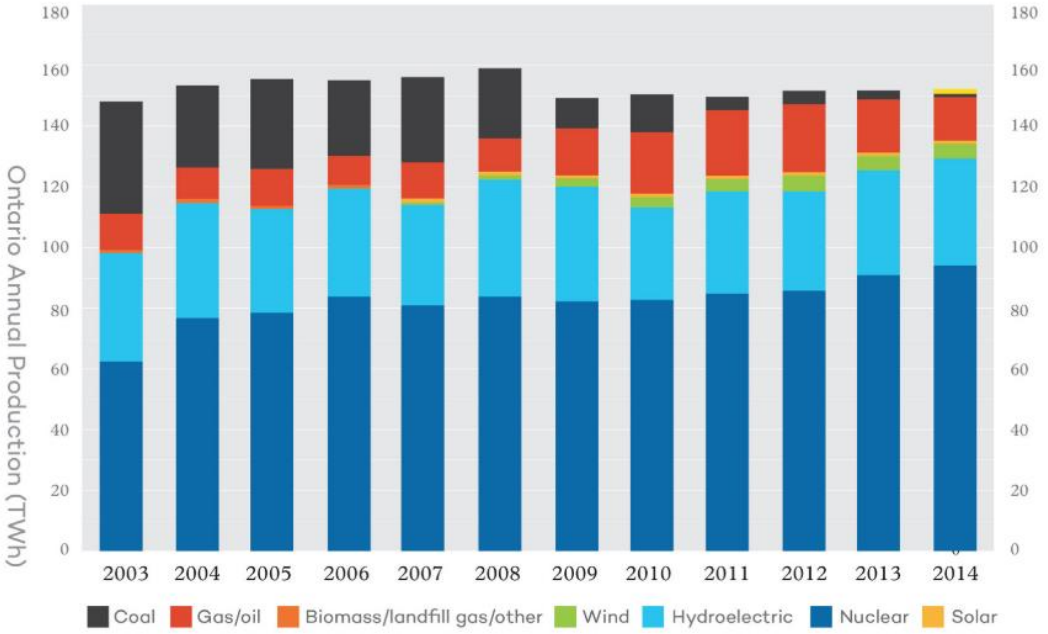
1.4.1.2 Ontario's leadership in renewable energy

Fully unpacking the energy transition imperative requires delving into the provincial energy systems due to Canada's energy federalism and provinces' jurisdiction over their energy sector. Examining Ontario's energy system is relevant here because the province is home to the MERE project and the largest installed capacity of wind energy in the country (CANWEA, 2020). Ontario has seen several major energy transformations, first in the 1960s when the province transitioned from hydro-electricity to coal-fired electricity for baseload power, then to nuclear energy to meet the rising energy demand (Harris et al., 2015). In the 21st century, the rapid rise then fall of renewables, especially wind energy, resulted less from technological factors than a planetary conjunction in the political sphere, i.e., an alignment, not of celestial bodies, but of political events and … a bacteria (Mang-Benza & Hunsberger, 2020).

In May 2000, a fatal outbreak of Escherichia coli bacteria in Walkerton, Ontario, raised environmental angst in the public and forced the Progressive Conservative Government in power at the time to pay increased attention to the connections between health and environmental issues (Harris et al., 2015). In 2001, on a backdrop of air pollution concerns, the Government announced the phase-out of coal burning at the Lakeview Power Plant by 2005, then appointed a Parliamentary Committee to investigate clean energy alternatives. The Committee Report recommended to promote renewable energy and eliminate conventional fossil fuels by 2015 (Harris et al., 2015). The decision to phase-out coal faced little opposition, mainly thanks to the absence of any coal lobby in the province, as most coal was imported from the United States (Meadowcroft, 2016). During the 2003 provincial electoral campaign, coal phase-out and health concerns were found on all electoral platforms yet with different timelines. The Liberal Party won on the promise to eliminate coal by 2007 (Harris et al., 2015). Using narratives of economic

development and increased electricity generation, the Liberal coalition acted swiftly, albeit slower than announced in their electoral program, leading the province to be almost coal-free by 2014, as illustrated by Figure 1-2 (Harris et al., 2015; Rowlands, 2007). The 2009 Green Energy and Green Economy Act (GEGEA) and its cornerstone Feed-In-Tariff (FIT) program played a big role in that rapid energy transition (Fast et al., 2016).

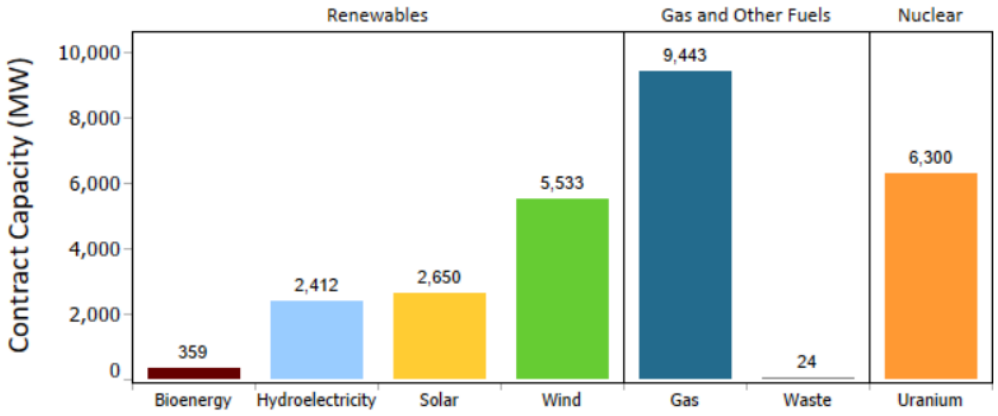
Figure 1-2. Fuel mix in Ontario electric grid from 2003 to 2014 (Harris et al., 2015, p. 4)



The stated ambition of the FIT program was to accelerate the deployment of renewable energy in the province by offering generous electricity generation contracts (above market prices at that time) and removing administrative barriers, including municipal oversight on project siting, public consultation requirements, and grid connection limitations (Fast et al., 2016). Subsequent iterations of the FIT program awarded additional incentives to renewable energy projects demonstrating support or participation of the prospective host community (Fast et al., 2016). By 2014, due to acute public opposition in rural communities identified as ostensive sites for wind projects, the FIT program was jettisoned for any project above 500 kW and replaced with the Large Renewable Procurement program that granted municipalities a stronger voice in project development. Though short-lived, the FIT programme allowed Ontario to become a national

leader in wind energy, with the province hosting aver 5,000 of Canada's 13,413 megawatts (MW) of installed wind energy capacity by 2019 (CANWEA, 2020). In 2021, wind energy provided 17% of electricity supplied in Ontario (see Figure 1-3), with close to half of that supply capacity credited to FIT projects (IESO, 2021).

Figure 1-3 Contracted energy capacity in Ontario by December 2021 (IESO, 2021, p. 9)



A notable feature of Ontario's FIT programme was the Aboriginal price-adder offered to renewable energy projects demonstrating Indigenous participation (IESO, 2021). This incentive and other measures like the Aboriginal Renewable Energy Fund, supporting up-front soft costs, and the Aboriginal Loan Guarantee Program, attracted private financing for Indigenous energy projects and prompted Indigenous communities to invest in energy projects on their traditional lands as full or partial owners (Hoicka et al., 2021). The rationale behind these incentives was the recognition of the unique structural barriers faced by Indigenous communities willing to participate in the energy sector. Among such barriers, Krupa (2012b) lists the lack of financial capital and technical capacity, unresolved land claims, and socio-economic inequalities between Indigenous and non-Indigenous Canadians. These barriers only partially illustrate the socio-economic chasm between Indigenous and non-Indigenous Canadians evident at all levels of the Canadian society, chasm so glaring that the country was forced to start addressing its root cause: colonization (Adelson, 2005).

1.4.2 The reconciliation imperative

> *The essential harm of colonization is that the living relationship between our people and our land has been severed. By fraud, abuse, violence and sheer force of numbers, white society has forced us into the situation of being refugees and trespassers in our own homelands and we are prevented from maintaining the physical, spiritual and cultural relationships necessary for our continuation as nations.*
> *Alfred Taiake in (McFarlane & Schabus, 2017, p. 11)*

As Europeans set foot across what is now Canada, they were confronted to the unique traditions, governance models, and diplomatic tools of Indigenous nations, yet deliberately sought to ignore, circumvent, or suppress those. Around the Great Lakes for example, the Haudenosaunee Nation embodied their agreement of peace with European explorers in a wampum belt formed with two parallel purple rows (McGregor, 2009). One row symbolizes the Haudenosaunee's customs and lifestyles while the second row represents the European way. Both rows running parallel signify that "neither is to steer the other's vessel" (McGregor, 2009, p. 93). Unfortunately, it was not too long before the Indigenous vessel was steered and damaged by settlers and their racism-imbued capitalist project, colonization.

> *Jonathan Jansen[2] points out that in South Africa, "It would be a mistake however, to cast all whites (or for that matter all Afrikaners) as expressing a monolithic response to defeat. Among Afrikaners, there are at least three responses to history, transition, and the future"*
> *He describes these responses as:*
> *1.Nothing happened.*
> *2.Something happened – now get over it!*
> *3.Terrible things happened.*

[2] Dr. Jonathan Jansen internationally renowned expert in education, who in 2009 became the first black rector and vice-chancellor of the University of the Free State, South Africa..

South Africa shares with Canada the experience of a national Truth and Reconciliation Commission (TRC). In the Canadian society, as in South Africa's, can be found the three above responses to colonial narratives. Confronting the perception that nothing happened in Canada, the TRC's final report released in 2015 provides context that is important to consider when examining the MERE project in M'Chigeeng First Nation. From the 16th century, Europeans' colonial machinery was set in motion to share then steal Indigenous land and resources. Settlers deliberately, cunningly, and gradually organized to erase the physical presence and cultural identity of Indigenous people. Today, Indigenous Canadians, identified by the Constitution as First Nations (977,230 people), Métis (587,545) and Inuit (65,025), represent 5% of the country population (StatCan, 2016b) and live below par in a presumed white society. Centuries of oppressive and assimilationist measures left deep individual and collective scars on Indigenous Canadians pushed to the margins of their home territories, socially and geographically (Veracini, 2011). The Indian Act was an essential piece of the destructive colonial masterplan.

1.4.2.1 The Indian Act

Settler colonialist structures enabled the cultural and physical genocide of Indigenous people which facilitated their control and dispossession (The National Inquiry into Missing and Murdered Indigenous Women and Girls, 2019b). The Indian Act is one of such structures, and arguably the most influential, carefully designed by artisans of the new Canadian Confederation to overcome the 'failures' of previous assimilationist laws such as the 1857 Act to Encourage the Gradual Civilization of Indian Tribes, the 1860 Management of Indian Lands and Properties Act, and the 1869 Gradual Enfranchisement Act. The 1876 Indian Act allowed settlers to pose Indians as wards of the state and circumvent the provisions of the Royal Proclamation of 1763 binding them to respect Aboriginal title (Collins, 2017; The National Inquiry into Missing and Murdered Indigenous Women and Girls, 2019b). By legislating Indigenous lands outside traditional governance structures and formalizing spatial enclaves called reserves, the Indian Act freed the settlers from the administrative and economic burden of controlling numerous Indigenous communities scattered across the new country (The National Inquiry into Missing and Murdered Indigenous Women and Girls, 2019b). By regulating Indigenous identity and locating some reserves outside of traditional territories, the Indian Act also tore apart families, communities,

traditions, and social ties, and turned Indigenous peoples into “citizens minus,” experiencing “high rates of poverty, low levels of education, and short life expectancy” (Daigle, 2016, p. 262).

In 1969, the White Paper commissioned by the Liberal government of Pierre Elliot Trudeau proposed to address the marginalization issue by abolishing the Indian Act and blending Indigenous people into a multicultural society. The White Paper was staunchly opposed by Indigenous activists who discerned that rescinding the Indian Act as proposed would fully achieve the assimilationist project by expunging all traces of colonial dispossession from the public consciousness, thus bringing the erasure project to a perfect completion (Cornell, 2006; Dyck & Sadik, 2016; Veracini, 2014). The perfect crime. Contesting the dismissive view of colonization as an event of the past, Indigenous activists kept pushing for public recognition of colonial violence and meaningful action to address colonial legacies.

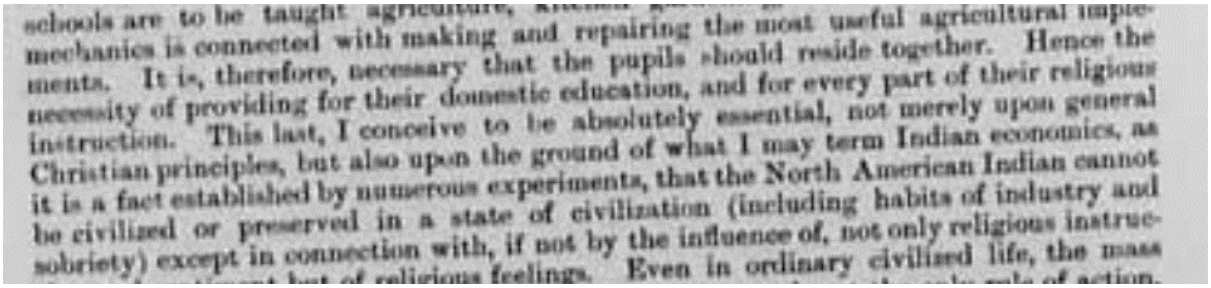
1.4.2.2 The apologies

The apology of the Conservative Prime Minister Stephen Harper in 2008 was a notable public recognition that colonization was in fact an insidious persistent structure, not a historic event that Indigenous people should, and could, get over and move past. Aired a decade after the Statement of Reconciliation issued by the Liberal government in 1998 (Government of Canada, 1998) and 17 years after the first apology made by the then Assistant Deputy Minister for Indian Affairs, Bill Van Iterson (Dorrell, 2009), the 2008 apology was the result of intense Indigenous advocacy against the Indian Residential School system.

From 1879 to 1996, government-funded residential institutions concealed as schools systematically deployed abusive physical and psychological methods to rid children of their Indigenous identity, deemed uncivilized, and their social support networks (see Plate 1-1). Most Indian Residential School students who survived internalized the abuse into their adult lives, with many struggling with social connections and addictions (Howsam, 2015).

"The legacy of Indian Residential Schools has contributed to social problems that continue to exist in many communities today. (…) The Government of Canada sincerely apologizes and asks the forgiveness of the Aboriginal peoples of this country for failing them so profoundly.
Nous le regrettons
We are sorry
Nimitataynan
Niminchinowesamin
Mamiattugut"
On behalf of the Government of Canada
The Right Honourable Stephen Harper,
Prime Minister of Canada[3]

Plate 1-1. Excerpt from the 1847 Report by Chief Superintendent of Education in Upper Canada, Egerton Ryerson, advocating the use of Industrial schools (page 73)



schools are to be taught agriculture, [illegible] mechanics is connected with making and repairing the most useful agricultural implements. It is, therefore, necessary that the pupils should reside together. Hence the necessity of providing for their domestic education, and for every part of their religious instruction. This last, I conceive to be absolutely essential, not merely upon general Christian principles, but also upon the ground of what I may term Indian economics, as it is a fact established by numerous experiments, that the North American Indian cannot be civilized or preserved in a state of civilization (including habits of industry and sobriety) except in connection with, if not by the influence of, not only religious instruc- [illegible] religious feelings. Even in ordinary civilized life, the mass

Source: https://ehprnh2mwo3.exactdn.com/wp-content/uploads/2021/01/Ryerson-Report.pdf

Long before the Harper's apology, in 1990, the public testimony of an Indian Residential School survivor, Phil Fontaine, then Grand Chief of the Manitoba Assembly of Chiefs, had sent a shockwave across the country. Revealing the abuse he endured, he called for "1) a disclosure process that may or may not take the form of public inquiry, 2) a healing process to "make our

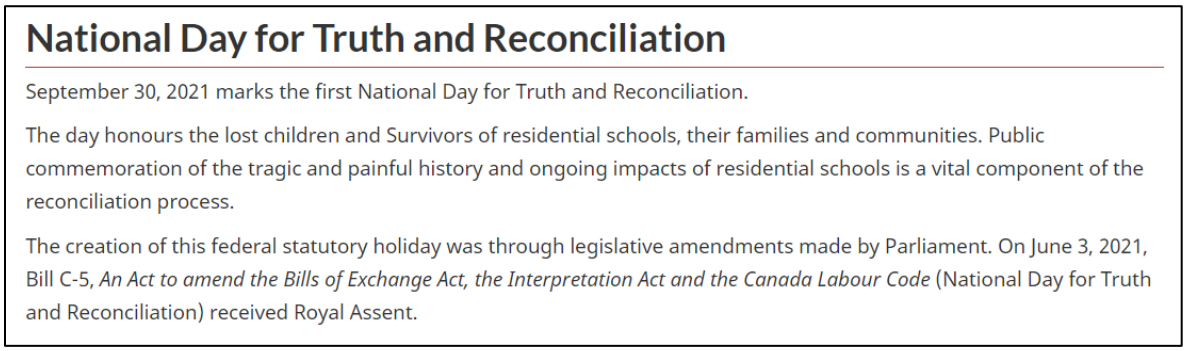
[3] https://www.rcaanc-cirnac.gc.ca/eng/1100100015644/1571589171655

people whole" that must be integral to the disclosure process, and 3) an assurance that whatever is disclosed becomes part of public history for all Canadians" (Nagy, 2014, p. 204). These revelations formed the substrate of the Royal Commission on Aboriginal Peoples (RCAP) launched in 1991 to examine the relationships between Indigenous and non-Indigenous peoples. Fontaine later rallied other survivors to launch multiple class action lawsuits resulting in 2007 in the largest class action settlement in national history, the Indian Residential Schools Settlement Agreement (Stanton, 2011). The settlement set aside five billion Canadian dollars for the compensation of victims and the establishment of a Truth and Reconciliation Commission (Marshall, 2013; Nagy, 2014; Stanton, 2011).

1.4.2.3 Reconciliation and resurgence

The Truth and Reconciliation Commission (TRC) was set up with the mandate to collect the stories of Indian Residential Schools survivors, on the premise of causality between truth-telling and social change (De Costa, 2017). Such causality is difficult to establish since there is no guarantee that recording stories of abuse will be sufficient to uproot the ways of doing and thinking that have permeated the settler-dominated social fabric over the centuries. However, the heteroglossia in the TRC process and its 94 final Calls to Action catalyzed national conversations about relationships between Indigenous and non-Indigenous people and opened broader spaces for expressions of reconciliation across all sectors of society, including through a National Day for Truth and Reconciliation since 2021, as shown on Plate 1-2 (De Costa, 2017; Storrie, 2015).

Plate 1-2. Government's description of the National Day for Truth and Reconciliation



National Day for Truth and Reconciliation

September 30, 2021 marks the first National Day for Truth and Reconciliation.

The day honours the lost children and Survivors of residential schools, their families and communities. Public commemoration of the tragic and painful history and ongoing impacts of residential schools is a vital component of the reconciliation process.

The creation of this federal statutory holiday was through legislative amendments made by Parliament. On June 3, 2021, Bill C-5, *An Act to amend the Bills of Exchange Act, the Interpretation Act and the Canada Labour Code* (National Day for Truth and Reconciliation) received Royal Assent.

Source: https://www.canada.ca/en/canadian-heritage/campaigns/national-day-truth-reconciliation.html

Reconciliation and resurgence stand as two major streams guiding and interpreting Indigenous-settler relationships in Canada (Asch et al., 2018). For the Truth and Reconciliation Commission, reconciliation is about establishing and maintaining a mutually respectful relationship between Indigenous and non-Indigenous people (Truth and Reconciliation Commission of Canada, 2015a). on the other hand, Asch et al. (2018) define resurgence as "a force of reclaiming and reconnecting with traditional territories by means of Indigenous ways of knowing and being". Resurgence is often used alongside self-determination and autonomy whenever "Indigenous peoples decide for themselves who the appropriate self in self-governance is and how self-governing institutions should be structured" (Cornell, 2006, p. 27). According to Green (2009, p. 42), self-determination is a human right that "implies a challenge to the sovereignty that settler states have appropriated from indigenous nations, even though self-determination does not require transformation to statehood." Resurgence and self-determination are recurrent ones in conversations about socio-economic development in Indigenous communities, including about their participation in the energy sector.

1.4.3 Bridging reconciliation and energy transition

In 2017, two years after the release of the TRC report and the Paris Agreement on Climate Change, the Liberal federal government launched a public consultation called Generation Energy, inviting Canadians to share their thoughts on the future of energy (Generation Energy Council, 2018). One of the conclusions pointed to the current energy transition as an opportunity for reconciliation and for "Indigenous Peoples and communities to take their place at the table and help drive the evolution of Canada's energy sector" (Generation Energy Council, 2018, p. 8).

Seeing this conclusion brought two big questions to my mind, including: Are settlers ready to see Indigenous communities at the decision table? Is renewable energy the new buffalo? At the core of the first question is the awareness that participation can be tokenistic, by bringing guests to the table though leaving them without any say on the menu. In contrast, Indigenous self-determination compels to address deep-seated and contentious issues of rights and control over lands and resources thereof. The second question causes to reminisce about the infamous accounts of US and Canadian settlers exterminating millions of buffalos in the Western prairies in the 19th century. The settlers' strategy was starving Indigenous populations to force them to surrender, as

“every buffalo dead is an Indian gone” (Phippen, 2016; Waziyatawin, 2012). With that in mind, it could be tempting to view renewable energy as the new buffalo, a new golden opportunity for Indigenous nations to regain self-reliance using the abundance of renewable energy resources on their traditional lands. However, bridging energy transition and reconciliation should not be a lopsided conversation where settlers get to decide who speaks and what is discussed. Listening to Indigenous actors in the energy transition, such as M’Chigeeng First Nation, is thus a necessary step to ensure that energy transition and justice go hand in hand.

1.5 Research context: The MERE project

The Mother Earth Renewable Energy, MERE, wind project is installed in the traditional territory of M’Chigeeng First Nation, one of the 634 First Nations recognized in Canada. This Anishinabek community, formerly known as West Bay, is the second largest on Manitoulin Island in Northern Ontario (see Figure 1-4) where it settled in the middle of the 19th century (M’Chigeeng First Nation, 2018). The community counts over 2,400 people, with about one-third of members on reserve and the other two-thirds living across Turtle Island (North America), mainly in Ontario.

The MERE project was selected as case study because of M’Chigeeng’s unique experience as sole owner, and operator. The MERE project is unique both for Ontario, where the Feed-in-Tariff approach prevented the development of community-led energy schemes (C. Walker & Baxter, 2017b) and for Canada, where very few Indigenous communities in Canada are full owners of renewable energy infrastructures (Hoicka et al., 2021). To some extent, the MERE project is a microcosm of the Canadian society seeking to navigate the two imperatives of energy transition and reconciliation, though the project planning started long before those terms became mainstream. By way of illustration, Figure 1-5 situates the MERE project of the provincial map while Plate 1-3 depicts the turbines through the eyes of a member of M'Chigeeng First Nation.

Figure 1-4. M'Chigeeng on the map of Manitoulin Island, Ontario, Canada (Jacklin et al., 2020, p. 3)

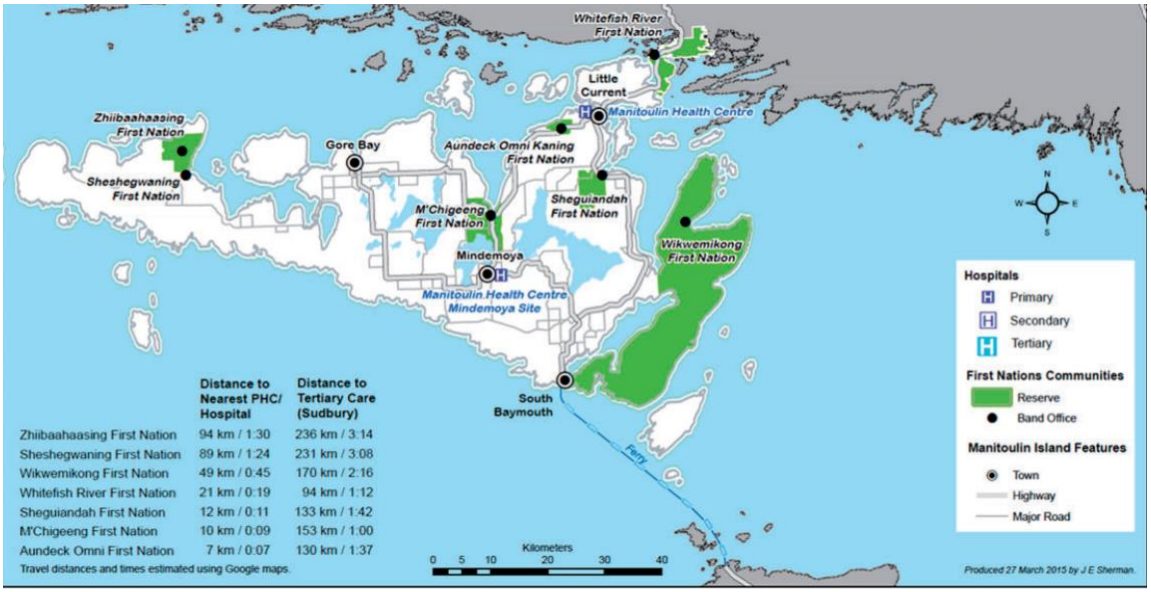
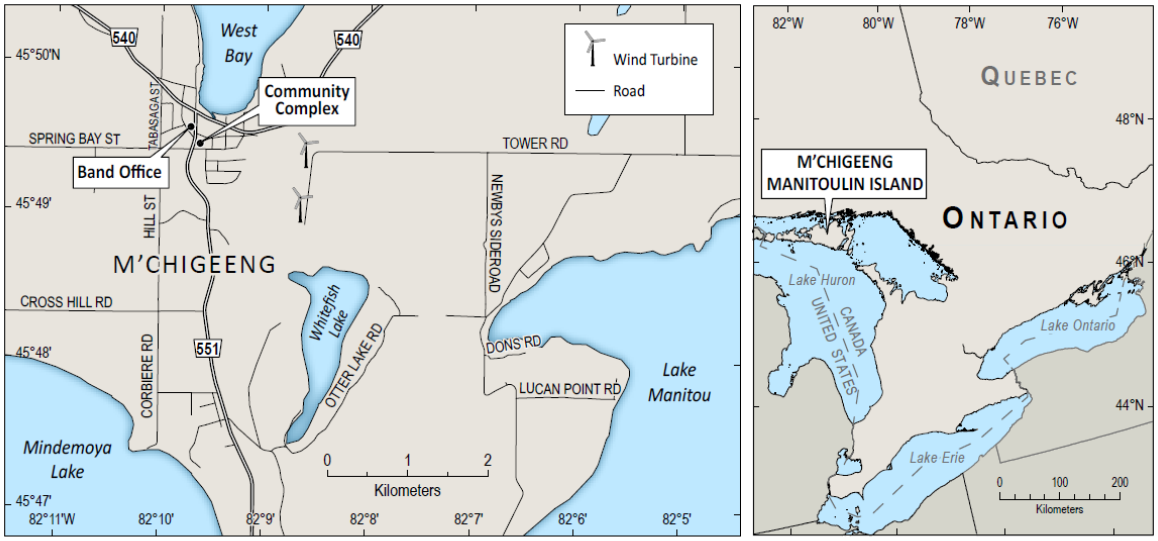
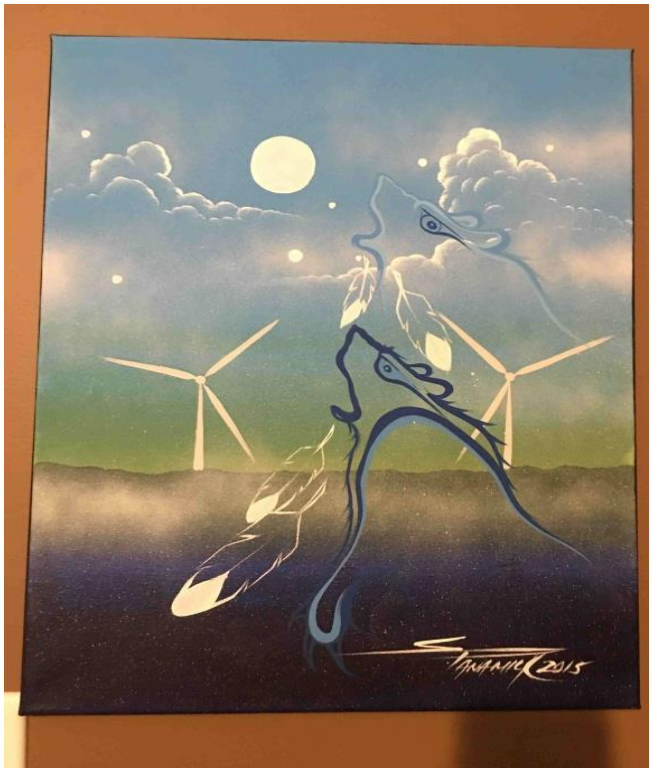


Figure 1-5. Map of M'Chigeeng First Nation and the MERE project



Produced by: Cartographic Section, Geography and Environment, Western University, 2021.
Base map source: Canada, National Topographic Data Base, downloaded Feb. 2021.

Plate 1-3. Painting of the MERE turbines by a member of M'Chigeeng First Nation (courtesy of Ms. Susan Hare)

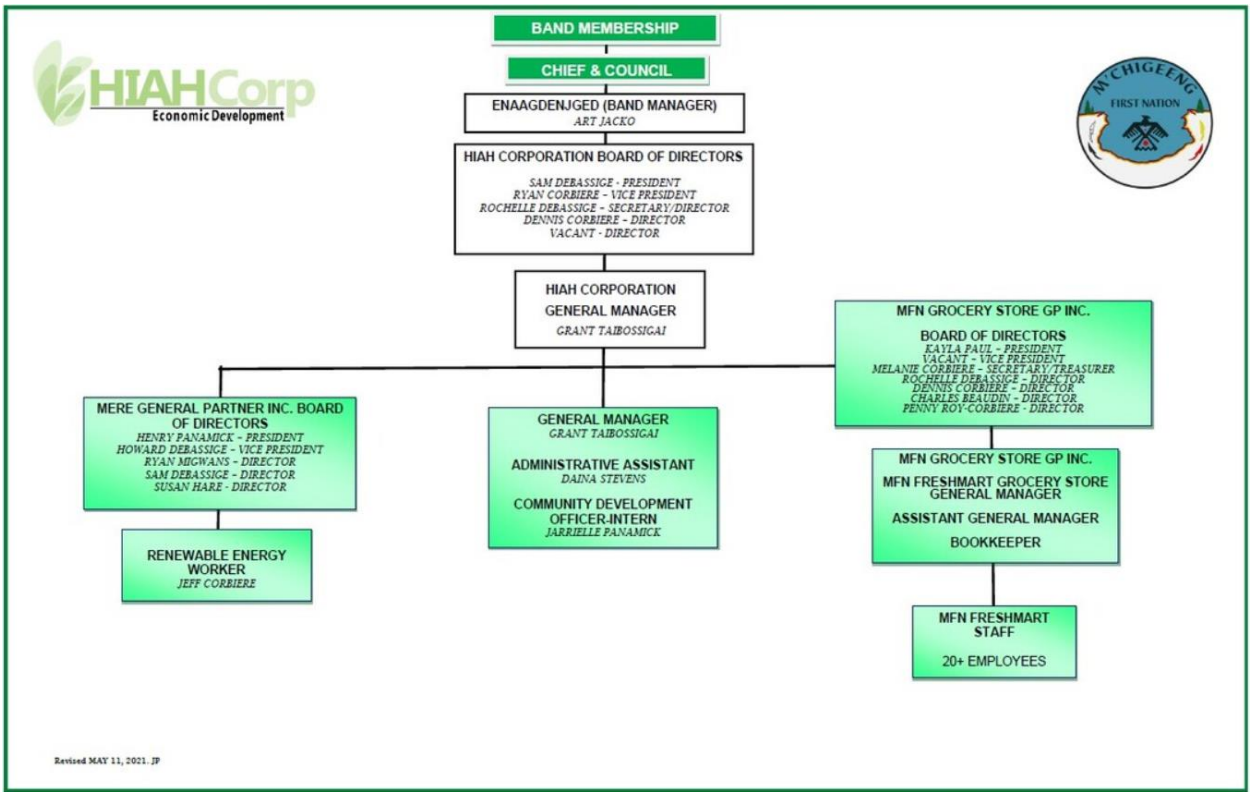


The construction of the 4-MW MERE project was completed in 2012. The project is the sole property of M'Chigeeng Chief and Council acting on behalf of the First Nation. They signed a 20-year contract (2012-2032) with Ontario Power Authority, motivated by the opportunity to generate additional revenues for the community (Kelly, 2013). As per Section 91(24) of the 1867 Constitution Act, the federal government's fiduciary duty is to provide First Nations with annual transfers to cover basic social needs such as education, housing, and health (Lachance & Rose, 2020; McFarlane & Schabus, 2017; Wright & White, 2012). However, these transfers are not only insufficient to cover the needs of growing reserve populations but also contribute to maintaining Band Councils in a relationship of dependency with the federal government (McFarlane & Schabus, 2017; Savic & Hoicka, 2021). To supplement meager federal allocations and escape federal paternalistic control, First Nations can generate their own-source revenues as municipal governments do when levying local taxes for example. First Nations have the option of levying property taxes on reserve or developing business opportunities to generate own-source revenues (Flanagan, 2019). The former option is used in a small number of First Nations, but the latter has become a common trend with many First Nations establishing band-owned economic

development corporations (Flanagan, 2019). HIAH Corporation is such an example, established by M'Chigeeng Chief and Council to manage development activities such as the MERE project (see Plate 1-4).

Compiling financial reports from 500 First Nations in 2015-16, Flanagan (2019, p. 39) found that First Nations' own-source revenues, OSR, "totalled more than half of government transfers", meaning that the additional revenues generated represent 50% of the sums received annually from the federal government. This shows the importance of those own source revenues for communities' coffers and explains why First Nations are eager to undertake land-based economic activities on their own terms. Among the most common business undertakings to generate own-source revenues are tourism ventures such as hospitality ventures (conference centres, hotels, etc.), recreational activities (camps, fishing sites, etc.), and natural resource development, including, increasingly, renewable energy projects like the MERE wind project.

Plate 1-4. Organigram of HIAH Corporation



Source: https://www.mchigeeng.ca/hiah-corp.html

The MERE Wind Project consists in two Enercon E-82 turbines (2 x 2 MW) built on 100 acres of land. At full capacity, the units can generate 10 GWh per year. With 4 MW, the MERE project is no technological feat, but a closer look reveals deep and complex dimensions. Though the turbines were built before the TRC report, its realization entwines the community's aspirations of socio-economic well-being with the complex imperatives of energy transition and reconciliation. As evoked in the 2011 news release below (Plate 1-5), the project was made possible by settler energy policies designed to address the economic and legal barriers faced by Indigenous communities.

Plate 1-5. Government news release about the MERE project

Government of Canada Announces Funding for Wind Farm at M'Chigeeng First Nation

News Release

Ottawa, Ontario (June 21, 2011) - The Honourable John Duncan, Minister of Aboriginal Affairs and Northern Development, and the Honourable Tony Clement, Minister for FedNor, announced today a Government of Canada investment of $980,000 to enable the M'Chigeeng First Nation to implement the first phase of its Mother Earth Renewable Energy (MERE) Wind Farm Project.

Of the total, Aboriginal Affairs and Northern Development Canada will provide $500,000 to support the construction and installation phase of the project. FedNor funding of $480,000 will support engineering and project management costs associated with the installation of two wind turbines. The M'Chigeeng First Nation will contribute in excess of $3,000,000 to complete the project.

"Today's announcement demonstrates our Government's ongoing commitment to supporting First Nation communities across Canada," said Minister Duncan. "This clean energy initiative will encourage economic growth, create local jobs, and support renewable energy."

"Investing in strategic initiatives that encourage business development is a key priority of the Government of Canada," said Minister Clement. "This initiative will allow the M'Chigeeng First Nation to be among the first Aboriginal communities in Ontario to embrace green power generation as a way to strengthen the local economy and position the community for long-term growth and prosperity."

Source: https://www.canada.ca/en/news/archive/2011/06/government-canada-announces-funding-wind-farm-chigeeng-first-nation.html

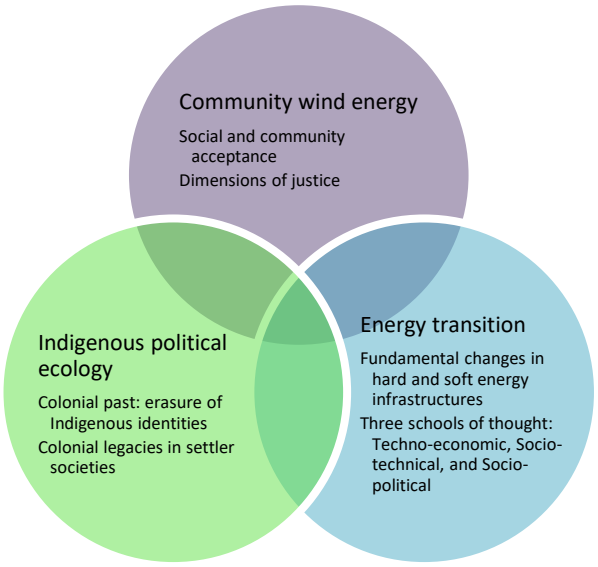
The bedrock of this dissertation is the unpacking of M'Chigeeng members' perceptions of the MERE project and their connections with the broader socio-political context in Canada where Indigenous people aspire to heal and regain their autonomy and the settler state navigates the reconciliation journey. The next chapter presents the theoretical foundations necessary to undertake this contextual unpacking.

Chapter 2

2 Literature review

2.1 Introduction

Figure 2-1. Three main strands of literature covered in the dissertation



Examining the MERE wind project in M'Chigeeng First Nation invites to engage with a wide range of intellectual positions and tools, which I found in the literatures on community wind energy, energy transitions, and Indigenous political ecology, as illustrated in Figure 2-1. The topic of community wind energy has been receiving a lot of political and scholarly attention since the late 1980s, as wind turbines became more visible in rural landscapes and communities started objecting to their presence (Bosley & Bosley, 1988; Wolsink, 1987). By gaining maturity and decreasing in cost, wind turbines have become central features of the current energy transition and their exponential deployment is linked to achieving a full decarbonization of energy systems by 2050, objective called net-zero (IEA, 2021b). It is already evident that, similar to the previous energy transition from wood to fossil fuels, the current low-carbon transition has material consequences for institutions and communities, including Indigenous peoples (Bridge et al., 2018). However, their experiences are insufficiently accounted for in mainstream energy research. Hence the importance of engaging with Indigenous political ecology, which examines conflicts

around natural resources considering the historic and contemporary circumstances faced by Indigenous communities (Middleton, 2015). Towards the end of this chapter, a reflection on power further justifies the splicing of the above bodies of literature and provides a springboard to understanding the subsequent chapters.

2.2 Community wind energy

> *Civilization grew up with wind power. It was used to move boats along the Nile River 5,000 years ago and to pump water in China several centuries before the beginning of the Christian era. For better or for worse, European exploration could not have occurred without it. We are familiar with wind power, so it holds none of the mystery of fission or fusion or even standard fossil-fueled power generation. Its total environmental impacts are approximated by its landscape expression. Most important, its physical presence reminds us that our supply of electricity has environmental costs, regardless of whether they are nearby or too distant or camouflaged to see.*
> *(Pasqualetti, 2000, p. 392)*

The literature on community wind energy abounds with in-depth case studies and quantitative analyses about the social and spatial costs of wind turbines that are among the most mature and widely deployed renewable energy technologies (Rand & Hoen, 2017). The analysis of drivers of communities' responses occupies a considerable space in the community wind energy scholarship and is essential to understand how and why wind projects become fraught with conflicts and contestations. Further, it helps to orient future turbine installations and anticipate public opposition that can derail development plans.

The imperative of decarbonization requires efforts on both the demand and supply of energy. On the demand side, energy-efficiency and energy saving measures are hailed as some sensible and responsible actions likely to address the energy-heavy consumerism consonant with capitalist societies (Hedenqvist et al., 2021). On the supply side, there is a global consensus on the opportunity of producing renewable energy along centralized and decentralized models (Bridge et al., 2013; Saidur et al., 2010). Along the supply-demand continuum, citizens are called to supplement state and industry actions by adopting energy efficient measures, supporting the production of renewable energy through contracts with green suppliers for residential uses, hosting renewable energy facilities in their municipalities, and even investing in production

schemes (Bomberg & Mcewen, 2012; G. Walker et al., 2007). Citizen engagement in energy production is often cast as an opportunity for society to follow a “soft path” contrasting with the “hard path” of traditional centralized energy infrastructures (Hoffman & High-Pippert, 2005). On that soft path, decentralized renewable energy sources are deemed “more compatible than centralized technologies with social equity, freedom and cultural pluralism” (Winner, 1980, p. 121). As renewable energy technologies mature, models of citizen-led energy production or energy communities gain increasing appeal while, at the same time, raising new challenges (Hoffman & High-Pippert, 2005).

2.2.1 Meaning of community energy

Since the early 2000s, policy-makers have been extolling community renewable energy (CRE) or Local Energy Communities (LECs) as virtuous avenues to advance the decarbonization of the electricity sector, lower the pressure on public coffers, and promote local development (Barroco Fontes Cunha et al., 2021; G. Walker et al., 2007). A preamble about community development is useful to unpack this turn in the energy sector and better understand community renewable energy. According to a well-established community development theory, solidarity and agency are the defining characteristics of community development (Bhattacharyya, 1995). Solidarity, embedded in the very concept of community, speaks to “a shared identity and a code of conduct, deep enough that a rupture in them entails effective consequences for the members” whereas agency refers to the “capacity of a people to order their world, to create, reproduce, change, and live according to their own meaning systems” (Bhattacharyya, 1995, p. 61). Solidarity and agency are also important concepts in community renewable energy.

Academics seem to agree that a community renewable energy (CRE) project is a form of community development project likely to reconfigure energy value chains and facilitate the participation of new and often small corporate actors into the energy system, while generating socio-economic benefits (Barroco Fontes Cunha et al., 2021; Hoffman & High-Pippert, 2005). CRE is thus associated with the hope of restoring social and political agency to the frontline communities hosting renewable energy technologies. Among scholars, there remains though some challenges in defining the term community. Gross (2007) views a community as a group of people who, joined by choice or circumstances, live or act together. Bauwens and Devine-Wright (2018)

distinguish between community of place, tied to a geographical space, and community as network (also called community of interest) formed by social relationships. Baxter et al. (2020) note that the terms ‘community-based’, ‘community-led’, and ‘community-owned’ are sometimes loosely and interchangeably used. When those communities are Indigenous, the hopes for restoration and the level of community agency become singularly important because of their unique social and historical context, as explained about colonial dispossession in the previous chapter.

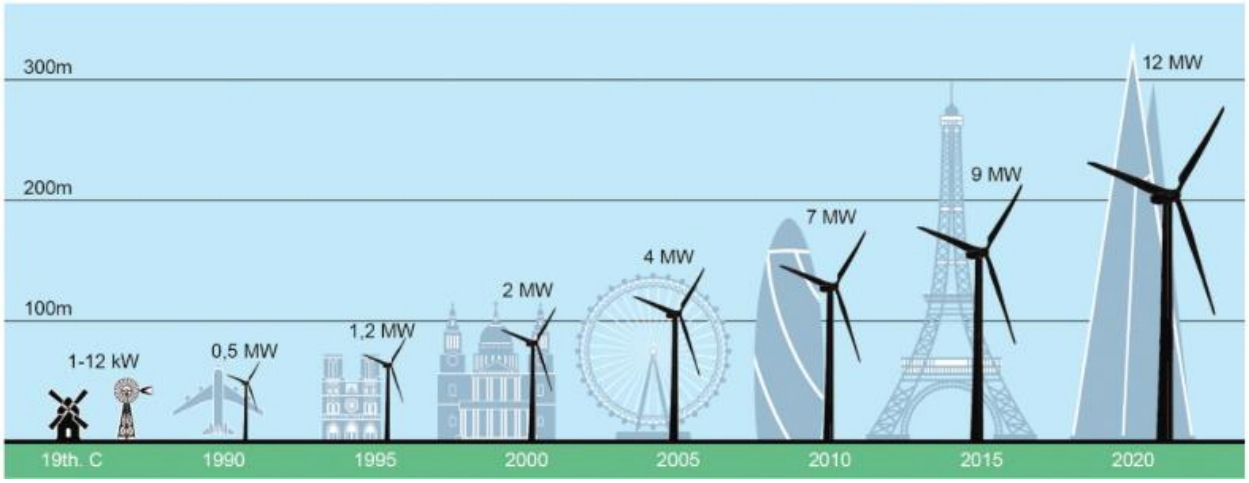
Alongside the varied meanings of the term community, there is a spectrum of CRE models (Bolinger, 2001; C. Macdonald et al., 2017). CRE can be territory-based (in a community of space or locality), when linked to physical boundaries, or territory-free (in the case of a community of interest) if the entities involved span national borders (Bauwens & Devine-Wright, 2018; Bolinger, 2001; Hammami et al., 2016; Maruyama et al., 2007). A community may decide to invest in a cooperative or through a special investment vehicle to produce electricity for local or distant use (Bolinger, 2001; Bomberg & Mcewen, 2012). In the remainder of this dissertation, I will use the term community to refer to a community of space or place as per Fischhendler’s (2021, p. 52) definition: “an energy community assumes a form of collective communitarian principles, often presented in the form of shared ownership, participation, and shared interest in renewable energy initiatives”. On that basis, a community energy scheme differs from a commercial developer-led model in that the community leads, controls and/or owns the energy infrastructure within its geographical boundaries.

2.2.2 Understanding social and community acceptance

There are many studies on the social alchemy between people and wind turbines in actual or prospective host communities. A particular manifestation of that alchemy is that, while successive surveys reveal citizens’ overwhelming preference for renewable energy over nuclear and fossil fuels, countless predictions of fast-tracked deployment of wind turbines fail and turbines installations spur unexpected controversies (Rand & Hoen, 2017; Wolsink, 2000). Maybe not unexpectedly. Already, in the early 1980s, Deudney and Flavin (1983, p. 303) had envisioned that the emergence of decentralized forms of energy production would result in a new societal arrangement and possibly tensions. As technology progressed from fringe experiment to mainstream, “the low hanging fruit wind sites (those that have good wind resources and are close

to loads and transmission, yet far from communities)" (Rand & Hoen, 2017, p. 135) were soon identified and developed. Unlike conventional fossil fuel or nuclear energy that involve below-ground resource extraction, decentralized renewable energy often brings energy production above ground, in salient vicinity of consumers abruptly awakened to think more closely about the power behind their modern appliances and amenities (Pasqualetti, 2000; Wüstenhagen, Wolsink, & Bürer, 2007). Though other renewable energy technologies also face controversies, wind turbines tend to induce the strongest feelings and reactions, due to their visible and audible features (Gipe, 1993), the landscapes they modify (Sherren et al., 2019), and also familiarity or accumulation. Too many, too fast, and too big is likely to cause opposition or resistance. Plate 2-1 gives an idea of the visible impact of wind turbines over time.

Plate 2-1. The Evolution of Wind Turbines by year, size and production capacity (Johansen, 2021, p. 6)



The broad social acceptance field examines facilities as diverse as landfills, hospitals, industrial plants, or even monuments as the Eiffel Tower (Petrova, 2016). Acceptance may be understood as a positive response observed in a social unit in favor of a technology or infrastructure (Upham et al., 2015). The term acceptance is often interchangeably used to describe both support, an active positive stance, and mere acceptance, that is a more passive, not antagonistic attitude (Upham et al., 2015). Fournis and Fortin (2017) contend that acceptance is nested in the broader concept of acceptability, understood as a social contract about energy, a dynamic decision-making process informed by socio-political struggles, negotiation, and eventually consensus. At the end of this

complex acceptability process lies acceptance or lack thereof, i.e., unacceptance (Fournis & Fortin, 2017).

In the modern age reenactment of Miguel de Cervantes' Don Quixote, adorning windmills with low-carbon, green, and clean qualifiers does not always suffice to generate strong public support. Staunch turbines supporters sometimes sarcastically refer to their opponents as suffering from the Not-In-My-Backyard (NIMBY) syndrome, as if those displaying such a turf-protection reflex were in fact unwell, suffering from some health disorder preventing them from seeing the importance of cooperating for the public good (Wolsink, 2000). Though most social acceptance scholars have discarded the NIMBY explanation (Rand & Hoen, 2017), similar acronyms gradually infiltrated the social acceptance field, such as YIMBY (Yes-In-My-Backyard) or PIMBY (Please in My Backyard), used about communities proud to embrace energy goals (Brinkman & Hirsh, 2017; Hager & Haddad, 2015). Other acronyms have been coined to illustrate the nuanced reactions to proposed energy developments, including LULU (Locally Unwanted Land Use), BANANA (Build Absolutely Nothing Anywhere Near Anything), NOPE (Not on Planet Earth), and NIABY (Not In Anybody's Backyard) (Hager & Haddad, 2015). Between outright opposition and total support are multi-faceted responses and response drivers that scholars are still trying to elucidate, including psychological attachment to places.

Place attachment is evoked in the community wind energy literature to understand local responses to wind turbines (Fast & Mabee, 2015; Fischhendler et al., 2021). Place-based explanations go beyond the mere concerns for landscape aesthetics to focus on the emotional attachment to inhabited spaces (Fast & Mabee, 2015) and to the unique identities borne by individuals and collectives as a result of that attachment (Devine-Wright & Howes, 2010). Scholars argue that the social identities formed around certain spaces and landscapes ought to be decrypted and embedded in wind energy planning (Pasqualetti, 2011). Connected to place-attachment is place-making, an evolutionary process "constituted by the socio-spatial relationships that link individuals together through a common place-frame" (Pierce et al., 2011, p. 54). Fast (2015) suggests that, in some cases, wind energy development could contribute to place-making by forging a new type of bond between members of a host community as the landscape is being recomposed by turbines. Warren and McFadyen (2010) illustrate such place-making in a study on Gigha Island, Scotland, where a community-owned wind farm became a symbol of socio-

economic renaissance, boosting the community's pride and encouraging migrants to return to their home island. While the concepts of place attachment and place-making bring up psychological dimensions in the social acceptance field, they are mainly discussed through Eurocentric lenses, leaving aside non-Western and racialized contexts. Likewise, little attention is paid to the mediating aspect of religious and spiritual factors in social acceptance. Examining responses to commercial wind turbines installed in two religious Jewish communities in northern Israel, Fischhendler et al. (2021) present religion as a pacifying factor that community residents connect to God-delegated responsibility of environmental stewardship. Spirituality, ceremonies, and land stewardship are also essential aspects of social life in Indigenous communities, aspects tied to particular places and traditional territories (Taiaiake Alfred & Corntassel, 2005).

2.2.3 Conceptualizations of community acceptance of wind projects

Wustenhagen et al. (2007) authored a widely cited conceptualization of the social acceptance of energy technologies: the triangle of social acceptance. It features a socio-political dimension pertaining to policymaking, a market-related angle related to consumers, investors, and developers, and a community dimension tied to the perceptions and experience of the host community (see Figure 2-2). Due to recurring controversies and hostile reactions of communities unwilling to host projects, analyses of community acceptance have moved to the forefront of the social acceptance literature, with several authors proposing additional conceptualizations (Fischhendler et al., 2021; Rand & Hoen, 2017).

Seeking to highlight drivers of acceptance, Petrova (2016) proposes the VESPA framework including Visual, Environmental, Socioeconomic, and Procedural Aspects of acceptance in communities hosting wind turbines. In their review of North American research, that the authors acknowledge being dominated by studies about Canada and the United States, Rand and Hoen (2017) identify six overarching themes of community's acceptance: socioeconomic aspects, sound annoyance and health aspects, visual perceptions, environmental concerns, process-related aspects, and residents' proximity to the turbines. Based on studies in disadvantaged Indigenous communities in Mexico, Huesca-Perez et al. (2016) present a similar classification but in four categories, namely environmental, economic, cultural, and stakeholder involvement, considering culture as a distinct and important element to include in analyses.

Figure 2-2. Triangle of social acceptance of renewable energy innovation (Wüstenhagen, Wolsink, & Bürer, 2007, p. 2684)

Note: Emphasis (circle) added by author

Amidst various conceptualizations, a simple categorization remains very commonly cited, that is the process and outcome framework, in Figure 2-3, initially presented by Walker and Devine-Wright (2008) as an attempt to broadly (not in the normative way) differentiate community energy from centralized energy developments. Simply put, the outcome dimension refers to the spatial and social distribution of the project benefits and impacts while the process dimension is concerned with people's involvement and participation. Walker and Devine-Wright (2008, p. 498) suggest that an ideal community project (model A, B, or C in the top-right quadrant) is "entirely driven and carried through by a group of local people and which brings collective benefits to the local community (however that might be defined)—a project that is both by and for local people." The framework has often been used over the years to analyze communities' attitudes toward energy technologies (Creamer et al., 2019). Expanding the process-outcome dimensions, Baxter and colleagues (2020) proposed a three-dimensional framework, arguing that community acceptance is likely to increase with proximity to the turbine site, i.e., when benefits are collective rather than private, process is participatory, not closed, and investors are local rather than global (see Figure 2-4). Most wind energy scholars recognize that process and outcome are conjoined dimensions of community acceptance: "it is not only that outcomes are dependent upon the nature of the process through which the project is developed and managed, but the processes of

collaboration and negotiation that occur at the local level can themselves be seen as an outcome" (Creamer et al., 2019, p. 3). Further, a "process perceived as "fair" can lead to greater tolerance of the outcome, even if it does not fully satisfy all stakeholders" (Rand & Hoen, 2017, p. 142). These concepts of process and outcome implant in the community acceptance literature ideas of fairness and justice that travelled from Aristotle to modern philosophers (Rawls, 2001; Sen, 2008).

Figure 2-3. Process and outcome dimensions of a community renewable energy project (G. Walker & Devine-Wright, 2008, p. 498)

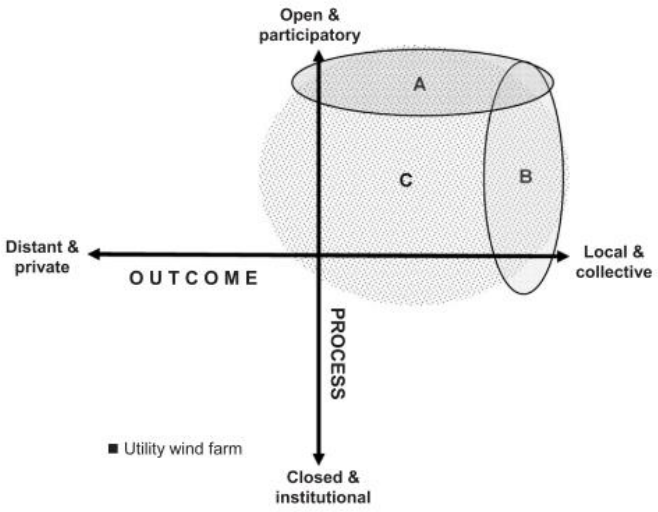
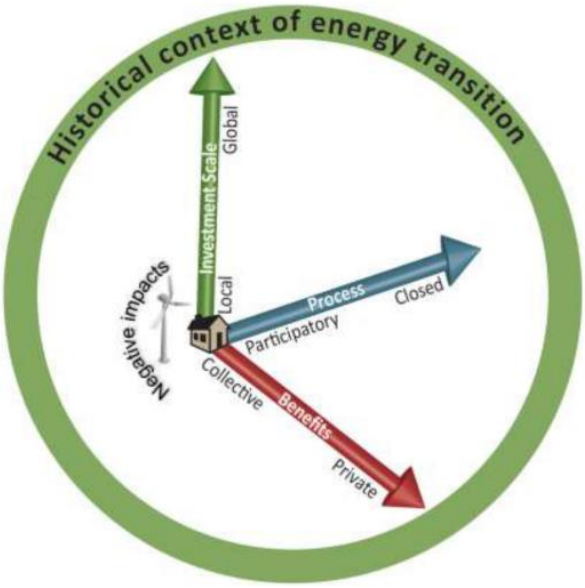


Figure 2-4. Reconceptualization of key dimensions of local community wind energy acceptance: Benefits, process and investment scale (Baxter et al., 2020, p. 9)



2.2.4 Linking community acceptance and justice

Justice, also understood as fairness, aims to "provide an acceptable basis for democratic institutions and to address the claims of liberty and equality" (Rawls, 2001, p. 5). Because justice is essential for individuals and society to thrive, perceptions of injustice tend to spur conflicts and damage social relationships (Gross, 2007). According to Sen (2009), justice and freedom are attached to both opportunity, the possibility to reach a desired outcome, and process, that is the way to reach such outcome. Process dimensions are encapsulated in the term procedural justice.

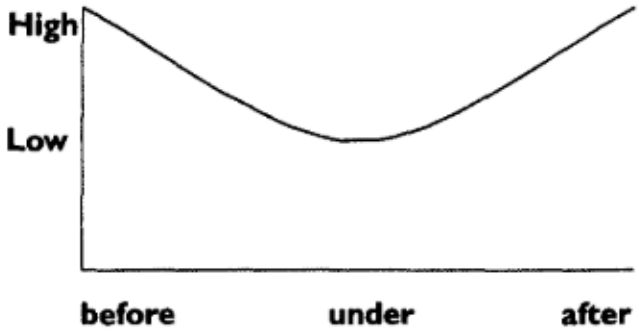
2.2.4.1 Procedural justice

A community project might be tacitly expected to be inherently fair because the development process is assumed to be led, partially or completely, by the community. However, Walker and Baxter (2017b), exploring the nuances of procedural justice, warn against romanticizing community wind energy projects. As explained earlier, the term community is fraught with ambiguity. Communities are neither homogeneous nor always close-knit and often hold in their midst various cliques and decision-making circles that can hold considerable power and obscure development processes (Fischhendler et al., 2021). Oftentimes, if community residents feel that only a selected few in the community collude to discuss and plan an energy project, tensions may rise and trust in the process may quickly erode (Slovic et al., 2004). Authors also note that processes sometimes substitute quality for quantity when, for example, participation procedures focus on having the broadest picture possible of citizens' views without granting residents the opportunity to act on their choices (Gregory, 2017). Often, consultations labelled inclusive suffer from asymmetry of information, leading to deficit of information or adversarial interactions, antagonization, and community polarization (Gregory, 2017). By all accounts, "consult-consider-modify-proceed" (Rand & Hoen, 2017, p. 142) types of processes, whereby local residents can voice their opinions and see them reflected in decisions, are more likely to gain their favor.

Such processes align with Arnstein's (1969) famous participation model that starts with information and evolves through various levels of consultation all the way to citizen control. Whilst absolute control is utopic, substantial control allows citizens to gain most decision-making authority (Arnstein, 1969). Walker and Baxter (2017b, p. 168) argue that an essential aspect in procedural justice is that the community holds "the ability to affect outcomes". Communities who

find within themselves the abilities to engage in productive conversations about different courses of action and their potential impacts are more likely to reach their desired outcomes with overall acceptance (Gross, 2007). In marginalized communities, it is essential to think deeper about participatory processes to ensure that these processes are not hijacked. Arnstein (1969) observes that information meetings can be one-way communication venues that obfuscate larger conversations about alternatives to the envisioned process (Bidwell, 2016). Likewise, excessive technical or legal jargon can intimidate and further exclude some residents due to historical inequalities resulting for example in low education or literacy levels (Arnstein, 1969). As stated by Arnstein (1969, p. 216), "citizen participation is a categorical term for citizen power. It is 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". Wolsink (2007, p. 1191) affirms that, "communication always misses its targets when it does not address the real concerns of the people to whom the message is directed." One could argue that communication that fails to recognize and adapt evolving needs and concerns over time would equally miss its purpose. A diagram in U (or V)-shape (see Figure 2-5) is often used to describe the community response over the course of a wind project development, suggesting that levels of turbines acceptance that are often high before construction, tend to drop during construction to increase again once the project is in operation (Devine-Wright, 2005; Wolsink, 2007). Unfortunately, the evolution of participation and consultation over time remains an under researched aspect in the community wind energy literature.

Figure 2-5. U-Shape diagram of acceptance in a local area before, under, and after construction of wind power plants (Krohn & Damborg, 1999, p. 958), from Gipe 1995



2.2.4.2 Distributional justice

Next to procedural justice, the issue of distribution of benefits is front and center in the community wind energy literature. In their typology of benefits, Macdonald and colleagues (2017) include financial payments, in-kind contributions, provision of community services, economic benefits through employment or tax revenues, as well as various forms of engagement opportunities along the project development process. In general, whilst collective benefits are well received, contributions to individuals tend to be sensitive issues because they can be perceived as bribes (Baxter et al., 2013; C. Macdonald et al., 2017; Songsore et al., 2017). Framing benefits as compensation is also challenging because it implies that there is some type of harm to be compensated for, or some pain to be numbed, which may exacerbate intra-community conflicts (Fischhendler et al., 2021; Shepherd et al., 2011). Again, process and outcome go hand in hand since the process followed to discuss benefits does influence the perception thereof (C. Walker & Baxter, 2017a).

In the same vein, Wilson (1995) articulates how the type of proposed benefits may influence residents' participation in the process: the less residents value those benefits, the less inclined they are to participate in decision-making. Wilson (1995) states that material benefits are often better received than financial ones and more valued by residents. Wilson's classification of the distribution and concentration of costs (burdens) and benefits resulting from project implementation applies to the policy sphere but is also relevant for community energy developments. When both burdens and benefits are distributed over many people, decisions are generally better accepted by the community. Interventions that lead to benefits concentrated on a given group and distributed costs may also gain support especially when the direct beneficiaries have a special status in the community (seniors or disabled people for example), as empathy can mobilize support for the decision. When benefits are widely distributed but burdens are concentrated on an identifiable group, the group bearing the burden may, depending on their leverage power, mobilize to reduce their burden or outrightly alter the decision. This was the case of Ontario's wind development where rural communities in the Southwest, facing the cumulative effects of rapidly spreading wind turbines, used their social status and resources to mobilize political forces and stop the wind sprawl. Situations of benefits concentrated on one group with burdens concentrated on another group are obvious recipes for tensions or overt conflicts. In

settler countries, economic achievements and energy developments have long occurred at the expense of Indigenous communities who were left to bear the burden of land and resource dispossession while settlers enjoyed the amenities of a First World life (Coulthard, 2010b).

2.2.4.3 What else matters for Indigenous communities?

The low-carbon transition is not immune from colonial malpractices. There are numerous studies of Indigenous communities enduring direct and indirect dispossession from renewable energy ventures. Describing disputes over wind energy developments in the traditional lands of the Saami people in Sweden as instances of internal colonisation, Lawrence (2014, p. 1037) states that "contestations over wind power developments cut to the heart of Indigenous claims to self-determination and resource sovereignty" as the Saami communities have a marginal voice in the development process. Similarly, the Oaxaca region in Mexico, rich in wind resources and home to a large Indigenous population, is the site of recurring violations of procedural and distributive justice by private developers of wind projects (Dunlap, 2018; Huesca-Pérez et al., 2016).

Alternative accounts are emerging around the world, showing Indigenous leadership and engagement in renewable energy. Lai (2019) describes the community green energy initiave (small hydro and solar PV) led by the Taromak tribe in Taiwan, noting that it "takes place in a community where struggles for tribal autonomy have been of primary concern, and local actors have stressed the need to connect their indigenous identity to the project". Lai (2019) situates that energy initiative as part of the community's quest for cultural revitalization and tribal autonomy, predicated on reconnection to and stewardship of traditional lands. In New Zealand, Maori Indigenous organizations have come to own (fully or partially) 7.6% of local and community energy, driven by aspirations self-determination, community resilience, and sound guardianship of natural resources (Berka et al., 2020). In Canada, the combination of colonial legacies (Rodman, 2013) and growing Indigenous participation in the renewable energy sector (Krupa, 2012a; A. A. Smith & Scott, 2021) compels to extend the analysis of community energy beyond Western notions of procedural and distributional justice and attend to factors like recognition and restorative justice.

2.2.4.4 Recognition and restorative justice

Recognition and restorative justice, commonly discussed in environmental justice debates, are increasingly discussed in the context of energy developments. Recognition justice refers to the aspiration to equitable representation and equity across social, racial, ethnic, gender, cultural, and religious lines (Heffron & McCauley, 2017; Salter et al., 2018). Restorative justice, borrowed from the field of criminal justice, aims to repair past harm, within or without the legal system, when people's rights to safe living conditions have been infringed upon (Heffron, 2021). Recognition and restorative justice have unique relevance for historically marginalized communities, including Indigenous communities, where many settler-led energy projects have had cumulative negative impacts over people and lands (Bacchiocchi et al., 2022; Savic & Hoicka, 2021). However, some Indigenous scholars aver that recognition justice bears the risk of reproducing colonial configurations by subjecting Indigenous people to settlers' good will and intentions (Coulthard, 2014). Further, Corntassel (2012, p. 96) states that recognition led by a settler state "will not lead to a sustainable self-determination process that restores and regenerates Indigenous nations." Corntassel (2012) is careful to clarify that the idea of restoration does not concern solely Indigenous people living on reserves nor should it rivet Indigenous people in monolithic lifestyles on the land. To that effect, he asks: "how have Indigenous peoples initiated processes of restoration and regeneration on their own terms?" (Corntassel, 2012, p. 97). One response could be found in the description made by Fitzgerald (2018) about how several Indigenous communities in Canada use renewable energy to initiate their local restoration processes. In British Columbia, the Kanaka Bar Indian Band, part of the Nlaka'pamux Nation, established itself as a strong electricity producer, initiating the development of a 49 MW hydro project to "restore community pride and self-esteem, and develop a project that would benefit the entire community for generations to come" (Fitzgerald, 2018, p. 79).

As stated by Alfred and Corntassel (2005, p. 613), "land is Life – our people must reconnect with the terrain and geography of their Indigenous heritage if …they are to draw strength and sustenance that is independent of colonial power, and which is regenerative of an authentic, autonomous, Indigenous existence". Restorative justice, because it looks back to past harm and forward to rectification and solutions, thus connects to what Berka and Creamer (Berka & Creamer, 2018) refer to as the regenerative potential of community renewable energy projects,

especially community-owned projects, that can boost local economic power in places affected by economic downfall. Regeneration also connects to the notion of Indigenous resurgence, introduced in the previous chapter, and discussed later in Section 2.4 on Indigenous political ecology.

There is great potential to improve the understanding of community acceptance of renewable energy projects by using the lens of restorative justice, especially when projects are implemented in racialized or Indigenous communities whose experiences remain marginal in the social acceptance literature. The next section highlights that unfortunately, equity and justice issues, especially as they relate to Indigenous contexts, also remain fringe questions in the energy transition scholarship (Bidwell, 2016).

2.3 Energy transitions

Community renewable energy is a feature of the current energy transition that makes room for decentralized energy production and citizen-led initiatives. Hence, the concepts of justice examined in the previous section are also inherently bound to energy transitions and become particularly important, given the scale, space, and pace involved in these transitions. Aspects of justice are also important given Canada's stated ambition to accelerate the low-carbon transition while addressing relationships with Indigenous people. In Canada as across the world, energy systems are undergoing fundamental transformations having direct impacts on historically marginalized communities, who are often the first ones to bear the costs of environmental change and the last to reap the benefits. The extensive body of work examining those transformations, the energy transition literature, produces a large array of theoretical arguments and tools to understand past transitions and influence current trends, as described in the next sections. However, few of these arguments and tools account for social and historic aspects like environmental racism and colonial legacies.

An energy transition is defined as a fundamental "change in the state of an energy system as opposed to a change in an individual energy technology or fuel source" (Grubler et al., 2016, p. 18). Studies on energy transitions occupy a dominant place in the broad transition literature, briefly introduced hereafter. The concept of transitions refers to generally protracted changes that involve multiple actors and result in a fundamental reorganization of the technical and social

structures of a given system, e.g., food, transportation, energy, etc. (Markard et al., 2012). One of the main thrusts of the transition scholarship, in its various articulations, is its system perspective on societal challenges. The term transition is often used to refer to sustainability transitions, low-carbon transitions, or energy transitions, concepts that are closely connected yet not identical (Cherp et al., 2018). Sustainability transitions promote attention to, and adoption of, more sustainable patterns of production and consumption whereas low-carbon transitions focus on reducing the carbon intensity, i.e., the quantity of GHG emitted per unit of production, of economic activities. In that, sustainability and low-carbon transitions are purposive transitions, because they emanate from a (lofty) objective and are steered by public institutions (Kern & Markard, 2016). While energy transitions may aim for sustainability or reduction of carbon intensity, they are not strictly defined by the purpose or normative orientation, but rather by the extent of the transformation occurring in the energy system. For instance, the fossil fuel era is the result of successive energy transitions (from wood to coal, then from coal to oil) driven by technological opportunities and resource availability, rather than ecological motives. In contrast, the current energy transition is fueled by the overlapping concerns to reduce GHG emissions and use natural resources in a more sustainable way (Grubler, 2012; Kern & Markard, 2016).

The rich body of energy transition research spans several disciplines, from economics and innovation studies to sociology and political ecology, and offers a large set of propositions describing and prescribing transition pathways, stemming from the various epistemological traditions. Loorbach et al. (2017) categorize these propositions into three main types: the socio-technical, the socio-institutional, and socio-ecological approaches. Cherp et al. (2018) propose a similar classification in three main schools of thought, namely the techno-economic, socio-technical, and socio-political schools. This latter classification presents a meta-theoretical structure, more representative of the larger body of transition studies and suitable for this research. I use this latter classification here to describe the main tenets of each school of thought as they help situate community energy schemes into the broader context of societal transformation, context essential to answer the research questions (see Table 1-1).

2.3.1 The techno-economic school

With theoretical roots in neoclassical economics, economic history, Earth science, and engineering, the techno-economic school produced the earliest energy analyses in the 1960s and 1970s, proposing quantitative and macro-level analyses and projections about energy flows, conversion processes, and markets, or seeking to elucidate drivers of past transitions (Boudet, 2019; Cherp et al., 2018; Grubler, 2012). The appeal for such techno-economic analyses stems mainly from the availability of models that represent the coupling of energy and economy and allow predictions of market and societal behaviors (Cherp et al., 2018). One of the core assumptions of techno-economic models is that people and corporations make rational decisions based on logical evidence, which is not always the case (Costanza, 1996; Geels et al., 2017). By overlooking immaterial factors such as values of policy-makers, individual preferences, complex human behavior and emotions, and social norms, techno-economic analyses often fail to accurately predict social responses to, and garner public support for their recommendations (Geels et al., 2017). This proved particularly true with the expansion of wind energy and lack of anticipation of public opposition (Cherp et al., 2018; Lee et al., 1989). Acknowledging the limitations of the techno-economic perspective, some scholars started developing alternative analyses of transitions, blending insights from economics, technology studies, psychology, and sociology.

2.3.2 The socio-technical school

Historically tied to the Dutch academe, dubbed the Dutch School of transition (Grubler, 2012), the socio-technical perspective on energy transitions is grounded in the interest in technology diffusion and its connection with society. Such interest, that had already moved sociologists early in the 20th century, later united various scholars from sociology, history of technology, innovation studies, and evolutionary economics, moved by growing ecological concerns in Europe. Cherp and colleagues (2018) explain that, “in contrast to the techno-economic perspective, where technology is simply a method of extracting, converting or using energy by means of particular equipment or infrastructure, the socio-technical perspective has a more complex and nuanced view of technology as a social phenomenon, i.e. knowledge and practices embedded in infrastructure and other technical artefacts, shared by human actors, and circulating in social networks, collectively known as technological or socio-technical systems”.

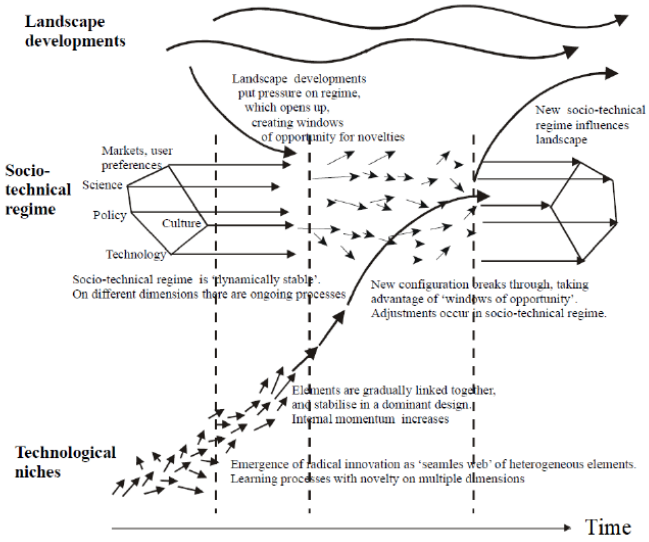
Scholars in the socio-technical school generally agree that transitions occur as a result of push and pull mechanisms deployed in an environment comprised of physical infrastructure, developed human capacities, and societal norms (Dosi, 1982; Kemp, 1994). As stated by Kemp (1994, p. 1032), "technological change and socioeconomic trends co-evolve and interact." Rip and Kemp (1998) call the locus of these interactions a sociotechnical system, a space where existing and emerging technologies (hardware) compete for diffusion and adoption, embedded in the "orgware", world of organizations, groups and actors, and the "socioware" or societal context. Rip and Kemp (1998) conceptualize the tensions and interdependencies occurring in a sociotechnical system using the three-part imagery of niches, landscape, and regime, where the niches are micro-level sites serving as test beds for innovation development; the landscape is the exogenous, macro-level where the broad patterns governing society are at play; and the regime is the meso-level realm of established practices and mature technologies. The socio-technical school birthed numerous transition theories or frameworks, 96 (ninety-six) of which have been identified by Geels and colleagues (2018), including the framework on technological innovation systems, strategic niche management, transition management approach, and the most popular, the Multi-Level Perspective or MLP (Kern & Markard, 2016).

The Multi-Level Perspective warrants attention here as it has gained significant traction over the years in academic and policy circles, probably because its big-picture view on transitions can easily be transferred to various systems (El Bilali, 2019; Geels, 2018b; OECD, 2015). Frank Geels (2002) is credited for expanding the three-level conceptualization introduced by Rip and Kemp (1998) into a framework that describes the macro-level dynamics of transitions (see Figure 2-6). For this dissertation that includes different levels of analysis (community, provincial, and national levels, as described in Table 1-1), the MLP framework is useful to illustrate how community energy schemes fit in and may impact the energy system of a province or country.

In the MLP framework, a transition results from the co-occurrence of processes within and between the regime, niche, and landscape. The regime is characterized by deep-seated lock-ins, constrained by sunk investments, mature infrastructures, cognitive routines, social capital, coalitions, vested political interests, and well-established policy networks (Geels, 2002). The regime may allow incremental progress in adopted technologies, e.g., renewable energy technologies or improvements in vehicle aerodynamics or innovation in electronic chips, yet tends

to resist radical changes, which causes transitions to typically unfold over several decades (Andrews-Speed, 2016; Rip & Kemp, 1998).

Figure 2-6. Multi-level perspective on system innovations and transitions (Geels, 2002; OECD, 2015, p. 22)



Most innovations (either technological like electric vehicles, or social like ride-hailing transportation) emerge in niches, at the periphery of the socio-technical system, then gradually diffuse across the system until they destabilize and replace the incumbent regime. Niche innovations may benefit from a sector-specific foothold due to relevant applications, e.g., health or military applications of a given technology, or from regulatory protection. Niche protection measures, e.g., preferential policies or feed-in-tariffs, can be deployed by the state to shield innovators from the risks and constraints typically experienced in emerging fields (Geels et al., 2018).

The landscape is the exogenous context where slow changing trends (demographics, ideology, climate change, etc.) coexist with shocks, including sudden events like pandemics, citizens' movements, etc. At times, several mutually reinforcing events combining socio-political, economic, and technical factors can contribute to first destabilize then replace the regime, allowing niche innovations to diffuse across the system faster than expected (Geels, 2018a).

Despite its wide use, the MLP framework is seen as insufficiently reflecting the political nature of energy transitions. In general, by promoting an "ontology devoid of power and politics" (Avelino et al., 2016, p. 559), the socio-technical literature tends to overlook the agency of institutional and corporate actors. Established scholars of the socio-technical school now increasingly recognize that political power sits at both ends of transition, being both the impetus that steers change and the result of power being redistributed, disrupted, and disputed through the transition process (Geels, 2014; Kern & Markard, 2016). Geels (2014; 2018) acknowledges that policy makers form an integral part of socio-technical systems as the resistance to change observed at the regime level often results from alliances between policymakers and incumbent firms. Such alliances are often predicated on mutual dependencies, especially in liberal economies where corporations expect the state to protect capital interests and the state relies on the private sector to provide jobs and fiscal revenues (Geels, 2014).

2.3.3 The socio-political school

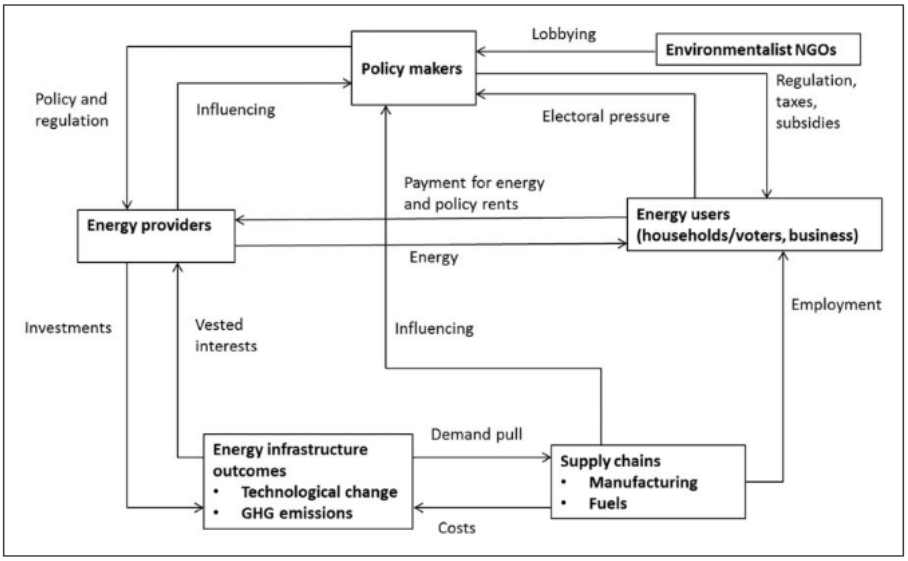
> *Once one has done the detective work necessary to reveal the social origins -power holders behind a particular instance of technological change- one will have explained everything of importance.*
> *Winner (1980, p. 122)*

It is not so much that references to state influence and political power are a complete novelty in the transition research, as evident from the above quote dated several decades ago. Rip and Kemp (1998, p. 359) also held the position that "technologies are shaped within the context of power struggles". However, energy transition studies took an explicitly political turn in the mid-2000s due to overt criticism of the excessive emphasis on technological innovation (Andrews-Speed, 2016; Langhelle et al., 2019; Meadowcroft, 2009). Lawhon and Murphy (2011, p. 363) posit that transition scholars who evade dimensions of politics and power use "a narrow and rather apolitical lens on the processes that shape socio-technical transitions, for artifacts themselves are given no agency" while choosing to focus "on the rules governing regimes – and not who creates and benefits from them".

The explicit premise of the socio-political school of thought is that energy systems are political systems and energy transitions are profoundly political (Lockwood et al., 2017; Meadowcroft,

2011). Langhelle and colleagues (2019, p. 255) predict that "acute political struggles will remain a permanent feature of climate and energy transition policies." Socio-political transition scholars foreground their analyses on energy policies, institutions, and the role of the state in framing problems and forming transition goals. The socio-political approach remains less theorized than socio-technical approaches, possibly due to the challenge of quantifying political influence and harmonizing interpretations of events in the energy sector (Cherp et al., 2018). There are a few attempts to offer an analytical framework, including by Lockwood and colleagues (2017) who represent the bidirectional relationship between households and policy makers, arguing that household are empowered to influence policy orientations being both energy users and voters (see Figure 2-7). This illustration aptly applies to the short-lived experiment with wind energy development in Ontario where citizens in rural conservative ridings exerted considerable political pressure, causing the provincial Liberal Party to lose most of its clout. However, the illustration is hardly applicable to energy users in Indigenous communities who exert limited pressure on policymakers and represent a small user tranche for mainstream energy providers.

Figure 2-7. Actors and relationships in the energy system (Lockwood et al., 2017, p. 315)



Some socio-political scholars use the popular Multi Level Perspective imagery as canvas to weave descriptions of the state's influence and policy measures on the niche, regime and landscape (Meadowcroft, 2011; Sovacool, 2016). Meadowcroft (2011) explains that government structures influence the landscape level through socio-economic policies, strengthen or weaken the

incumbent regime, and provide orientation and/or support for technological innovation. He (Meadowcroft, 2011) suggests interrogating the political dimension of transitions from the angles of interests, institutions, and ideas because societal interests drive political struggles, institutions house both established practices and reforms, and ideas carry the influence to offer diagnosis and prognostic about societal issues. Looking beyond the influence of governmental institutions and challenging the "David and Goliath" type of relationship between regime and niches, Avelino and colleagues (Avelino et al., 2016) propose a more fine-grained description of power, asserting that political power is dispersed among several actors who simply exert it in different ways at all levels: landscape, regime, and niche.

In an effort to develop a framework grounding the role of politics in energy transitions, Markard et al. (2016) advance an approach that blends the socio-technical perspective and the advocacy coalition framework (ACF), an established policy analysis tool developed by Sabatier (1987). In the ACF, a policy subsystem is formed by "actors from a variety of public and private organizations who are actively concerned with a policy problem" (Sabatier, 1987, p. 652). Though developed for different systems, the ACF model shares with the MLP framework the premise that external events or shocks provide the impetus for radical system changes. In the blended framework represented in Figure 2-8, the socio-technical and policy sub-system overlap, connected by resources, including finance and information, and actors who contribute to both systems. Paradigm shifts can happen in policy circles, sometimes across party lines, when the state and social actors adopt a new approach to a societal issue, which is likely to destabilize the established regime (Kern & Markard, 2016; Lockwood et al., 2017). Likewise, due to a crisis (nuclear accident) or declining technology costs, certain niches can gain support and end up destabilizing the regime. One may also think of certain events (e.g., TRC report, discovery of mass graves at former Indian Residential School sites) as potential socio-political shocks allowing niches like Indigenous-led energy projects to gain ground.

Figure 2-8. Interaction of policy subsystem and socio-technical systems (Markard et al., 2016, p. 221)

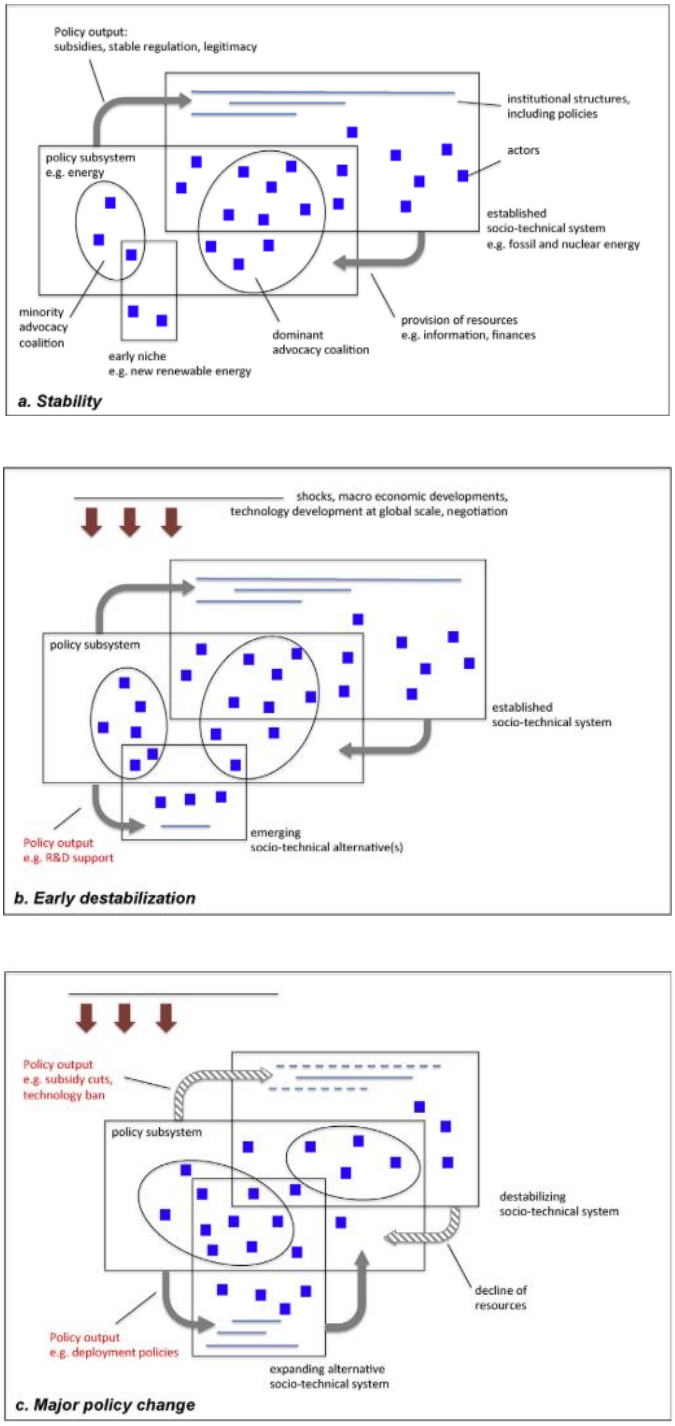


Table 2-1. Overview of the three perspectives on energy transition (Cherp et al., 2018, p. 182)

Perspective	Disciplinary roots	Systemic focus	Examples of concepts and variables	Examples of theories	Examples of models and applications	Limitations
Techno-economic	Economic history, neoclassical, evolutionary, ecological economics; energy systems analysis	Energy flows and markets	Energy resources, energy services, energy demand, energy infrastructure, energy prices	Supply-demand balance, market equilibrium, demand convergence, energy ladder, peak resource	IAMs and long-term climate-energy scenarios	Poor representation of technology inertia, innovation, and policy change
Socio-technical	Sociology and history of technology, STS, evolutionary economics	Energy technologies embedded in socio-technical systems	Socio-technical regimes, niches, landscapes, innovation systems, core and periphery	Technological lock-in, learning, diffusion, MLP	Transition management, innovation policies	Excessive focus on novelty, strive for "seamless web"
Political	Political science, political economy, policy studies, international relations	Political actions and energy policies	National interests, policy paradigms, constitutional systems, special interests, voters' preferences, institutional capacities	Punctuated equilibrium, multiple streams, ACF, policy learning and diffusion	Design of international regimes and domestic policies	Poor representation of material factors

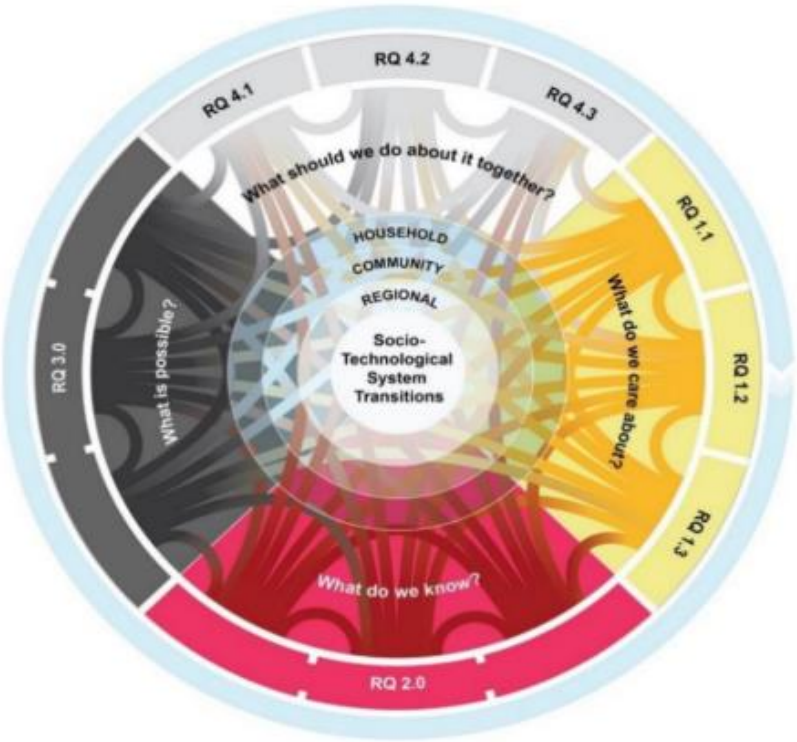
STS = Science & Technology Studies; IAM = Integrated Assessment Model; MLP = Multi-Level Perspective; ACF = Advocacy Coalition Framework.

As shown in Table 2-1, the boundaries between the above-described schools on transition are not clear-cut. It is clear though that various intellectual traditions contribute to explaining energy transitions and insights from the three schools of thought are in fact needed to understand energy transitions in their various social and geographical nuances (Cherp et al., 2018). Bringing them together allows understanding that wind power grew in Denmark and Germany thanks to the mobilization of wind industry actors and a favorable legal context while, despite similar policies, European wind developers were not successful in Japan where the nuclear coalition had a stronger political anchor (Cherp et al., 2018). The three schools of thought ask diverse questions and interrogate the various contexts in which transitions unfold. However, the questions have so far barely reached Indigenous contexts and lived experiences, although some authors like Avelino and colleagues (2016) acknowledge that "the situated nature of transition politics requires a deeper knowledge of the historical and spatial contexts" of these transitions. Likewise, Lawhon and Murphy (2011) contend that the relevance of energy transition studies is tied to their applicability beyond Euro-American contexts. Unfortunately, the literature on energy transitions is still dominated by studies from First World contexts (Grubler, 2012). As a matter of fact, a very well received paper by Kölher and colleagues (2019), which reviews the state of knowledge in sustainability transitions research and proposes an agenda for future engagement, is striking by its highly Eurocentric authorship: the list of 29 co-authors includes only one Black African female contributor and no author identified as Indigenous. This lack of diversity among researchers is

problematic because it bears the risk of excluding or minimizing certain research questions and contexts.

Schaefer and colleagues (2021) make a similar observation, noting that most transition studies overlook social relationships, cultural values, and justice, and ignore historic marginalization. Building on the empirical work of Michigan Community Anishinaabe and Rural Energy Sovereignty (MICARES) research team, they propose a framework illustrating concerns about community energy projects on Indigenous lands (Schaefer et al., 2021). The proposed framework (Figure 2-9) is centered on a medicine wheel, a circular representation of physical, emotional, spiritual, and cultural connections (there are many documented representations of medicine wheels). The framework highlights the dynamic relationships between all those impacted by the energy project.

Figure 2-9. Rural energy sovereignty and medicine wheel framework (Schaefer et al., 2021, p. 9)



The questions included in the framework provide an appropriate conclusion to this section by alerting to some of the silences of the mainstream transition literature. The next section turns to bodies of work focusing on Indigenous experiences.

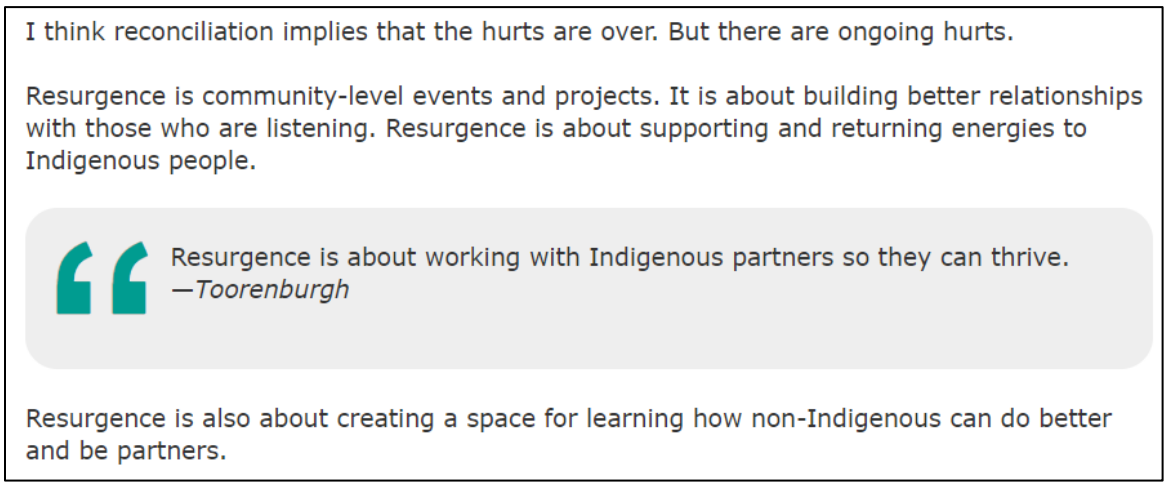
2.4 Indigenous political ecology

The fact that the literatures on community wind energy and energy transitions, even when extending into the political sphere, rarely incorporate Indigenous experiences is problematic for the academe. In this dissertation, the questions raised cannot be answered in a cultural and historical vacuum. Following Linda Tuhiwai-Smith's (1999) landmark critique of Western research and colonization of knowledge, many proposals have emerged to expand the Indigenous research agenda on nature and society. The following sections browse through some of these proposals, briefly introducing Indigenous studies before landing on Indigenous political ecology, which is the lens chosen to address the research questions in this dissertation.

2.4.1 Indigenous studies

The term Indigenous studies broadly encapsulate avenues and methods of research that depict Indigenous values and epistemologies while avoiding the trap of essentializing Indigenous people. A few Canadian examples help illustrate how broad the field of Indigenous studies has become, as Indigenous resurgence takes hold in academia and universities respond to the Truth and Reconciliation Calls to Action by seeking to decolonize their institutions.

Plate 2-2. Statement from the Indigenous Resurgence Coordinator at University of Victoria, British Columbia, Canada


I think reconciliation implies that the hurts are over. But there are ongoing hurts.

Resurgence is community-level events and projects. It is about building better relationships with those who are listening. Resurgence is about supporting and returning energies to Indigenous people.

> Resurgence is about working with Indigenous partners so they can thrive.
> —*Toorenburgh*

Resurgence is also about creating a space for learning how non-Indigenous can do better and be partners.

Source: https://www.uvic.ca/science/home/news/current/inaugural-indigenous-resurgence-coordinator.php

Academic institutions have different starting points and goals around Indigenous studies. The University of Toronto defines Indigenous Studies[4] as "the scholarly study and research of the priorities and aspirations of Indigenous peoples in Canada and throughout the world". The Faculty of Native Studies[5] of the University of Alberta seeks to "inspire generations to come through collaborative community engagement that centres Indigenous knowledges." At the University of Western Ontario, the interdisciplinary program of Indigenous Studies[6] "provides scholars with multiple points of reference to … reach a more holistic understanding of the factors that impact local and global Indigenous peoples". This small sample highlights the wealth of approaches and difficulty of classifying Indigenous knowledge systems and traditions of resistance against colonial systems (Daigle & Ramírez, 2019).

What is most important for this dissertation is the understanding that before and beyond these various institutional statements, Indigenous and non-Indigenous scholars, including geographers, have been using elements of postcolonial scholarship to highlight within their disciplines the complex characteristics and heterogeneity of Indigenous aspirations and renaissance projects (Coombes et al., 2012b; Daigle & Ramírez, 2019; Richmond & Big-Canoe, 2018). Mi'kmaq scholar Diana Lewis (2020, 2021) advances Indigenous-led environmental health research and advocates for Indigenous feminist approaches that challenge historic and present patriarchal forms of violence. Inspired by his field work in an Indigenous community in Nicaragua, the non-Indigenous historical geographer Karl Offen (2004) proposes historical political ecology as a lens to examine how colonial legacies shape nature-society conflicts, through both resource control and narratives about lands and Indigenous peoples.

---

[4] https://indigenousstudies.utoronto.ca/about/what-is-indigenous-studies/

[5] https://www.ualberta.ca/native-studies/index.html

[6] https://indigenousstudies.uwo.ca/about_us/index.html

Beyond discipline naming and semantics, a fundamental element in this dissertation is the awareness that settler colonialism is not an event of the past, but an established structure, morphing over time and permeating all socio-economic sectors and ecological transactions, including energy transitions. Following Lawhon and Murphy's call (2011) for energy transitions scholars to distill insights of political ecology in their studies, this dissertation adopts the lens of Indigenous political ecology, which blends political ecology and Indigenous studies. To better understand the relevance of Indigenous political ecology (IPE) for this dissertation, it is useful to first examine the limits of mainstream political ecology (PE).

2.4.2 Is political ecology not enough?

Political ecology (PE) weaves together the interests of political economy and cultural ecology. From the 18th century, the influence of politics in social processes was established in writings by political economists like Thomas Malthus and Adam Smith who observed that nature was being continuously transformed through human labor in various social and cultural ways (Watts & Peluso, 2001). The 19th century saw an emerging interest in nature with the birth of ecology, defined by Ernst Haeckel in 1870 as "the body of knowledge concerning the economy of nature" (Costanza, 1996, p. 978). Despite this early connection between nature and economy, ecologists kept producing decades of analyses of communities and their physical environment in an alleged bio-physical equilibrium insulated from external influences (Paulson et al., 2005). Leff (2015) locates the first occurrence of the term political ecology in a 1935 commentary by the plant physiologist Frank Thone (1935) who compared Japan's impending conflict with Outer Mongolia to the colonial war that opposed US troops to Plain Indians. Under the title political ecology, Thone (1935) described the political similarities of the two conflicts, both borne over opposing strategic interests in the use of natural resources.

The term political ecology (PE) fully gained its credentials from the 1970s on a backdrop of social contestation and civil rights movements in the United States and independence declarations in African countries (Perreault et al., 2015). Contesting apolitical views of ecology, the anthropologist Eric Wolf and the poet-editor Hans Magnus Enzensberger were among the first to call for a critical re-thinking of the dualism between environment and society and a close examination of the victims of the capitalist pillage of nature (Leff, 2015; Perreault et al., 2015).

Borrowing from political economy, anthropology, environmental history, geography, and other fields, PE grew as a broad and somewhat eclectic discipline providing pertinent tools to examine environmental conflicts (Watts & Peluso, 2001). PE propounds that political aspects should take pre-eminence when examining interactions between people and nature (Bryant, 1998). PE closely examines how power and politics assign winners and losers in ecological transactions (Robbins, 2012). Without pretending to hold a "monopoly on the study of nature-society" (Perreault et al., 2015, p. 8), PE relentlessly challenges mainstream shibboleths about nature and society, including apolitical accounts of resource development, to articulate alternative understandings of the world.

Attention to the discourses and representations which frame people and problems in particular ways could provide political ecologists with a solid vantage point to understand Indigenous struggles on their territories (Peet et al., 2010). However, some Indigenous scholars contend that PE does not adequately depict Indigenous values and epistemologies (Coombes et al., 2012a). For example, where PE examines land conflicts, it sometimes fails to examine land as more than a commodity (Middleton, 2015). For Indigenous peoples, land is life and activities undertaken on the land affect their very identities, as illustrated by Plate 2-3. Further, mainstream PE does not always decipher that, even when Indigenous communities embrace environmental narratives, their main underlying aspiration is self-determination on their lands (Schlosberg & Carruthers, 2010).

Plate 2-3. Everything connected to the land is connected to our bodies

Source: Katie Fouglas, https://landbodydefense.wordpress.com/category/art/

2.4.3 The appeal of Indigenous political ecology

The term Indigenous political ecology (IPE) was coined, or rather suggested, by Beth Rose Middleton (2015, p. 566), an African-American scholar with Caribbean ancestry, who nevertheless affirms that “an indigenous political-ecology approach is specifically by and for indigenous peoples.” She opines that Indigenous worldviews are not fully represented in mainstream political ecology, despite its emancipating purpose. In contrast, IPE proposes to connect indigenous epistemologies to political-economic dynamics between actors involved in ecological transactions, explicitly challenging colonial perspectives (Middleton, 2015). As stated by Middleton (2015, p. 564), “articulating an indigenous political ecology aims to change the context of knowledge production and consumption, and, thereby, the questions that inform policymaking regarding indigenous places and populations hit by the effects of climate change”. This is particularly relevant for this work on Indigenous-led community energy and energy transition in Canada.

Middleton (2015, p. 562) proposes to bridge political ecology and Indigenous studies along the four following lines: “(1) Attention to ‘coloniality’ or ongoing practices of colonialism (e.g., displacement of indigenous peoples from their lands); (2) Culturally specific approaches reframing analyses in line with indigenous knowledge systems; (3) Recognition and prioritization of indigenous self-determination, as expressed through indigenous governance; and (4) Attention to decolonizing processes that explicitly dismantle systems of internalized and externalized colonial praxis.” The first and third propositions, which recognize contemporary forms of coloniality and Indigenous resurgence, are particularly germane to the Canadian context where colonial institutions continue to shape the political and economic organization of Indigenous communities.

In settler colonies like Canada, European imaginaries were translated into “material consequences for colonized peoples” (Offen, 2004, p. 28) and their territories to this day. Settler institutions continue to approve “certain forms of exploitation while simultaneously denying others” (Offen, 2004, p. 29), invite or exclude certain people to the drawing board of sustainable futures, ultimately banging the gavel to declare what is acceptable in resource management and low-carbon economies. In many Indigenous communities, the combination of low population density and abundant natural resources contributes to making their territories a prime commodity frontier

for capitalist interests (Reyes-García et al., 2014). Even though the current energy transition upholds sustainability narratives, natural resources are still treated as capital, often in the name of global good (Middleton, 2015; Rodman, 2013). Leff (2015, p. 35) highlights that, at "the crossroads towards a sustainable future, the crucial point is the clash of views to attain its objectives, traversed by economic, political and personal interests". IPE is useful to examine this clash between Indigenous and non-Indigenous worldviews and elucidate how "political, epistemic, racial and cultural hierarchies established during colonization remain entrenched" in present days (Middleton, 2015, p. 564).

IPE also offers the opportunity to accommodate, not only the expected stories about Indigenous communities fighting dispossession, but also the unwonted cases that defy the commonly broadcasted swim-along-or-sink survival accounts. Such a case is described by Boutet (2014) who, recounting the experience of Innu communities in northern Quebec, explains how they constructed a unique economic model in the midst of iron mining. Boutet (2014, p. 81) emphasizes the "sophisticated level of creativity and personal agency embraced by the Innu who…were at least partly successful in reaffirming indigeneity amidst dominant settler activities". Subscribing to the alternative thinking recommended in IPE, Blaser (2004, p. 26) contends that "Indigenous communities do not just resist development, do not just react to state and market; they also sustain 'life projects'. Life projects are embedded in local histories; they encompass visions of the world and the future that are distinct from those embodied by projects promoted by state and markets." An even more important contribution of IPE is the increasing recognition that Indigenous life projects across the world offer proven examples of ways to meet needs of the present society without compromising the ability of future generations to meet their own needs. The essence of sustainable development articulated by the Brundtland Commission in 1987 is in fact the philosophy sustained by some many Indigenous communities. This is not to romanticize or idolize Indigenous lifestyles. As stated by Borrows (1997), "Indigenous knowledge is imperfect" and not always sufficient to tackle the new threats posed by current ecological crises; plus Indigenous people have, at times, been complicit in environment degradation. However, delegitimizing Indigenous knowledge and sidelining their worldviews would be a costly course of action, one that IPE is suitable to challenge and alter.

In summary, the value added of IPE in this work is that it builds on PE's well-established body of work to examine how colonialism is both perpetuated by settler structures and countered by Indigenous life projects, and this at various scales, from the community to the country to the global level. One pillar of PE, and IPE by extension, that is particularly relevant in the Canadian context of energy transition and reconciliation is the attention to and the discussion of power relations.

2.5 At the intersection: Reflections on power

> *If Indigenous cultural traditions were deemed to be on equal ground with the colonizer's traditions, colonialist practices would be impossible to rationally sustain. Unless they were willing to complete a project of complete extermination, their sense of peace required the muting of Indigenous voices, the blinding of Indigenous worldview, and the repression of Indigenous resistance.*
> *(Waziyatawin, 2013, p. 20)*

Waziyatawin's statement illustrates the power exerted by colonial institutions and practices. A section dedicated to power is justified because power sits at the intersection of and is embedded in the three strands of literature that form the theoretical underpinning of this dissertation, namely community wind energy (CWE), energy transitions (ET), and Indigenous political ecology (IPE). CWE is marketed along a decentralized model that invites citizens to participate in their energy future and benefit from a redistribution of power. On the terrain of energy transitions," there is no escaping politics" as observed by Meadowcroft (2011, p. 71) and power is weaved into the political processes that dictate the direction, stories, and pace of transitions (Geels, 2014; Meadowcroft, 2009). Power is also front and center in political ecology and is inextricably tied to past and present colonial projects. Conversely, Indigenous acts of resurgence are geared towards reclaiming social, political, and economic power (Alfred, 1999).

Rather than providing an extensive exposé, the objective of this section is to unpack the omnipresent concept of power and its meanings relevant for the socio-political arena and social actors (Avelino, 2017). Applying Foucault's views on power to low-carbon transitions, Tyfield (2014, p. 588) suggests that "power is not a thing but a relation, not possessed and concentrated but constitutive and (asymmetrically) dispersed, not presumptively bad but normatively

ambiguous, not just oppressive and destructive but also productive and ontologically necessary for the construction of all human creations". Similarly, Veneklasen et al. (2007) assert that power is a multi-dimensional force that can restrict or enable certain processes, depending on whether it is exerted *over*, *within*, *to*, or *with*. In that sense, one can distinguish *power over* as the dimension that most often comes to mind because its effects are worst felt by those under its clamp. It involves domination, control over, and dispossession from one by another (Conger & Kanungo, 1988; VeneKlasen et al., 2007). To some degree, *power over* results from the dependency of the power-deprived (or powerless) one vis-à-vis the powerful (Conger & Kanungo, 1988). As many scholars explain, Indigenous communities investing in renewable energy often seek to sever their dependency vis-à-vis the federal government.

Power within refers to the endogenous dimension or self-worth that allows individuals to picture their own dignity, value, and ability to induce change. As Indigenous communities develop their land-based resources on their own terms, they regain the dignity and well-being crushed by oppressive colonial structures. A successful community cultural and economic revitalization like the example of Kanaka Bar (Fitzgerald, 2018), discussed in section 2.2.4.4, would be an example of *power within.*

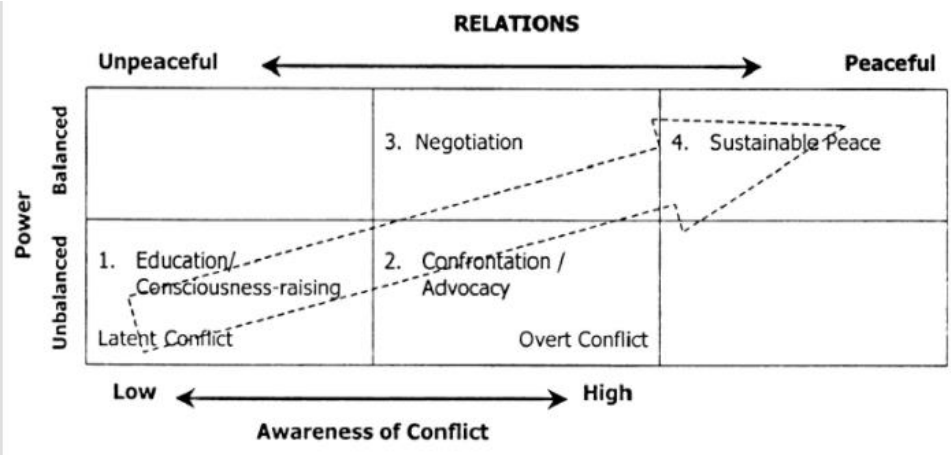
Power to refers to potential or agency and is related to the available opportunities and abilities that individuals or groups have to act on their surroundings (Partzsch, 2017). The previous chapter describes how M'Chigeeng First Nation seized the opportunities offered by the Green Energy Act and its Feed-in-Tariff programme to develop the MERE project.

Finally, *power with* describes a collective ability stemming from collaboration, alliances, and pooling of resources (Partzsch, 2017; VeneKlasen et al., 2007). In Canada, Indigenous communities have been resisting colonial oppression for centuries, mobilizing their members and non-Indigenous allies to make their voices heard and induce change. The Truth and Reconciliation Commission and the momentum of change it generated across the country illustrate the impact of *power with*.

Figure 2-10 illustrates the linkages between power and relations, suggesting that relationships evolve from being unpeaceful to peaceful as people acknowledge and address power imbalances. In absence of acknowledgment or in situations of limited social awareness, there is no genuine

peace and conflict is simply contained. As awareness grows, “many people move to action and confront the problem…if successful, the process increases the balance of power and legitimizes their efforts for change. Once inequities have been addressed, and only then, do negotiation and sustainable peace become possible” (VeneKlasen et al., 2007, p. 46).

Figure 2-10. Linkages between power and social relations (VeneKlasen et al., 2007, p. 46)



Expanding the thesis about power as a neutral force that can be variously exerted, Avelino (2017) articulates three intentions or purposes of power: *reinforcive, innovative, and transformative*. Avelino (2017, p. 508) defines *reinforcive power* as “the capacity of actors to reinforce and reproduce existing structures and institutions”. *Innovative power* generates new resources, be it tangible artefacts, ideas, narratives, or financial resources (Avelino, 2017). Through *transformative power*, social actors can develop new tangible or intangible structures such as energy infrastructures, ideology, or paradigm. These three forms of power may be exerted in concert, if for example, innovation precedes transformation, or may challenge each other. Applying her triumvirate of power to the Multi-Level Perspective on energy transitions, Avelino (2017) places *reinforcive power* at the heart of the regime (seeking to consolidate itself) while *innovative power* tends to sit in niches.

Avelino’s articulation of power is useful to interpret the engagement of Indigenous communities in renewable energy in Canada and around the world. On the one hand, Indigenous peoples have demonstrated throughout history their innovative power in devising strategies of resistance and acts of resurgence and self-determination (Canning, 2018; G. N. Wilson & Selle, 2019). Further, their contemporary assertions of rights and identities act as niches aiming to dismantle the

structures (settler regime) maintaining Indigenous communities in subpar living conditions and transform the colonial trope professing “that there is only one, right way to use land, live, organize culture and/or develop a nation” (Dunlap, 2018, p. 553). On the other hand, colonialism requires *reinforcive power* to sustain itself over time, including by epistemic violence and hegemony of a certain knowledge, acting as *power over* (Dunlap, 2018; VeneKlasen et al., 2007). Such forms of power are overwhelming, insidiously crafting narratives and obfuscating counter-narratives (VeneKlasen et al., 2007). It is with all the above in mind that I approach the interpretive work prompted by the research questions below.

2.6 At the intersection: Questioning community and society

This thesis is prompted by three independent yet related research questions deriving from the context presented in Chapter 1 and the body of literature introduced in the previous sections. The first research question probes how public narratives on the energy transition intersect with those about reconciliation between Indigenous and non-Indigenous peoples in Canada. Energy transition and reconciliation are two stated priorities of the liberal federal government in power since 2015. Further, these priorities were meshed in the conclusions of the 2017 Generation Energy consultation that posed the energy transition as an opportunity for reconciliation (Generation Energy Council, 2018; NRCAN, 2018). Given the Eurocentric perspectives dominating energy transition studies (section 2.3) and the ongoing colonial pressures onto Indigenous lands and resources (section 2.4), it is warranted to analyze narratives emanating from settler institutions and confront them with Indigenous voices and stories. The latter can only be partially done through the first research question. Hence the relevance of research questions 2 and 3 that begin to probe Indigenous stories through the example of M’Chigeeng First Nation.

Research questions 2 and 3 focus on the attitudes towards the MERE wind energy project in M’Chigeeng First Nation, seeking to elucidate what the community’s response say about relationships and power in the settler Canadian society. Section 2.2 shows the paucity of the literature on community wind energy regarding Indigenous contexts. Even case studies emphasizing place attachment as a driver of community acceptance of wind turbines often stop at the analysis of psychological dimensions, leaving unattended the vital importance of land for Indigenous communities and the enduring impacts of colonization. Research questions 2 and 3

allow confronting the stories of Indigenous citizens living with renewable energy infrastructures to the high-level narratives considered by the first question. The succinct presentation about power (section 2.5) is an important foundation of that analytical confrontation, as it casts light on some of the ways power is exerted, reinforced, or resisted in the complex web of social relations. This complexity justifies the mixing of methods presented in the next chapter.

Chapter 3

3 Methods

3.1 Introduction

This dissertation follows an integrated article format. While the three articles (Chapters 4, 5 and 6) outline the methodological approaches followed within the limits of editorial word counts, this chapter presents the rationale behind the combination of methods and explains the research partnership with M'Chigeeng First Nation. The splicing of the three bodies of literature described in Chapter 2 has both contextual justifications and methodological implications. The community wind energy literature raises questions about community responses to the process of developing of wind projects and outcome thereof, while recognizing that the very concept of community is fraught with uncertainty and tensions. The socio-political school on energy transitions researches the role of governments and policy tools. Indigenous political ecology attends to the framing of Indigenous perspectives and restoration of Indigenous self-determination. The complexity of engaging with these three bodies of work is reflected in the decisions to use diverse ontological approaches which, though appearing disparate, build on and enrich each other.

Critical discourse analysis allows for distant dissection of language used in public by Indigenous and non-Indigenous Canadians. Semi-structured interviews grant the opportunity to engage in private and extended conversations with Indigenous citizens who are less represented on the public scene. The depth of understanding awarded by these conversations is augmented by the breadth of perspectives provided by a survey which allowed reaching out to M'Chigeeng members living off-reserve, a group of people that can be hard to locate (Hesse-Biber, 2010). In summary, given the context and scholarship associated to this work, there is a strong case for avoiding "disciplinary dogma" (Sovacool et al., 2022, p. 3) and taking advantage of using mixed methods for what it brings. First, mixing methods enriches the research as it can "enhance the validity and reliability of findings as well as allow for the exploration of contradictions found between the quantitative and qualitative results" (Hesse-Biber, 2010, p. 465). Moreover, as Chilisa and Tsheko (2014, p. 224) posit, "there cannot be an indigenous research without mixed methods". Finally, the use of mixed methods allows situating lived experiences in a broader socio-

political context, which provides “policy makers with a much-needed “dual perspective” on the social world that uses words and numbers” (Hesse-Biber, 2010, p. 467) and ultimately serves the goal of social justice.

This goal also underpins my research so mixing these various methods was relevant and sensible. Given the double impetus of exploring the MERE project and unpacking the conclusion of the Generation Energy consultation, I had to understand the historic and contemporary context surrounding settler and Indigenous communities in Canada and their engagement in renewable energy. This was best achieved by desk research. Also at the heart of my research questions is the understanding of the lived experiences of M’Chigeeng members living next to wind turbines; interviews allow for adequate probing of such experiences. Finally, undertaking a survey was not in the initial design but responded to the demands of community-based research as a member of the Advisory Committee asked to reach out to all community members after the interview phase. Overall, combining these methods yielded depth through semi-structured personal conversations, breadth from opening the survey to the whole M’Chigeeng membership, and scope through the non-intrusive analysis of public discourse.

3.2 Desk research: Discourse and content analysis

> *In any society, there are manifold relations of power which permeate, characterise and constitute the social body, and these relations of power cannot themselves be established, consolidated nor implemented without the production, accumulation, circulation and functioning of a discourse (Nola, 1998, p. 112)*

In a research landscape where community politics, energy policy, and colonial legacies are intertwined, the value of analyzing discourses lies in the opportunity to understand power and its many articulations, as described in section 2.5. I used discourse and content analysis as the first step of my investigative work to better ascertain the shaping-potential of public narratives on energy and reconciliation in Canada. The 11-year period of analysis starts in January 2007, includes the 2009 Green Energy and Green Economy Act, the 2015 report of the Truth and Reconciliation Commission, the 2015 Paris Agreement on Climate Change, and ends in June 2018 when the new Conservative government came in power in Ontario. This time span is consistent

with Sabatier's (1987) observation that coalitions formation and stabilization of beliefs generally occur over periods of ten years or so.

The term discourse is used very differently across disciplines. Beyond the general view of discourse as language in use, discourse may be defined as a set of "ideas, concepts and categories through which meaning is given to social and physical phenomena, and which is produced and reproduced through an identifiable set of practices" (Hajer & Versteeg, 2005, p. 175). As such, discourses are social structures and their usage is a social act affecting individual members of society (Diaz-Bone, et al., 2007; Howarth, Norval, & Stavrakakis, 2000). The term "discourse analysis" is formed from the Latin *discurrere* meaning 'running back and forth' and the Greek *analyein* meaning 'deconstruct'. The exercises of progressing back and forth, weaving, and deconstructing are all found at the core of analyzing discourse.

Michel Foucault left a significant mark in the two schools which, loosely categorized, take interest in discourse analysis, the Loughborough and Manchester schools (Ballinger & Payne, 2000). While the former school focuses on structure, forms, and functions of phrases, the latter seeks to cast a critical look at dominant views (called discourses) and interpret perspectives about life and society (Ballinger & Payne, 2000). In this dissertation, I follow the latter interpretive approach, drawing from Foucault's descriptions of power structures reflected in language. In his theses about discourse, Michel Foucault articulated first an archeology concept then the notion of genealogy (Hook, 2005). The concept of archeology refers to the investigation of discourse formation by which Foucault deconstructs the history of ideas, yet refrains from seeking hidden meanings, treating ideas like monuments (Garrity, 2010; Miles, 2010). Further exploring issues of power led Foucault to develop the genealogy approach whereby he extends his interest in the origins of texts to locate where traces of power emerge in the discourse (Hayter & Hegarty, 2015; Miles, 2010) and which structures or institutions use those powers (Wodak & Meyer, 2009). Foucault's departure from archaeology's denial of hidden meanings in texts and the overtly political agenda of his genealogy approach is the basis of what became critical discourse analysis (Wickham & Kendall, 2007; Wodak & Meyer, 2009).

Critical discourse analysis is fundamentally concerned with power and how it permeates connections, apparent or opaque, between discursive practices, language, and social structures, people and institutions (Fairclough, 1993; Wickham & Kendall, 2007). As a discourse is

immaterial (yet with profound material implications), the substrate of analysis is often the text which stands as a repository and material manifestation of social praxis (Greckhamer & Cilesiz, 2014; Powers, 2013). Following Marx and Engels, Durham and Kellner (2009) assert that the dominant class in society generally has the means of text production, including through media, which award them control over minds, beliefs, and behaviors. Observing that texts are shaped by and help shape social practice, Fairclough (1993) posits that this bidirectional activity leaves in texts cues that can be discerned through an interpretive process premised on the principle of intertextuality. Intertextuality essentially means that texts include snatches of other texts (Li, 2009) and that meaning in a given text depends on a network of prior and concurrent texts (Adjei, 2013). In Foucault's terms (2002, p. 32), there are "relations between statements (even if the author is unaware of them; even if the statements do not have the same author; even if the authors were unaware of each other's existence)".

Despite the analytical potential of discourse analysis, the method is subject to deep contention among social scientists and remains a path trodden with caution in geography. Discourse analysis presentations often remain deeply grounded in theory, leaving unresolved a number of operationalization issues, including the issue of text sampling (Wodak & Meyer, 2009). Some scholars also frown at the absence of prescriptive rules to interpretation which, in their views, undermine the trustworthiness of discourse analysis as a form of qualitative inquiry. Foucault (2002, p. 32) himself acknowledges that, going through texts, it is "not possible to describe all the relations that may emerge…without some guidelines." To those that dispute the interpretive claims of discourse analysis, discourse analysis proponents counter that the goal of discourse analysis is the very act of generating interpretive claims, rather than discovering a single truth (Nixon & Power, 2007). In practice, discourse analysts use various techniques to navigate through texts, deconstruct meanings, and expose woven patterns. They often supplement the qualitative interpretation of language use with content analysis that is a quantitative exploration of phrases and words (Tonkiss, 2004). Pairing discourse and content analysis allows capturing both the depth of meanings and the breadth of coverage of themes appearing in texts (Tonkiss, 2004). I present the web of texts used and the processes of data collection followed in my discourse and content analysis in Chapter 4.

This desk research phase proved extremely useful to refine my research questions and more critically examine the bodies of literature they draw from. In energy transitions, attending to discourses allows unpacking the various facets of power exerted at different sites of the energy system (Lawhon & Murphy, 2011; Rosenbloom, 2018). Discourses are essential implements of the political arsenal undergirding transitions as they "shape not only *what* is being discussed (thus setting agendas) but also *how* issues are discussed" (Geels, 2014, p. 29). The attention to, and exercise of power also unites discourse analysis and Indigenous political ecology. There are ongoing colonial practices in contemporary Canada that are reflected in language and texts. In the national project of reconciliation in Canada, a discourse can be a force for change, allowing to generate "imaginaries of the future and in making previously unthinkable alternatives plausible and conceivable" (Feola & Jaworska, 2019, p. 1644). There is a parallel observed in the language of regeneration, restoration, and relationship-building emerging from several social movements worldwide (Escobar, 2011). The desk research portion was also essential to prepare the subsequent interviews and survey because "coding is in service of thinking. The insights you make about social phenomena emerge from a lot of backstage work with coding, but most importantly from the analytical connections you construct and report" (Saldaña, 2015, p.80). The analytical connections made through discourse and content analysis informed the design of the interview and survey instruments used in my community engagement.

3.3 Research collaboration with M'Chigeeng First Nation

Rather than a set of techniques, community-based research (CBR) is a research orientation that departs from the tradition of conducting **research on** communities to embrace doing **research with** them (Wallerstein & Duran, 2006). Blumenthal (2011, p. 386) defines it as "a collaborative research approach that is designed to ensure and establish structures for participation by communities affected by the issue being studied, representatives of organizations, and researchers in all aspects of the research process to improve health and well-being through taking action, including social change". CBR places the researcher in the dual and active role of learner and agent of change alongside community members. As co-learner, the researcher collects perceptions and experiences around mutually agreed and mutually beneficial research topics. As co-agent of change, the researcher is involved in facilitating the desired social action and community empowerment (Blumenthal, 2011). However, there are several challenges inherent to community-

based research, despite its noble intentions, starting with identifying the contours of the community (Blumenthal, 2011). Scholars recommend eschewing the perception of communities as monolithic blocs but rather endeavoring to ensure that most voices are heard. Another related challenge is the collective interpretation of respondents' statements since community interactions afford revealing stories that pertain to individuals (Baxter & Eyles, 1997).

Further, because all research is political (Brayboy & Deyhle, 2000), when the research is conducted in an Indigenous community, there are additional layers of complexity to deal with. One such layer is the colonial past, mainly because "research is a distinguishing characteristic of universities…major bastions of Western elitism" (Tuhiwai-Smith, 1999, p. 129). Key success factors in CBR in Indigenous contexts include upholding decolonizing principles, attending to healing and transformation, and promoting the community's empowerment and self-determination (Castleden et al., 2008; Snow et al., 2016; Tobias et al., 2013). These are umbrella terms which realization exceeds the scope of a PhD project yet are fitting to set the tone of the type of relationships required in a partnership between an academic institution and an Indigenous community.

As in any community-based research, it took time to build a respectful relationship and establish some level of trust with counterparts in M'Chigeeng First Nation. Discussions about a possible research collaboration between Western University (MOCWE team) and M'Chigeeng (HIAH Corporation) started late 2015 and continued both on the phone and face-to-face at the Band Office until the adoption on August 1st, 2018, of a Band Council Resolution (BCR) authorizing the research project for two years. Obtaining the BCR would not have been achieved without the active engagement of HIAH staff, especially Grant Taibossgai, General Manager, and Jeff Corbiere, Renewable Energy Manager, who were committed to the partnership from the very beginning. Their engagement was also instrumental in securing the extension of the BCR from September 1st, 2020, to December 31st, 2021. Mr. Corbiere was instrumental and most commendable in managing the day-to-day of the research partnership on M'Chigeeng side.

Abiding by good CBR practices, we suggested that an Advisory Committee be put in place from the beginning to ensure continuous communication and respect of community values throughout the project (Castleden et al., 2008). Committee members included on M'Chigeeng side, a community Elder, Alma Jeans Migwans, and HIAH staff (Grant Taibossgai, Jeff Corbiere, and an

Admin Assistant), and on Western University side, MOCWE Principal Investigator, Dr. Jamie Baxter and myself. The Committee discussed and adopted the appropriate ways to engage community members (financial acknowledgments, meetings, recruitment, newsletter, etc.) as well as the content of data collection instruments (interview guide and survey questionnaire). Regarding financial acknowledgments, the Advisory Committee agreed on honoraria to be paid to Elders assisting the project, including Elder Alma Jean Migwans who sits on the Committee and Elder Eria Beboning who officiated the community launch event. Sadly, Elder Eria passed away in December 2021. The Committee also agreed to recruit a research assistant to support community engagement and data collection. After a complicated recruitment process, a study assistant supported the project for six months but, due to delays in survey preparation, the contract was discontinued.

We kicked off the project on 25 July 2019 with a family-friendly town hall evening opened by Elder Eria and former Chief, Joseph Hare, the visionary leader, and Indian Residential School survivor who stands as the visionary leader and architect of the MERE project. Joseph Hare recounted how, as Chief in 2001, he shared with the community his vision of the wind project and benefits that the members could reap. Members of the Advisory Committee then provided an overview of the MERE project (see Plate 3-1) and explained the main objectives of the research partnership and how members' input would be sought. Two posters (Plate 3-2) prepared by the Cartographic Unit of the Department of Geography and Environment at Western University were on display during the evening and remain available to use by the Band Office.

Plate 3-1. Launch event on 25 July 2019: Presentations of Advisory Committee members

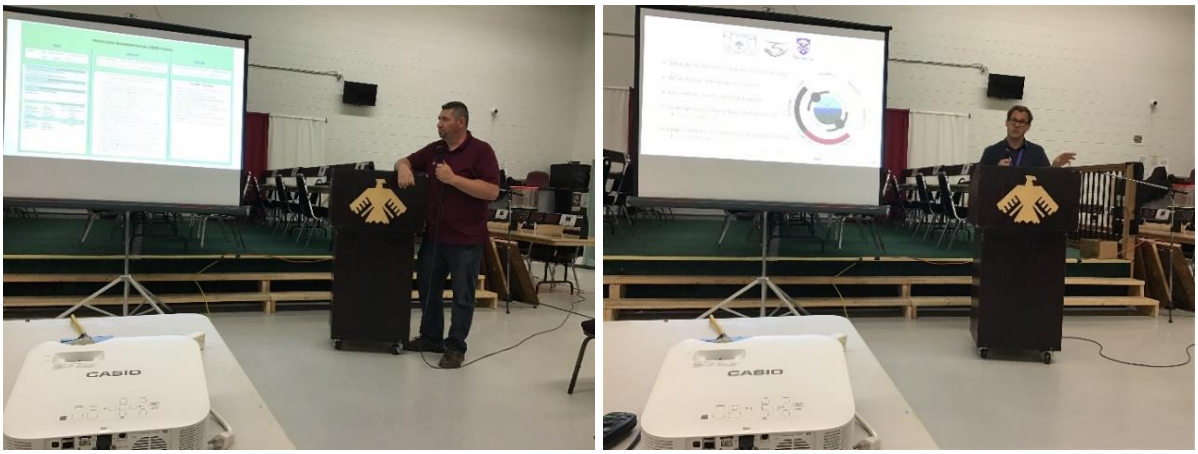
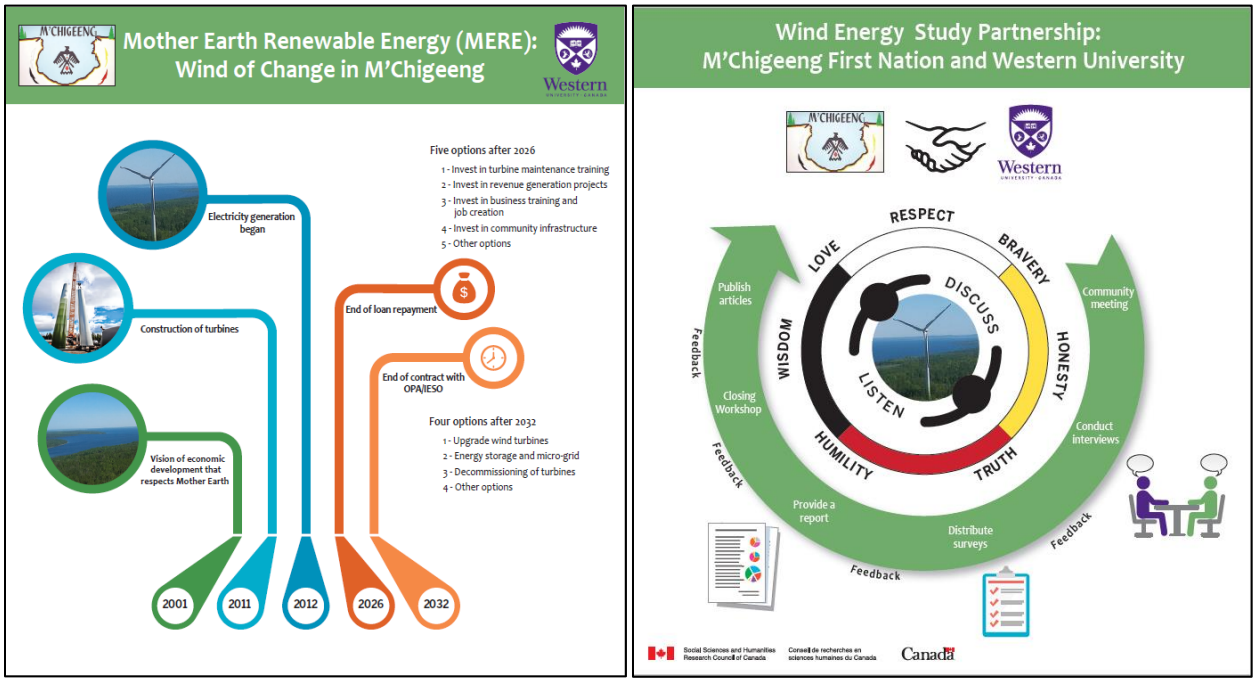


Plate 3-2. Launch event on 25 July 2019: Posters presenting the timeline of the MERE project and the research partnership



3.3.1 Interviews

3.3.1.1 Selection of interview participants

The July 2019 town hall evening provided the opportunity to recruit the first interview participants. Members willing to take part in interviews were asked to leave their contact information in a box at the entrance of the meeting room. I later reached out to these potential respondents to further explain the research process, schedule an interview, and ask them to spread the word with their family and friends in a snowball approach. This allowed me to schedule ten interviews in August 2019 and make a few contacts for the second round. During the August visit, I posted flyers containing a brief project description and my contact information at the community complex, the post office, and a local restaurant, that are well frequented spaces. During my October stay, I decided to go door-to-door on the reserve, using a map drawn by Jeff Corbiere, who pointed out the most populated areas where I could likely meet people. Despite some unexpected incidents, going door-to-door proved to be a successful approach since I was able to secure 22 additional interviews during my week-long October visit. Overall, through the 32 interviews, I have talked to:

- 28 Band members (17 female women and 13 male Band members, including one Elder, five former members of the Band Council, four current Band Office staff); and
- Four resident non-members (one woman and three men) who have no voting rights in the Band's affairs.

On a side (and sad) note, my enthusiasm led to overlook the condition of my recording device and completely lose four recordings. I was still able to include them in the analysis using my hand notes but lost some of the richness of direct quotes.

3.3.1.2 Interview analysis

Semi-structured interviews allow targeted in-depth discussions about lived experiences. Following an interview guide (see Appendices), I steered the conversations towards issues of support, perceptions of the turbines, process and planning, and outcome and benefits. I also prompted respondents on the theme of reconciliation and its connection with the MERE project and renewable energy deployment in Ontario. While some respondents had little to say on this theme, several others engaged in deep conversations around colonization, oppression, restoration, and healing, as detailed in Chapter 5.

28 interviews (32 minus the four lost ones) were transcribed verbatim by a professional and reliable transcriptionist. I then used the qualitative software NVIVO version 12 to read the transcripts line by line, code, and analyze the data. In qualitative analysis, coding refers to the identification of themes observed in the data. I drew 39 themes from the interviews, listed in the table below (Table 3-1), and used an objective criterion, i.e., the number of quotes from interview transcripts, to shortlist key topics. Counting is useful to identify patterns, which "implies something about the frequency, typicality, or even intensity of an event" (Sandelowski, 2001, p. 231). Because qualitative research is interpretive by nature, I also considered which themes would be most salient and relevant for my research questions. I determined that the first five themes in the table were also the most germane to my research focus and chose to focus in my manuscript on these. The five themes became four after merging the two communication-related themes into one, broken down into before (*ex-ante*) and after (*ex post*) turbine commissioning.

Table 3-1. List of interview themes and corresponding quotes recorded in NVivo

Themes recorded during interviews	High importance (over 100 quotes)	Moderate importance (50-100 quotes)	Low importance (under 50 quotes)
1. Ex post project communication	185		
2. Relationships with non-Indigenous people	178		
3. Ex-ante project communication	161		
4. Acceptance of wind energy	122		
5. MERE Ownership model	109		
6. Expected outcome		92	
7. MERE-related community divide, conflict		61	
8. Life in MFN		61	
9. Positive aspects		61	
10. Negative aspects		56	
11. Opposition to wind energy		54	
12. Relationships with islanders		50	
13. Intracommunity trust			49
14. Coping with negative aspects			48
15. Relationships with other Indigenous communities			41
16. Land stewardship			38
17. Motivation behind RE uptake			38
18. Length of residence			29
19. Intergenerational relationships			27
20. About acceptance of RE			26
21. Perception about turbines' fit in MFN			24
22. Economic burden			18
23. Concerns for potential impacts of WT			17
24. MERE-related community inclusiveness			16
25. “Just really want my business, just like nah”			13
26. Intracommunity divide, conflict			13
27. Intracommunity inclusiveness			13
28. NO evidence of positive aspects			13
29. Employment			11
30. No evidence of negative aspects			11
31. MERE project validation			10
32. MERE vision			10
33. About off-reserve members			7
34. About opposition to RE			4
35. Usefulness of WT			4
36. Intracommunity relationships			3
37. MERE Outcome			1
38. Concerns when WT stop spinning			1
39. Eyesore, Size of turbines			1

After compiling the interview results, I produced a PowerPoint summary (see Appendices) that I sent back to all respondents by email and post to give them the opportunity to make amendments. This approach, called member-checking, gives interview participants the opportunity to react on the findings and amend them (Baxter & Eyles, 1997; Clifford et al., 2010). Only three feedback notes were received by email and mail. One participant checked the box "These findings do not reflect my perceptions on the wind turbines in the community" but did not offer any other comment. The other two agreed with the findings and further explained their position (example on Plate 3-3). The feedback received was fully incorporated in the final analysis.

Interview participants had the opportunity to participate in a draw to win PC Optimum gift cards allowing to shop at the local grocery store, Freshmart. The Advisory Committee thought it an appropriate means to promote the newly opened store (see Plate 3-4). Having a local store with fresh produce is part of M'Chigeeng revitalization efforts. I am happy to report that I made it a point to shop there each time I was on the land.

Plate 3-3. Feedback on the interview summary received from one respondent.

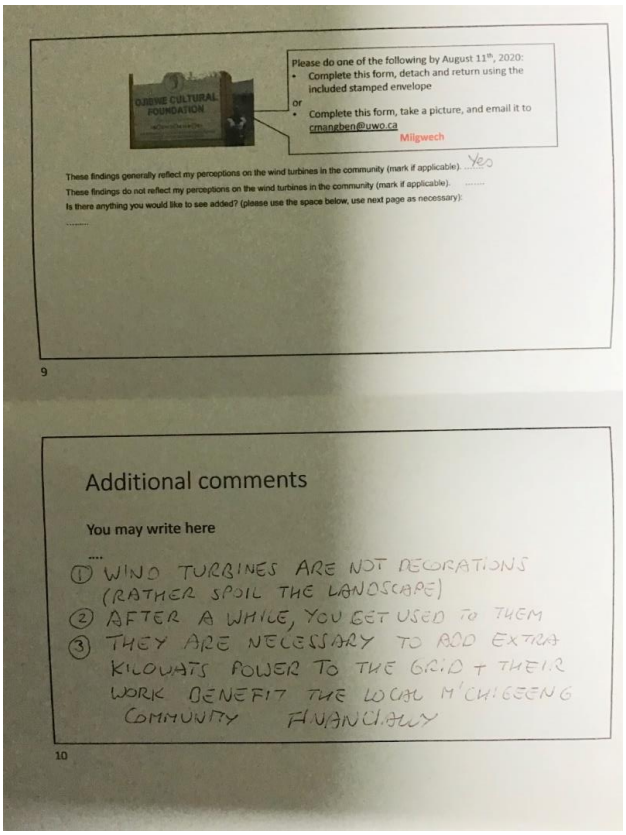


Plate 3-4. Opening of the local grocery store in June 2019

Source: https://www.mchigeeng.ca/grocery-store.html

3.3.2 Survey

3.3.2.1 Survey preparation and administration

My research methodology is therefore fundamentally qualitative, even though I made use of quantitative methods including content analysis, described earlier, and survey, introduced hereafter. Conducting a survey was not part of the initial research plan but reflects the collaborative and necessarily adaptive approach privileged in this research. A member of the Advisory Committee and HIAH Manager, Grant Taibossigai, suggested that following up the interviews with a survey would allow receiving feedback from the broader membership. We then took advantage of the survey developed for Canada and Ireland as part of the larger MOCWE[7] project and decided to adapt the survey instrument to meet the needs in M'Chigeeng.

[7] https://www.coarep.uwo.ca/studies.php

The first issue discussed was the sampled population. As indicated in Chapter 1, only about one-third of M'Chigeeng members live on-reserve and are thus likely to have lived with the MERE turbines. Considering people's moves and life transitions over time, the Committee decided to target the whole membership (on and off-reserve members) and include in the survey a question about current residence. There is however no question about prior residence during the turbine planning and construction phases. The full questionnaire presented in annex follows the framework used by the large MOCWE survey covering Ireland and Canada but was adapted to fit the context of an Indigenous community and to test some of the interview themes. For example, the survey in M'Chigeeng does not include questions about the presence of wind turbines on individual property because the MERE turbines sit on community land. Also, where the MOCWE survey asks about sources of information about the project, I replaced leaseholders, developers, and government representatives with Chief and Council, HIAH Corporation, and community meetings. In addition, M'Chigeeng survey includes an additional section about relationships that probes issues of conflict and connection to the land.

The Advisory Committee also discussed in the most appropriate compensation scheme. In the larger survey, participants entering the draw could win one of seven $100 gift cards, one in each of the seven surveyed locations. For M'Chigeeng survey, the Committee decided that participants would be eligible to win one of six gift cards. Two 200 dollars cards and four 100 dollars cards were attributed through a random draw.

The surveys were sent in three rounds via mail only (no electronic version) to the whole membership using the Band voters list. To protect members' identity, the Advisory Committee opted for an elaborated scheme, as follows. For each survey round, the contracted mailing company (Key Contact, based in London) prepared the stamped survey packages including prepaid envelopes to a business return address. The survey packages were sent to the Band Office where, following the voters list, addresses were added. The complexity of this scheme left the mailing company quite puzzled, adding to a long list of CBR-in-practice anecdotes. Of the first mailing (N=1408) which went out in March 2021, we received a low number of returns (n=83). After several inserts in the Band newsletter reminding people to complete the survey (see Plate 3-5), there were two subsequent mailings in September (N=1408) and October 2021 (N=1367).

The number of addressees changed in October after the Band Office updated the voters list. With 161 returned questionnaires, the average response rate is 11.6%.

Plate 3-5. Survey reminder inserted in the community newsletter of September 2021

3.3.2.2 Survey analysis

Though the questionnaires offered many directions of exploration, I chose to follow the structure of the qualitative analysis to verify prior findings around four main themes drawn from the interviews, namely acceptance/support, communication, ownership, and relationships. In addition, I compared the responses of on and off-reserve members, seeking to unveil a possible "reserve factor". The survey responses (n=161) were recorded into the SPSS (Statistical Package for the Social Sciences) quantitative software version 28. The survey analysis (detailed in Chapter 6) started with simple descriptive frequencies to examine possible trends in the data by residence and demographics. I then used bivariate analyses to examine associations with the primary dependent variable, the current attitude towards the turbines. This variable, linked to the question "What is

your current attitude toward the local wind project?", was measured in the survey on a five-point Likert-scale ranging from very negative to very positive.

The need for data cleaning became evident after seeing answers to two questions meant to examine the preference between various energy projects (Q46) and the choice of option after the end of the turbines lifetime (Q50). Few respondents followed the required response format, either because they had a strong statement to make or because the wording was confusing. I decided not to use Q46 in the analysis and to split Q50 into two sub-questions, the first one about extending turbines life and the second about selling the turbines.

3.4 Ethics

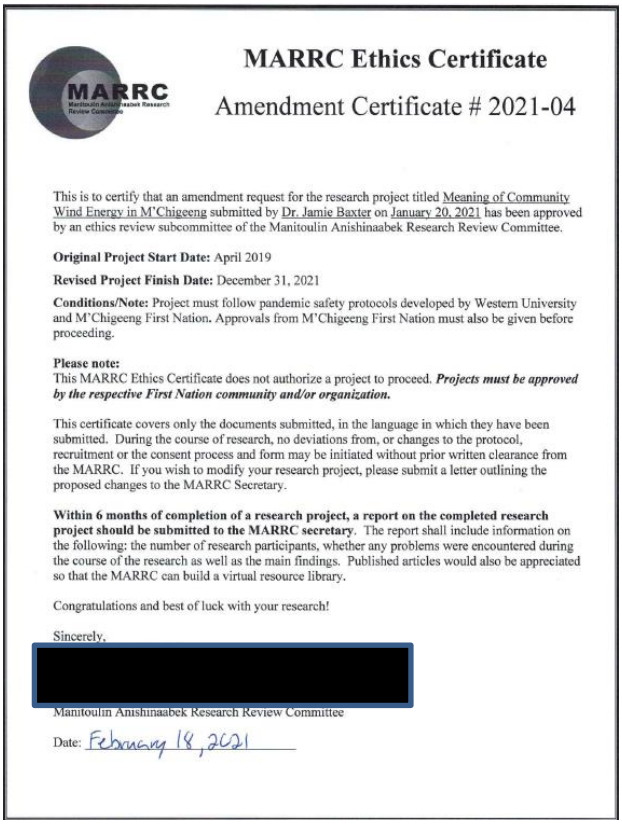
The 2018 Band Council Resolution required us to obtain approval from the Manitoulin Anishinaabek Research Review Committee (MARRC) before starting data collection. Honoring the principle of ethical research collaboration, I thus followed two tracks of ethics approval, first with MARRC, then with Western University.

3.4.1 Manitoulin Anishinaabek Research Review Committee

The Manitoulin Anishinaabek Research Review Committee, MARRC, was established in 2001 to realize the goal of ethical research on Manitoulin Island, especially health research, from a First Nations perspective (Hayward et al., 2021; Maar et al., 2007). MARRC consulted with First Nations on the Island, community members, researchers, and Elders to develop the Guidelines for Ethical Aboriginal Research (GEAR) that are now used as a screening tool for proposed research projects. In reviewing proposals, MARRC abides by two interrelated guiding principles: 1) Does the proposal respect Aboriginal customs and culture in the Manitoulin area? And 2) Does the proposal reflect the vision for culturally appropriate research on Manitoulin Island?

We received MARRC ethics approval in April 2019. The MARRC ethics review process has been a smooth one, which in my opinion can be credited to the fact that our research approach was predicated on the principles described above. A second ethics approval was requested in 2021 to account for the new BCR and revised data collection methods (see Plate 3-6).

Plate 3-6. Second ethics certificate obtained from Manitoulin Anishinaabek Research Review Committee (after project extension)



MARRC Ethics Certificate

Amendment Certificate # 2021-04

This is to certify that an amendment request for the research project titled Meaning of Community Wind Energy in M'Chigeeng submitted by Dr. Jamie Baxter on January 20, 2021 has been approved by an ethics review subcommittee of the Manitoulin Anishinaabek Research Review Committee.

Original Project Start Date: April 2019

Revised Project Finish Date: December 31, 2021

Conditions/Note: Project must follow pandemic safety protocols developed by Western University and M'Chigeeng First Nation. Approvals from M'Chigeeng First Nation must also be given before proceeding.

Please note:
This MARRC Ethics Certificate does not authorize a project to proceed. ***Projects must be approved by the respective First Nation community and/or organization.***

This certificate covers only the documents submitted, in the language in which they have been submitted. During the course of research, no deviations from, or changes to the protocol, recruitment or the consent process and form may be initiated without prior written clearance from the MARRC. If you wish to modify your research project, please submit a letter outlining the proposed changes to the MARRC Secretary.

Within 6 months of completion of a research project, a report on the completed research project should be submitted to the MARRC secretary. The report shall include information on the following: the number of research participants, whether any problems were encountered during the course of the research as well as the main findings. Published articles would also be appreciated so that the MARRC can build a virtual resource library.

Congratulations and best of luck with your research!

Sincerely,

[redacted]

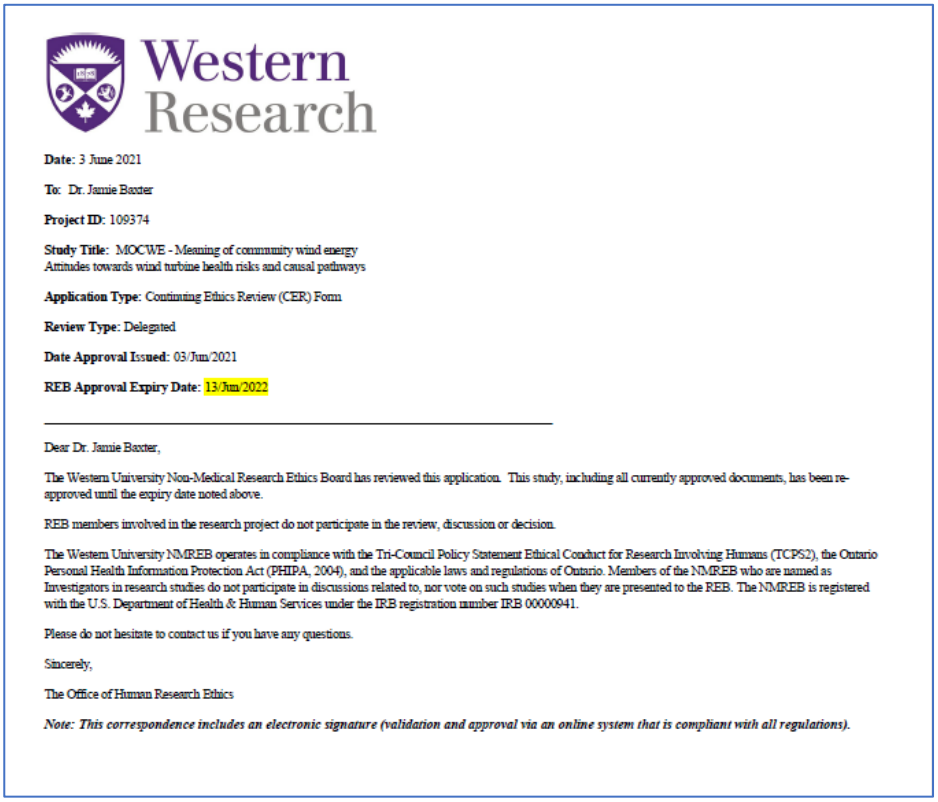
Manitoulin Anishinaabek Research Review Committee

Date: February 18, 2021

3.4.2 Western University Ethics Review

Obtaining prior approval from MARRC might have facilitated the University ethics review process and assuaged some of the common concerns related to research with Indigenous communities. There were several rounds of review due to evolutions in the project design and adoption of new data collection instruments. The last ethics certificate was obtained in June 2021 (see Plate 3-7).

Plate 3-7. Ethics certificate from Western University



Western Research

Date: 3 June 2021

To: Dr. Jamie Baxter

Project ID: 109374

Study Title: MOCWE - Meaning of community wind energy
Attitudes towards wind turbine health risks and causal pathways

Application Type: Continuing Ethics Review (CER) Form

Review Type: Delegated

Date Approval Issued: 03/Jun/2021

REB Approval Expiry Date: 13/Jun/2022

Dear Dr. Jamie Baxter,

The Western University Non-Medical Research Ethics Board has reviewed this application. This study, including all currently approved documents, has been re-approved until the expiry date noted above.

REB members involved in the research project do not participate in the review, discussion or decision.

The Western University NMREB operates in compliance with the Tri-Council Policy Statement Ethical Conduct for Research Involving Humans (TCPS2), the Ontario Personal Health Information Protection Act (PHIPA, 2004), and the applicable laws and regulations of Ontario. Members of the NMREB who are named as Investigators in research studies do not participate in discussions related to, nor vote on such studies when they are presented to the REB. The NMREB is registered with the U.S. Department of Health & Human Services under the IRB registration number IRB 00000941.

Please do not hesitate to contact us if you have any questions.

Sincerely,

The Office of Human Research Ethics

Note: This correspondence includes an electronic signature (validation and approval via an online system that is compliant with all regulations).

3.4.3 My place, space, and ethics

In articulating my positionality as a Black African researcher working on Indigenous issues in Canada, I am taking to heart Leanne Simpson's powerful observation that is itself prompted by Audre Lorde's (Bowleg, 2021, p. 237) provocative statement that "the master's tools will never dismantle the master's house". This observation suitably describes my position on decolonizing methodologies and restorative justice.

> *I am interested in a different question. I am not so concerned with how we dismantle the master's house, that is, which sets of theories we use to critique colonialism; but I am very concerned with how we (re)build our own house, or our own houses. I have spent enough time taking down the master's house and now I want most of my energy to go into visioning and building our new house. (Simpson, 2011, p. 32)*

A small community wind project prompted my PhD project, but the rebuilding exercise hinted at by Leanne Simpson is what hooked me to it. I embarked on this academic and human adventure as a Black African privileged female from a former French colony, trained as a chemical engineer, and returning to academia to study social science after two decades of professional experience. I acknowledge that, being formatted in Western institutions, I am inevitably carrying certain biases and thought patterns. I am also aware that my atypical position opened some spaces to me while closing others. On the one hand, being neither Indigenous nor White may have granted me the benefits of quasi-neutrality in my community interactions. In fact, at the beginning of one interview, a participant made the following remark: "*You and I are the same, they* … (the participant then mimicked a wrist slap on the hand)". I immediately understood the point made: they, White people, have exerted violence on us, Indigenous and Black peoples through colonization. Being able to understand the gesture without words and relate to the participant did comfort me in thinking that in many ways, I was in fact the same as my respondents. On the other hand, I have often thought that my position may have compounded the challenges faced by an outsider conducting Indigenous research, yet more so in academic circles. I have observed myself being observed with skepticism and curiosity each time I stepped into a room full of Indigenous scholars. In those instances, I could not help but imagine some of the mind dialogues: "Oh so now, not only the settlers but also Black people study us; we are really being researched to death!".

A lot has been written about the challenges and opportunities of cross-cultural research and Indigenous research conducted by non-Indigenous academics. An obvious challenge lies in the ability of non-Indigenous researchers to perceive and interpret Indigenous ways of knowing (Davis, 2010). When I embarked on my PhD research, I tried to conduct the research in culturally sensitive ways, promoting respect and including local concerns. I don't claim to have followed any Indigenous methodology, neither experiential nor ethnographic. However, I strove to follow one recommendation about "attention to ethics and reflexivity regarding access to and privileging of knowledge, selection of methodological tools, and presentation of perspectives possessing physical, psychological, and sociopolitical consequences" (Snow et al., 2016, p. 360). Through my community interactions, I was mindful of the power relations artificially constructed by resource availability, including the ability to mobilize knowledge a certain way. Recognizing that "indigenous participants and communities own and serve as stewards for all data and the

researchers are only borrowing these data for specific uses under guidance from shared decisions with participants" (Snow et al., 2016, p. 365) is easier said than done, considering the academic pressure to show results through published works. Hence, acknowledging the exploitative nature of mainstream research and geography's historical complicity in colonialism (Denzin, 2008) was the first step of my decolonizing approach. I say first step because I am aware that colonization has been so influential in our own lives and minds that we can only aspire to do research "from an anti-oppressive and decolonizing stance while realizing the (im)possibilities and complexities of a truly decolonising endeavour" (Zanotti & Palomino-Schalscha, 2016, p. 142).

In conclusion, I take away from my program a most rewarding human experience. Engaging in this community-based research has been about trying to reconcile concepts, people, and communities, contributing to building bridges and carve a space that satisfies my academic priorities and human aspirations. As rightfully put by Morton Ninomiya and Pollock (2017, p. 35), "while conflicts and tensions are inevitable in CBR, it is how these uncomfortable moments are addressed that matters". Thankfully, no one was harmed in those tense moments.

Chapter 4

4 New discourses on energy transition as an opportunity for reconciliation? Analyzing Indigenous and non-Indigenous communications in media and policy documents

To cite this article: Mang-Benza, C., Baxter, J., & Fullerton, R. S. (2021). New Discourses on Energy Transition as an Opportunity for Reconciliation? Analyzing Indigenous and Non-Indigenous Communications in Media and Policy Documents. International Indigenous Policy Journal, 12(2), 1–27. https://doi.org/10.18584/iipj.2021.12.2.8641

Abstract

This paper examines the transition to renewable energy as a locus of reconciliation. Using content and discourse analysis of policy documents, white papers, and news media, we explore renewable energy and reconciliation issues discussed by Indigenous and non-Indigenous Canadians before and from 2015, year of the release of the TRC report and the Paris Agreement on climate change. We found that non-Indigenous voices are more prominent in those communications, which signals a risk of enduring colonial hegemony, and noted a three-fold expansion of those discussions from 2015. We argue that the energy transition may allow to engage in a societal transformation and renegotiate the relationship between Indigenous and non- Indigenous Canadians, reducing carbon emissions while dismantling colonial structures.

4.1 Introduction

In 2017, the Canadian federal government launched Generation Energy, a country-wide public consultation on the future of the energy sector that involved interactions with over 380,000 Canadians. The government website shows among the conclusions the following statement: “The energy transition is an opportunity for reconciliation with Indigenous peoples” (NRCAN, 2018). The splicing of energy transition and reconciliation prompted us to explore how a new discourse might be developing along two national imperatives. The Canadian federal government embraced the reconciliation imperative as a pathway for addressing colonial legacies, recognizing that colonization prevented Indigenous people from self-determination on their own lands (Adelson, 2005; Kekinusuqs, 2005). The Truth and Reconciliation Commission of Canada, TRC, established to address the legacy of Indian Residential Schools, defines reconciliation as “establishing and maintaining a mutually respectful relationship between Aboriginal and non-Aboriginal peoples” (Truth and Reconciliation Commission of Canada, 2015b, p. 6). The TRC affirms that centuries of colonization severely damaged that relationship and brought adverse social, political, economic, and ecological impacts on Indigenous communities.

The second national imperative is to transition to less carbon-intensive economic activities, especially in the energy sector. An energy transition involves structural changes aiming at “reshaping not only the technologies and economics of energy but also physical and social geographies, social meanings, and the political organization of energy production, distribution, and consumption” (Meadowcroft, 2009, p. 324). According to the Generation Energy report, Canada’s energy transition follows two tracks. The first track aims to make the production, distribution, and consumption of energy clean and efficient while the second track is about boosting low-carbon technologies in the oil and gas sector (Generation Energy Council, 2018). The report acknowledges the complexity of navigating this dual-track transition, yet states that it will “involve many and varied energy projects nationwide, and these offer new opportunities to build real, durable partnerships with Indigenous and rural communities by investing directly in their energy future” (Generation Energy Council, 2018, p. 7). For the sake of scoping, we focus specifically on the first track, looking at renewable energy production in the current transition and how it connects to reconciliation. We do so through the lens of public communication.

In their work about decolonization, McFarlane and Schabus (2017) warn that, when the Canadian government and mainstream communication channels acknowledge colonial harms, they do so with the urge to move on and forget. This paper probes whether and to what extent there is a melding of discourses of energy transition and reconciliation in public policy documents and select news media – two influential and powerful sources for the propagation of discourses. In this sense, discourse is defined as "an ensemble of ideas, concepts and categories through which meaning is given to social and physical phenomena, and which is produced and reproduced through an identifiable set of practices" (Hajer & Versteeg, 2005, p. 175). We specifically address two questions: (1) In what ways do Indigenous and non-Indigenous public sources communicate about the energy transition and reconciliation? And, (2) How have their communications evolved over time, especially in relation to two landmark moments of 2015: the Paris Agreement on Climate Change and the Truth and Reconciliation Commission final report? By comparing published texts from sample news media, government and non-governmental organizations, we outline how Indigenous and non-Indigenous voices have been speaking about reconciliation and energy transition in the 2007-2018 period and consider whether these two groups have been speaking the same language. By bringing insights from Indigenous studies into the energy transition literature, material that usually lacks attention to colonial impacts, our work offers a unique contribution to research. This exploration is also relevant for Indigenous and non-Indigenous policy observers as the energy transition is enshrined in federal and provincial governments' plans about carbon pricing, oil and gas, nuclear waste, and renewable energy development. Finally, we hope some of the paper's insights might be transferable to other countries bearing a history of settler colonialism. In the next section, we provide some context around reconciliation and energy transition to illuminate the ways in which the latter connects to the former. To that end, we begin by describing how colonization damaged the relationship between Indigenous people and settlers and how Indigenous and non-Indigenous Canadians have been addressing colonial legacies ever since. Next, we introduce how scholars attending to energy and Indigenous issues engage with the involvement of Indigenous communities in renewable energy. Then, subsequent sections outline the analytical approach, summarize the findings, and offer a fulsome discussion.

4.2 Context around reconciliation and energy transition in Canada

4.2.1 The problem - colonization

Colonization is the root cause of the broken relationship between Indigenous and non-Indigenous people and this has social, political, economic, and ecological impacts on contemporary Canada (Adelson, 2005). Between the England-commissioned expedition of John Cabot in 1497 and that of France's Jacques Cartier in 1541, the mandate to identify a route to the Pacific Ocean morphed into a colonization project (Allaire, 2019; Hunter, 2019). Colonization involves movement across geographical and/or national space and transpose a country's institutions to establish domination in a foreign site (Veracini, 2011). Settler colonization is a distinct form of colonization in that, in order to turn the foreign site into a new home, settlers constrain, erase, and extinguish the former inhabitants (Veracini, 2011). Settler colonization "covers its tracks" (Veracini, 2011, p. 3) by engineering structures of dispossession, which in Canada, ranged from legislation - for example, the 1857 Gradual Civilization Act and the consolidated 1876 Indian Act - to assimilation projects such as the Indian Residential Schools (Tobias & Richmond, 2014). The first settlers made extensive and intentional use of binary language to justify, establish, and rationalize a society of deserving "haves" and undeserving "have-nots" (Harding, 2006). In addition, they routinely used racial semantics that condoned the exclusion of Indigenous voices from public life (The National Inquiry into Missing and Murdered Indigenous Women and Girls, 2019a). The vision of the Two Row Wampum belts, used as early as 1613 in treaty signing between Indigenous and European governments to symbolize interdependence and independence of both people sharing land and resources, quickly faded away (Hallenbeck, 2015). The once sovereign Indigenous nations were methodically pushed to the margins of society (Alfred, 2015).

4.2.2 Addressing colonial legacies: resurgence and reconciliation

There have been numerous attempts by Indigenous people and settlers to address colonial wrongs, attempts broadly encapsulated under the terms "resurgence" and "reconciliation." Resurgence refers to Indigenous people's efforts to assert their identities and reclaim their territories while reconciliation is perceived as a settler initiative (Asch et al., 2018). The former term holds a deep history as Indigenous peoples did not passively witness the deployment of egregious colonial

policies (Canning, 2018). For example, between the 1870s and the 1930s, Indigenous leaders mobilized and engaged in discussions with the federal administration, requesting that the British Crown honor existing treaties (Dyck & Sadik, 2016; Wilmer, 1993). In the 1940s, more Indigenous organizations, such as the North American Indian Brotherhood, entered the public sphere demanding political recognition (Dyck & Sadik, 2016). In the 1960s and 1970s, Indigenous activists voiced narratives of autonomy and self-determination around concerns for health and well-being, land rights, and environmental degradation (Manuel & Derrickson, 2017; Wilmer, 1993). In the 1980s, Indigenous people in Canada used the patriation of the Constitution as an opportunity to safeguard their traditional land titles by enshrining them in what became Section 35 of the Constitution Act (Green, 2003). Through Section 35, Canada recognizes the existence of organized Indigenous societies and practices prior to settlers' arrival, thus unsettling the colonial project of constraint and erasure (Stanton, 2017).

As highly visible acts of resurgence multiplied, the pressure mounted on the colonial establishment to publicly consider the root causes of the broken relationship between Indigenous and non-Indigenous people in Canada. The wrongful incarceration of a Mi'kmaq youth from the province of Nova Scotia led to the appointment in 1986 of the Royal Commission on the Donald Marshall Jr. Prosecution, which exposed the systemic racism plaguing the criminal justice system (Rymhs, 2006). In 1990, a real estate development proposal on land claimed by the Kahnesatake reserve provoked the ire of Mohawk residents and escalated into what became the Oka Crisis (Marshall, 2019). Later in 1990, another shockwave ran across the country when, for the first time, an Indigenous leader, Phil Fontaine, made stunning revelations about Indian Residential School abuses (Nagy, 2014). His public declaration in the wake of the Oka Crisis formed the substrate of the Royal Commission on Aboriginal Peoples (RCAP), tasked to examine the relationships between Indigenous people and the Canadian government and society (Royal Commission on Aboriginal Peoples, 1996).

The voluminous RCAP report did chip at the colonial edifice, outlining a pathway to improve the broken relationship, including by addressing one of the most damaging colonial institutions, the Indian Residential School system. In parallel to the RCAP public hearings, Indian Residential School survivors launched class action lawsuits supported by the newly elected National Chief of the Assembly of First Nations, Phil Fontaine (Stanton, 2011). In 2007, they reached the largest

class action settlement in national history, the Indian Indian Residential Schools Settlement Agreement (IRSSA), which set aside funding for the establishment of a Truth and Reconciliation Commission, TRC (Nagy, 2014; Stanton, 2011). The federal government set up the TRC with a five-year mandate to compile the accounts of Indian Residential School survivors into a public record. Canada thus chose truth-telling as a central feature of its investigation of colonial injustices and reconciliation as the ultimate goal of truth-telling.

Many aspects of the settler-led reconciliation project are contested, from the concept as a legitimate means to address colonial legacies, to the process and outcome. Opposed to the idea of a process framed by colonial structures, some Indigenous authors call reconciliation "the invitation from Canada to share in the spoils of our nations' subjugation and dispossession", a "false promise", and an act of recolonization "telling Indigenous children that the problem of history is fixed" (McFarlane & Schabus, 2017, p. 11). Coulthard (2010b, p. 6) contends that the political, legal, and economic approaches taken by the state to accommodate Indigenous people always bear the risk of reproducing colonial structures by reconciling "Indigenous claims to nationhood with Crown sovereignty…in some form of renewed relationship". That reconciliation invites "the dispossessed to see themselves solely as contemporary people, bearing historical (but not contemporary) wounds from misguided state policy that is now remediated by recognition and apology" (Green, 2016, p. 327). Recalling the checkered history of commissions meant to address Indigenous issues, Rymhs (2006, p. 107) might argue the TRC process, like the Marshall Inquiry or RCAP, can be viewedas a "substitute for action" or "discursive balm". Stanton (2011, p. 4) echoes that perspective, stating "were it not for the enormous financial cost to the government of continuing to defend against the class actions, the TRC would not exist in Canada."

The activist Arthur Manuel (2017, p. 200) emphasizes restitution of land and resources as the central outcome of true reconciliation, arguing that, "anything less than recognizing and affirming Aboriginal rights and treaty rights on the ground is not to seek reconciliation, but surrender". King and Pasternak (2018) similarly doubt the effectiveness of legal instruments to bring an acceptable outcome as they analyze the Indigenous Rights, Recognition and Implementation Framework announced in early 2018 by the Liberal federal government (King & Pasternak, 2018). They note that the outcome of the legislative transformation intended under the framework remains unclear,

including the fate of the Indian Act and the treatment of Indigenous titles and treaties (King & Pasternak, 2018).

Other authors are less adamantly opposed to reconciliation, though not oblivious to its inherent risks. Asch and Borrows (2018) acknowledge the risks of perpetuating colonial patterns in a settler-led initiative, yet they envision the possibilities for real improvements. Likewise, Quinn (2011) commends the acknowledgment of wrongs made possible by the TRC yet doubts the inclination of the settler apparatus to substantially address colonial legacies. Some scholars promote a more individual approach to reconciliation. Observing that none of the TRC Calls to Action is addressed to the general public, Ferrara (2015, p. 87) posits that reconciliation should start with individuals rather than institutions, as a reflexive exercise whereby one would replace colonial dehumanization with "empathic rehumanization." Finegan (2018, p. 20) refers to such an exercise as "a humbling act", one that asks settlers to "turn a critical eye on themselves and … relinquish their privilege." Highlighting the inherent challenge to this idea, Chambers (2011, p. 260) sees reconciliation as a "dangerous opportunity to settler peoples" as it compels them genuinely to examine their "complicity in maintaining the status quo".

While reconciliation is a contested idea, it seems to be taking hold in public narratives. Varied assessments transpire about reconciliation across economic sectors, including in the energy sector, site of recurrent conflicts between Indigenous communities and mainstream energy stakeholders over costs and benefits of extraction activities (McCreary & Milligan, 2014). The 2017 Generation Energy report states that the country wants to "ensure that Indigenous communities benefit more directly from energy development" and that "this transition is an opportunity for Indigenous Peoples and communities to take their place at the table and help drive the evolution of Canada's energy sector" (Generation Energy Council, 2018, p. 8). We are aware that colonialism in the energy sector has been challenged in Canada through several court cases when energy initiatives threatened rights to traditional territories. Unlike the fossil fuel industry, the renewable energy sector is increasingly appealing to Indigenous communities who have a growing presence and influence therein (Campbell, 2011; Cook et al., 2017; Stefanelli et al., 2019). It is to this category of energy projects that we turn next, as we examine the academic literature on energy and Indigenous people.

4.2.3 Energy transition, Indigenous people, and reconciliation

While the Generation Energy report links reconciliation with the energy transition, it is not clear which stakeholders are adopting such terminology. A few authors attend to the motivations of Indigenous communities engaging in renewable energy. Dreveskracht (2011) notes that renewable energy projects often align with Indigenous values and ways of living on the land but are also opportunities to generate revenues. Lowan-Trudeau (2017) and Ozog (2012) identify aspirations of sovereignty, self-determination, and financial autonomy. Karanasios and Parker (2018) argue that the Indigenous communities, relying on federal financial transfers and land-based employment, are increasingly challenged by the combination of growing population needs and static federal assistance. This motivates Indigenous nations to engage on their own or with external partners in profit-making ventures, including renewable energy production. Karanasios and Parker (2018) also note that communities engaged in renewable energy feel the tension between sustainable land stewardship and economic development, juggling the urgent concerns of the present generation with the welfare of future generations. Karanasios (2018, p. 3) reports a quote from Shawn Batise, executive director of the Wabun Tribal Council, who values renewable energy projects "since the revenue generated provides "a regular flow of income over time, rather than mining, which is over once the ore is depleted"

Some authors observe the external and internal barriers constraining Indigenous energy projects. Krupa et al. (Krupa, 2012a; Krupa et al., 2015) assert that, with perpetuating patterns of colonial domination, Indigenous communities must overcome rigid bureaucracy, financial limitations, and even the legacy of mistrust between Indigenous and non-Indigenous stakeholders. Rodman (2013) argues that Indigenous leaders initiating renewable energy projects often face internal resistance when their communities oppose the idea of participating in the Western economy, even in activities touted as ecological, due to the colonial history of dispossession.

There are only a handful of authors to date who connect renewable energy and reconciliation. Jaffar (2015) offers a comparison between narratives of environmentalists and those of Indigenous actors. She reports a quote from a former Band Chief, Judith Sayers of the Hupacasath First Nation, who "described sustainable energy development as a game changer for First nations" (Jaffar, 2015, p. 62). Jaffar however notes the tension resulting from enduring colonial views among environmentalists who often fall in the trap of the "ecological Indian" storyline. Jaffar

concludes that a strengthened alliance between the two groups might propel reconciliation, provided those colonial views are addressed. In their review of Indigenous participation in renewable energy, Stefanelli and colleagues (2019) posit that the low-carbon transition provides a dual opportunity for Canada to decarbonize and for Indigenous communities to promote economic development, but stress the risk of perpetuating colonial injustices.

Despite those analyses on Indigenous communities' involvement in renewable energy, the energy transition literature has not yet integrated the dimensions of colonization in studies of energy systems. This emerging body of literature examines structural changes in energy systems over time. It is organized around three main schools of thought: the technico-economic school stemming from economics and engineering, the socio-technico approach that considers energy as a social phenomenon, and the socio-political school that draws on political ecology and political science (Cherp & Jewell, 2011). To our knowledge, none of these approaches pays explicit attention to Indigenous worldviews. As suggested by Sovacool (2014, p. 14), energy scholars should be wary of the subtle ways "discourses of energy and climate may erase indigenous or alternative forms of knowledge, or hide the particular history or assumptions underlying them." Prompted by the gap in the transition literature and the conclusions of the 2017 Generation Energy consultation, we examined Indigenous and non-Indigenous media and policy communication about renewable energy and reconciliation to understand the evenness (or not) of the uptake of reconciliation discourses in this domain and pinpoint areas of convergence and divergence. Any probe into the energy transition in Canada requires a close look at the provinces since they have primary jurisdiction over their energy systems. While we recognize that one province is not representative of the whole country, we focus on Ontario that is not only a leader in the energy sector, but also the site of the country's first Indian Residential School and now home to the Canada's largest population of First Nations and Métis citizens (Carney, 1995; StatCan, 2016b).

4.3 Analytical approach

We used content and discourse analysis to explore publicly available statements about renewable energy and reconciliation in a selection of media, policy documents, and press releases, from both Indigenous and non-Indigenous sources. We acknowledge that comparing opinion pieces,

columns, and news stories with policy papers is challenging because the intents of those documents are different. Nonetheless, together these documents constitute a coherent ensemble of narratives which allow for rich connections and critical interdisciplinary textual analyses drawing from geography, media studies, history, and First Nations Studies.

We also acknowledge that Indigenous authors may publish in mainstream newspapers and that non-Indigenous writers may contribute to Indigenous news pieces. However, we are focused on the origin of the sources more so than the authors, recognizing that readership is largely source dependent. That is, we expect that Indigenous readers are the main consumers of Indigenous media and non-Indigenous peoples are more likely to consume mainstream media pieces. Though the lines are permeable, the social reproduction of knowledge through discourse is likely to influence audiences through such alignments. In a settler society, mainstream news media and public policy statements tend to sanction power asymmetry and convey certain representations of the colonized group in their writings (Fullerton & Patterson, 2008; Harding, 2006). Indigenous sources would generally counter those representations and offer counter narratives on issues of public interest.

Combining content and discourse analysis provides "a critical contrast in representing quantitative and qualitative approaches to the study of textual data" (Tonkiss, 2004, p. 368). It is useful to elucidate the complexity of meanings in language and enrich the exploration of social constructs (Feltham-King & Macleod, 2016). Content analysis involves counting words or lines and analyzing frequencies of terms, allowing for comparison of texts and some level of generalization (Tonkiss, 2004). Discourse analysis is an interpretative study of language in-use, which "puts emphasis on the communications through which knowledge is exchanged" and holds the "capacity to illuminate the central role of language in politics" (Hajer & Versteeg, 2005, pp. 176–177). Speaking to the appeal of discourse analysis in sustainability research, Hajer and Versteeg (2005, p. 177) add that "the fact that actors debate nature in shared terms does not mean that they understand each other". We posit the same is true here in Canada: just because Indigenous and non-Indigenous people debate using shared vocabulary does not mean they understand each other.

We defined our analysis timeframe to account for significant events related to renewable energy and reconciliation in the country and in Ontario specifically. We selected the window of 01 January 2007 to 30 June 2018, a period that starts two years before the Ontario 2009 Green

Energy and Green Economy Act (GEGEA), includes the 2015 TRC's Final Report and Paris Agreement on climate change, and ends two years after the 2016 Pan-Canadian Framework on Clean Growth and Climate Change. The 2009 GEGEA, now repealed, was a significant piece of legislation because it boosted renewable energy production in Ontario and provided premium electricity tariffs to projects with Indigenous participation. The 2016 Pan-Canadian Framework, statement of national ambition on climate change, was adopted alongside representatives of First Nations, Inuit Peoples, and Métis Groups as one of the post-TRC symbols of Canada's commitment to engage with Indigenous Peoples in the low-carbon transition and natural resource management. Though the impacts of the TRC and the Paris Agreement will undoubtedly need several years to be fully understood, our goal is to take stock of the current trajectory.

In order to capture what Indigenous and non-Indigenous sources say about renewable energy and reconciliation, we looked into news media, reports, and documents from political institutions. Using the Indigenous Studies websites of the University of British Columbia (n.d.) and Dalhousie University of Nova Scotia (n.d.),we identified Indigenous newspapers with both national (e.g., First Nations Drum, Windspeaker) and provincial/regional coverage (e.g. Alberta Sweetgrass, Saskatchewan Sage, Wawatay News covering Ontario First Nations, Nunatsiaq News in Nunavut territory). We also gathered documents from three political organizations, namely The Assembly of First Nations, Inuit Tapiriit Kanatami, and the Chiefs of Ontario. We used these organizations as proxies for Indigenous policy makers because they represent a large number of Indigenous communities and take part in political debates. The Assembly of First Nations (AFN) represents most First Nation communities in Canada (J. P. White et al., 2012); Inuit Tapiriit Kanatami (ITK) advances the rights of Inuit communities, while the Chiefs of Ontario advocate for issues relevant to First Nations in the province. We used the corporate press releases from their websites as statements of their political stances. We did not include any Métis organizations because there was no sufficient relevant data at the time of analysis.

Among non-Indigenous sources, we examined four categories of documents: news media articles, reports and position papers, policy papers, and bills. We collected news media pieces from the "Canadian major dailies" database to retrieve newspapers from as many provinces as possible. The reports and position papers were taken from the 97 submissions to the Generation Energy consultation (https://www.nrcan.gc.ca/energy/resources/20243). We discarded submissions

without reference to Indigenous communities and those that did not focus on renewable energy. Policy papers came from the federal and provincial (Ontario) governments and Bills from the Legislative Assembly of Ontario. We selected policy documents and Bills with a direct relation to energy policy.

We searched the website of each Indigenous source using the following strings: "renewable energy", "clean energy", and "reconciliation". We added the terms "Indigenous OR Aboriginal" in searching Non-Indigenous news media. We also used French equivalent terms: "autochtone" AND "énergie renouvelable", and "énergie" AND "réconciliation". Our final data set is described below and presented in more detail in Table 4-1.

Indigenous sources:

- News media pieces: n=38
- Corporate press releases: n=123

Non-Indigenous sources

- National newspapers: n=22
- Reports and position papers: n=18
- Policy papers: n=8
- Bills: n=3

Table 4-1 Overview of documents included in the data set

	Indigenous sources		**Non-Indigenous sources**			
Category	Corporate news releases	Newspaper articles	Country-wide: government	Country wide: submissions to Generation Energy	Country-wide: newspaper articles	Ontario: Bills
Examples (include ref)	Assembly of First Nations. (2017). Assembly of First Nations National Chief Perry Bellegarde says First Nations	Ball, D. (2014, January 1). Harper's B.C. energy envoy urges more Aboriginal consultatio n.	Government of Canada. (2017). Pan-Canadian Framework on Clean Growth and Climate Change, First Annual	Clean Energy Canada. (2016). A Canadian Opportunity : Tackling climate change by switching to clean power.	Barretto, J. (2018, January 1). How Alberta achieved Canada's lowest renewable-electricity prices. *The*	2016 Climate Change Mitigatio n and Low-Carbon Economy Act

	Must be Fully Involved in the Canadian Council of Ministers of the Environment.	*Windspeaker*.	Synthesis Report on the Status of Implementation. Government of Ontario. (2013). *Achieving Balance - Ontario's Long-Term Energy Plan* (No. ISBN 978-1-4606-3188-1). Retrieved from http://www.energy.gov.on.ca/en/files/2014/10/LTEP_2013_English_WEB.pdf		*Globe and Mail*.	
Number of documents	n=123	n=38	n=8	n=18	n=22	n=3

4.4 Findings

4.4.1 Content analysis

Based on a first reading of the documents, we derived the themes of autonomy, inclusion, exclusion, and economic development. We then reviewed each document line by line and inductively added emerging themes using the NVivo software (version 12). At the end of the analysis, we had a list of six main themes, 21 sub-themes, and 1501 sections of text (hereafter referred to as statements) coded under the various themes. Table 4-2 displays the occurrence by period and source of the various themes namely inclusion, dependency, representations of Indigenous assets, exclusion, autonomy, and Indigenous people as after-thought. The theme *Inclusion* points to various ways of bringing together Indigenous and non-Indigenous Canadians,

including through *energy development*, *climate change*, *economic development*, *land access*, and *cultural exchange*. Statements of dependency describe *Indigenous people as needing support*, as *vulnerable people*, and even as *liabilities for Canada* in energy development. *Representations of Indigenous assets* depict Indigenous Canadians as *political voices*, *business partners*, *holders of valuable knowledge*, *stewards of the land*, *workforc*e, and *political stooges*. The theme of *exclusion* refers either to a language of opposition posing Indigenous and non-Indigenous Canadians as antagonists, or a language of negation that disregards any difference between the two, casting the colonial legacy into oblivion. *Autonomy* is about issues of *land* and *economic development*. Finally, we attributed the theme of *Indigenous people as after-thought* to statements based on either the position of a mention to Indigenous people, e.g., at the end of a paragraph, or the apparent importance of a particular mention.

Table 4-2. Distribution of themes between Indigenous and non-Indigenous sources before and after the TRC report.

Themes	**Number of statements per theme**	**Pre-TRC (2009-2014)**		**Post-TRC (2015-2018)**		**Ratios**	
		Indigenous sources (%)	Non-Indigenous sources (%)	Indigenous sources (%)	Non-Indigenous sources (%)	Post/pre TRC	Total non-Indigenous statements /Total Indigenous statements
Inclusion	484	8%	9%	29%	54%	4.8	1.7
Dependency	291	9%	15%	20%	56%	3.2	2.4
Representations of Indigenous' assets	265	13%	12%	26%	49%	3.0	1.6
Exclusion	258	16%	23%	31%	30%	1.6	1.2
Autonomy	161	11%	19%	32%	39%	2.4	1.3
Indigenous Peoples as after-thought	42	0%	33%	5%	62%	2.0	20.0
Total number of coded statements	**1501**	**159**	**224**	**401**	**717**	**2.9**	**1.7**

Note: Percentages pertain to the themes in each row

The post/pre TRC ratio is an indicator of the expansion of those themes before and from 2015. The non-Indigenous/Indigenous ratio indicates the number of statements from non-Indigenous sources relative to Indigenous sources under each theme. Table 4-3 presents the 21 sub-themes composing the six main themes. As visual illustrations of our findings, Figure 4-1 compares the occurrence of the six themes in Indigenous and non-Indigenous sources while Figure 4-2 illustrates the evolution of those themes before and after 2015.

Table 4-3 Distribution of sub-themes under each theme over the study period 2007-2018

Main themes	**Inclusion**	**Dependency**	**Representations of Indigenous people**	**Exclusion**	**Autonomy**
Sub-themes	Inclusion through energy (48%)	Indigenous Peoples need support (53%)	Indigenous peoples as political voice (34%)	Discourse of opposition, separation (41%)	Autonomy through land (44%)
	Together against climate change (18%)	Indigenous Peoples are vulnerable (43%)	Indigenous peoples as business partners (28%)	Opposition related to energy issues (37%)	Autonomy through economic development (40%)
	Meaning of reconciliation (18%)	Indigenous peoples as liabilities (4%)	Indigenous knowledge as valuable for Canada (16%)	Discourse of negation (22%)	Autonomy through equity (16%)
	Inclusion through economic development (11%)		Indigenous people as stewards of the land (15%)		
	Inclusion through land use (4%)		Indigenous peoples as workforce (5%)		
	Inclusion through cultural exchange (1%)		Indigenous peoples as political stooges (2%)		
The theme Indigenous Peoples as after-thought has no sub-theme					

Figure 4-1 Comparison of themes in Indigenous and non-Indigenous sources

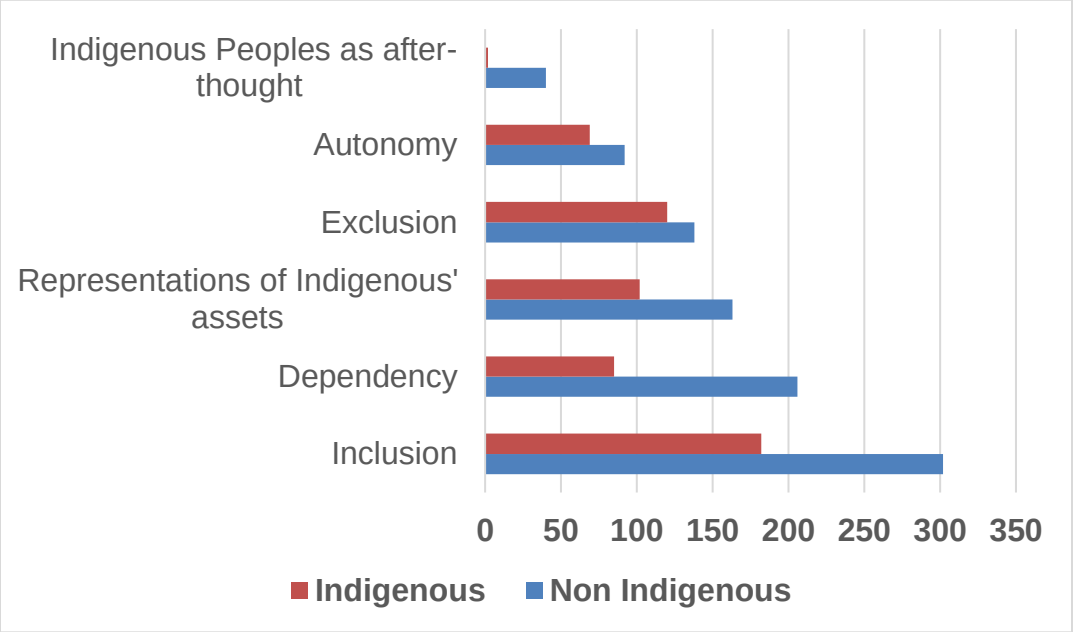
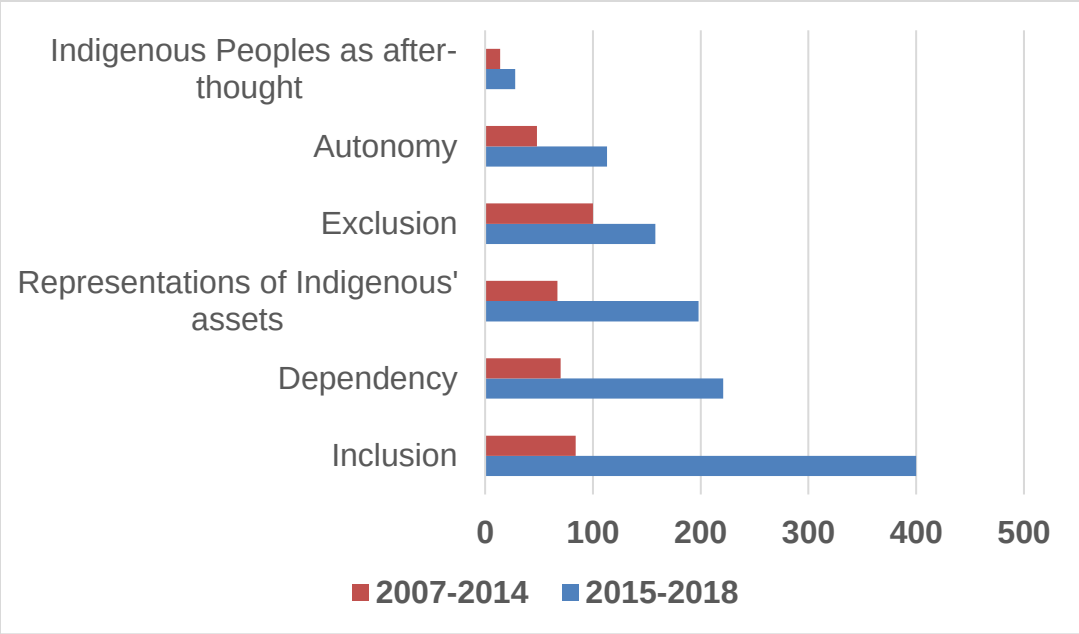


Figure 4-2 Occurrence of themes before and after 2015



Temporally, Table 4-2 and Figure 4-2 show that all themes have intensified post TRC, while at the extremes, the theme of *inclusion* has expanded the most (factor of 4.8) while the theme of *exclusion* has expanded the least (ratio of 1.6). While the move away from *exclusion* towards *inclusion* suggests an improvement of relationships, other aspects point to serious disconnects.

Non-Indigenous voices dominate all themes, an artefact of the data collection strategies and a reflection of the fact that non-Indigenous media are ubiquitous and that Indigenous voices have historically been absent and continue to be underrepresented in mainstream media.

4.4.2 Discourse analysis

Now we provide a qualitative analysis of each theme, navigating between types of document to show how the same themes are reproduced in various public spaces and how those spaces echo and respond to each other.

4.4.2.1 Inclusion

This is by far the most prominent theme, with 484 supporting statements, originating mainly from non-Indigenous sources. The theme expanded almost 4-fold after the TRC, which suggests that the settler sources are increasingly diffusing messages about energy development in Indigenous communities. Table 4-3 shows that, out of the six sub-themes pertaining to inclusion, the three most recurring are *inclusion through energy*, *meanings of reconciliation*, and *together against climate change*. The nuances in the statements also matter: Indigenous and non-Indigenous sources do not speak to the same themes in the same way nor for the same reasons. For example, in the following statement coded under the theme *inclusion through energy*, AFN Chief Bellegarde speaks to full involvement of Indigenous people as essential for meaningful reforms in energy decision-making processes. This view aligns with the resurgence approach that challenges colonial structures.

> *National Chief Bellegarde also urged Premiers to ensure First Nations are fully included in the development of any National Energy Strategy, stating that regulatory approvals for major projects will only truly be reformed and improved if First Nations are fully involved. (Assembly of First Nations, 2015b)*

Non-Indigenous communication about inclusion through energy sounds less adamant. The following statement from the first synthesis report of the Pan Canadian Framework on Clean Growth and Climate Change presents provincial initiatives on renewable energy benefiting Indigenous and non-Indigenous communities:

> *Alberta proclaimed the Renewable Electricity Act and launched the Renewable Electricity program to support the development of 5,000 megawatts of renewable electricity capacity by 2030. The province also announced $35 million to fund Indigenous climate leadership*

> *initiatives, including renewable and solar energy projects in First Nation and Metis communities. (Government of Canada, 2017, p. 7)*

Without using the word "reconciliation", the above excerpt sits well with Western imaginaries of a pluralist society awarding equal opportunities to all, oblivious to the fact that many Indigenous communities struggle with technical capacities to develop projects and are still constrained by Indian Act provisions regarding on-reserve investments. For such communities, the mere existence of a climate fund is not sufficient to overcome the structural barriers to resource development. Indigenous voices demand a form of inclusion that confronts the inertia of colonial structures. The newspaper Anishinabek News reports comments made by Cynthia Wesley-Esquimaux, Chair on Truth and Reconciliation at Lakehead University in Ontario, where she calls for concrete action, demanding that Indigenous people gain authority and decision-making power (Garrick, 2017).

> *The Indian Residential Schools became an industry, reconciliation is becoming an industry, everything we touch turns to gold. Except it never touches us, and that is really the biggest issue that we have (…) You need to hire Indigenous people in administrative positions where they have the authority to make decisions and actually implement change. If you do not do that, you are not doing your job and you are not doing reconciliation. (Garrick, 2017)*

Indigenous voices are not ready to pare down their demands on having a meaningful role at discussion tables and equitably sharing benefits in resource development. Those Indigenous voices who subscribe to the idea of *inclusion* seek to veer from old ways of thinking and doing. However, those old ways persist, as illustrated by the images of dependency found in many forms of public communications.

4.4.2.2 Dependency

This theme covers 291 sections of text in our data set, about one in five, as shown in Table 4-3. The sources mainly originate from non-Indigenous sources and also significantly expanded after 2015. One of the common themes relates to the living conditions of Indigenous peoples and their *vulnerability* to climate change, as reflected in the following quote from the Pan Canadian Framework on Clean Growth and Climate Change (2016).

> *Indigenous Peoples, northern and coastal regions and communities in Canada are particularly vulnerable and disproportionately affected. Geographic location, socio-economic challenges, and for Indigenous Peoples, the reliance on wild food sources, often*

> *converge with climate change to put pressure on these communities. (Government of Canada, 2016, p. 1)*

Indigenous leaders like Chief Bellegarde, National Chief of the Assembly of First Nations (AFN), also use the language of dependency, yet from a different standpoint. In the following AFN news release excerpt, Bellegarde reminds the federal government of its financial obligations and its historic role in institutionalizing Indigenous poverty, stressing Indigenous dependency to demand fundamental change.

> *There are two basic problems: first the status quo of chronic, conscious underfunding regardless of need or equity; and second, First Nations governments are funded like NGOs rather than governments that are part of the constitutional fabric of this country. (Assembly of First Nations, 2015a, p. 4)*

Under the theme of dependency, a small number of excerpts refer to Indigenous people as liabilities, often in a very subtle way. A 2013 newspaper article from La Presse (Baril & Journet, 2013), a major daily in Quebec, relates the mixed reactions of energy stakeholders in that province after the release of market allocations to wind energy producers, including Indigenous producers. The news article subtly weaves together the public discontent over rising electricity costs and a complaint that an over-accommodating process allocated generous energy production contracts (150 of the total 800 MW production capacity) to Mi'gmaq communities. Words such as "aberration" (non-sense), "déploré" (lamented), and "déçu" (disappointed) stand out because such sentiments vis-a-vis Indigenous people, though few, speak loudly to the enduring patterns of settler mentality. Thankfully, alternative representations of Indigenous people emerge in public communications, a hopeful sign of changing times.

4.4.2.3 Indigenous representations

This third theme, with 265 statements, tripled after the TRC. Until 2014, we found an almost equal number of those representations in Indigenous and non-Indigenous sources (see Table 4-2). From 2015 onward, non-Indigenous voices champion this category, which could point to the TRC's impact on a nation suddenly more aware of patterns that historically besmirched Indigenous Canadians and seeking now to make amends. The occurrences of the sub-theme *Indigenous people as political voices* could also be indicative of a shifting power dynamic. The following statement from the 2013 Long Term Energy Plan of Ontario reflects the role of *Indigenous people as business partners* in the energy sector (Government of Ontario, 2013):

> *The Ring of Fire, 540 km northeast of Thunder Bay, has the potential to become a significant economic development driver for Northern Ontario and First Nation communities. To help realize this potential, Ontario has announced its intention to partner with industry, First Nations and the federal government to create an infrastructure development corporation. (Government of Ontario, 2013, p. 49)*

The recognition of Indigenous communities as *business partners* is necessitated by the abundance of natural resources on traditional lands. This idea connects to the marginal sub-theme of *political stooges* representing a small 2% of the statements categorized as *Indigenous representations*. This sub-theme carries the negative connotation of political gaming, conveying the impression that Indigenous people might be stooges to the federal government in search of good press, international recognition, or stability for corporate actors. The very small but continued prevalence of the political stooge representation is problematic because it likely will persist if Indigenous peoples' voices are excluded from substantial policy discussions.

4.4.2.4 Exclusion

The theme of *exclusion* represents 258 of the 1501 statements, or 1 in 6. The following excerpt, taken from a submission from the University of Ottawa to the Generation Energy consultation, sets the tone of the energy-reconciliation conversation in the post-TRC era, stressing its challenges and the likelihood of controversial outcomes (Cleland et al., 2017).

> *First of all, big unresolved policy - decarbonisation and reconciliation with Canada's Indigenous peoples – will not be solved by institutional changes. It will still be chaotic, politically messy and expensive. It will require human resource capabilities far greater than Canada devotes today to managing energy policy and regulation. Decisions eventually have to be made and there will be winners and losers, (Cleland et al., 2017, p. 38)*

Cleland et al. (2017, p. 4) recognize the limitations of institutions in addressing the joint imperatives of energy transition and reconciliation and draw attention to Canada's "underlying value conflicts and divergent interests left unresolved". Their reference to divergent interests is premised on a 2015 national survey that illustrates the challenges of decarbonisation and reconciliation. The survey probed the public support to "Canadian governments working to negotiate an energy accord with Canada's Aboriginal peoples to reduce conflict and uncertainty in the development of energy projects". 49% of respondents indicated that they would support and 32% that they would somewhat support. Such response evinces a general placatory attitude towards Indigenous people. However, when asked, "What is more important in a proposed energy

project moving forward?", 54% of respondents prioritized the national interest while 36% opted to prioritize the rights of Indigenous people:

> *Overall Canadians generally believe that it is possible to develop resources while protecting the environment and are supportive of investments in the renewable energy sector. They also clearly expect the federal government to take the lead and think the national interest is more important than local, provincial or Aboriginal views. (University of Ottawa, 2015, p. 2)*

The very formulation of the survey question could put respondents in a mindset of dichotomous choice between energy and reconciliation. This survey construction is revealing as it suggests the dilemmas that ordinary Canadians face at the crossroads of energy transition and reconciliation. At that crossroads also lies the issue of Indigenous autonomy.

4.4.2.5 Autonomy

We coded under this theme just over 1 out of 10 excerpts (161 out of 1501 in Table 4-2) which originate from Indigenous voices almost as much as from non-Indigenous voices (ratio of 1.3). However, when these two demographics talk about *autonomy*, they do not mean the same thing. In its 2017 Long Term Energy Plan, the Government of Ontario provides several examples of what it calls Indigenous leadership in the energy sector:

> *In June 2017, the Wikwemikong First Nation launched its Ignite Energy and Infrastructure Project. …It is estimated this will save the community more than $157,000 per year in energy costs, a 58 per cent savings in the energy used for lighting. The $1.1 million project will be financed with a contribution of $127,900 from the IESO's Save on Energy Program and private debt financing...(Government of Ontario, 2017, p. 131)*

In the following excerpt of newspaper article, published in Anishinabek News, Chief Denise Restoule of Dokis First Nation in Ontario conveys her pride in her community's engagement in hydro-electric development and assertion of political autonomy.

> *She pointed out that Dokis was proud to contribute to creating green energy and assisting in climate change while world leaders were discussing this topic and challenged Canadians to recognize the importance of environmental stewardship….Dokis First Nation membership voted to opt out of the sections of the Indian Act dealing with land issues and ratified their own land code in 2013. By ratifying their own Land Code, Dokis membership took a bold step to manage their own lands, resources and environment as enabled through the First Nations Land Management Act. (Krackle, 2015)*

Behind the ecological engagement of Dokis First Nation is a bold assertion of *autonomy*. The Dokis First Nation went beyond merely implementing an energy project to ratify its own land

code outside of the Indian Act. This granted them a seat at the decision-making table in a new government-to-government relationship. Speaking about closing the development gap between Indigenous and non-Indigenous communities, AFN leaders also demand, in one of their own communiques, a new form of relationship:

> *We are not a third order of government or a municipal form of government…Shared sovereignty means we will no longer tolerate being treated as "claimants" in our own lands. What we hold is what the Creator gave us. We do not hold "grievances", we hold this land…We are resuming control. We are re-asserting jurisdiction over our lands and resources…First Nations are no longer willing to sit on the side of the road watching rocks, minerals, forests, and other natural resources taken from our territories while our communities struggle. (Assembly of First Nations, 2015a)*

The notion of "third order" connects with the theme of *after-thought,* a position in public debates that Indigenous communities adamantly reject.

4.4.2.6 After-thought

There are only 42 statements coded under this theme, relatively few. Two of them were taken from Indigenous newspapers reporting government action and the others originating from non-Indigenous sources. The following excerpt taken from a white paper submitted to the Generation Energy consultation fits in the former category. It focuses on the intergovernmental policy space on climate change and energy, describing areas of collaboration between federal, provincial, and territorial jurisdictions.

> *The federal government cannot own a comprehensive Canadian energy strategy; the provincial and territorial governments are too constitutionally empowered and too important practically to be overlooked. ... The challenge is to find a strategic language that acknowledges both the autonomy and co-dependence of the federal and provincial governments, and for that matter, municipal and Indigenous governments. (Gibbins, 2017, p. 15)*

The context of this statement is the jurisdictional split on energy issues among federal, provincial, and territorial governments, a constitutional challenge that is compounded when discussions extend to Indigenous governments. The excerpt lists the provincial and territorial governments as entities too important to be overlooked while Indigenous governments are listed at the end of the paragraph, alongside municipal governments. The following example, taken from Ontario's Climate Change Action Plan for 2016-2020, illustrates an inherent contradiction between stated political intent of a program and actual program content:

Action Area: Collaboration With Indigenous Communities Action
Intended GGRA Funding (Total): $85,000,000 to $96,000,000
Est. GHG Reduction In 2020 : TBD*
Est. Cost Per Tonne : TBD
Timetable Action Start: 2017/18 (Government of Ontario, 2016, p. 73)

This text was taken from a section on collaboration with Indigenous communities; it consists of two rows at the bottom of a page, between two pages on collaboration with industry and business and two pages about research and development. The section outlines in detail the challenges and opportunities attached to the collaboration with Indigenous communities; however, the quantitative tables corresponding to the narrative send a different message. As we note, there is a stated funding allocation, but no estimate of GHG emission reduction nor estimated cost of action. With many of the attributes of a recipe for failure, the government's plan of action encapsulates the idea of *Indigenous people as an after-thought*. There are few such examples in our data set, but the ones there are do illustrate the ingrained patterns of thinking in settler society and policy circles. We elaborate in the following section on the implications of our findings.

4.5 Discussion and conclusion

We examined the ways in which Indigenous and non-Indigenous sources communicate about reconciliation within the energy transition to understand if reconciliation is accepted as a concept, by whom, and with what potential effect. Our findings show antithetical issues of inclusion and exclusion, autonomy and dependency interlaced in public communications. Overall, non-Indigenous voices dominate those communications where empowering representations of Indigenous people coexist alongside prejudiced ones. The texts examined rarely reflect the differences in Indigenous and Western imaginaries about development and well-being, which is symptomatic of Canada's historical context where, even when Indigenous voices and views are included in news media, they are "diluted through techniques of deflection, decontextualization, misrepresentation and tokenization". (Harding, 2006, p. 225). One of the common tropes noted by Harding, "aboriginal as victim" (2006, p. 225), is reflected in our findings through themes such as "Indigenous people need support" and "Indigenous people are vulnerable," with both tropes recurring in non-Indigenous communications.

In contrast, discourses of autonomy and exclusion are only slightly dominated by non-Indigenous voices. This may indicate that both Indigenous and non-Indigenous Canadians similarly aspire to see higher levels of Indigenous autonomy, even though autonomy may take on different meanings for each group. For settlers, Indigenous autonomy may mean equality, an "inherent feature of liberal democracy" (Alfred, 2011, p. 167), which does not grant special treatment to any category of people. The national survey cited earlier indicates that settlers are not ready to sacrifice their interests to benefit Indigenous people (University of Ottawa, 2015). This perspective gives credence to Indigenous critics who argue that the underlying intention of reconciliation is to maintain the status quo (Alfred, 2015) and that settlers are willing only to accommodate Indigenous claims that do not threaten colonial privileges (Davine et al., 2017; Lowan-Trudeau, 2017). Our analysis also illustrates that resurgence is alive and well, as evidenced by examples of Indigenous people refusing to bend to colonial pressures. One such instance is the Inuit leadership engaging in a "David and Goliath style communication struggle" (Inuit Tapiriit Kanatami, 2015) to confront the Eurocentric imaginaries of life in the Arctic and assert their rights to traditional hunting practices.

In connection to our second question about the evolution of discourses over the 2009-2018 decade, we highlighted the significant expansion of the theme *inclusion* that brings together Indigenous and non-Indigenous Canadians and the marginal expansion of the theme *exclusion* that juxtaposes the two groups as antagonists. This finding suggests that Indigenous and non-Indigenous Canadians increasingly discuss the convergence of reconciliation and decarbonisation imperatives as they both share significant interest in the development of energy resources (Dreveskracht, 2011; Krupa, 2012a). However, the shared interests in the energy sector may not be sufficient to topple the colonial edifice because "something was stolen, lies were told and they have never been made right" (Alfred, 2011, p. 166). This is why Indigenous leaders insist on fully participating in energy decision-making processes in the post-TRC era.

In direct response to the Generation Energy statement, we posit that there is neither evidence nor guarantee that the current energy transition will improve the relationship between Indigenous and non-Indigenous people. At its worst, it may sustain the status quo by reinforcing current colonial structures. At the same time, rather than utterly discarding the conclusions of the Generation Energy consultation, we argue that there is a possibility of cross-fertilization between the energy

transition and reconciliation journeys. On the one hand, the energy transition could improve relationships by forcing settler society to address unresolved issues related to Indigenous lands and resource development. Building on this idea, the theme *together against climate change* is the second most prominent theme under the inclusion discourse. Fighting climate change is a national imperative and also ranks at the top of priorities listed in the document “Honouring promises” released by the Assembly of First Nations ahead of the 2019 federal elections (Assembly of First Nations, 2019). The AFN priorities were quickly endorsed by the national Green Party, which also pledged to put in place a framework for Indigenous people to opt out of the "racist and oppressive" Indian Act (The Canadian Press, 2019) as part of their reconciliation strategy. However, some observers note that opting out of the Indian Act does not appear on the AFN list of priorities, and this is an indication that consensus on climate change may hide divergent views on the format and outcome of reconciliation.

On the other hand, the reconciliation journey could provide an opportunity to revisit energy transition pathways by bringing Indigenous worldviews in energy debates, including Canada’s conversation on a dual-track energy transition aiming for both clean energy production and low-carbon oil and gas production. Asch and Borrows, alluding to a form of ecological reconciliation, underscore the unique relationship that Indigenous people have with the water, wind, sun, rocks, and land. This perspective is also reflected in our findings through the sub-theme related to *Indigenous people as land stewards*. Asch and Borrows (2018) make it clear that Indigenous people are neither inherently more ecologically-focused, nor more destructive to the environment, yet First Nations generally hold in respect the notion of natural “inherent limits.” This is a notion with which Eurocentric societies still struggle to align and if energy transition is to succeed, it is an approach that is much needed.

We argue, alongside Senator Murray Sinclair, that Canada might be “on the cusp of something special” as it gradually shakes its colonial “ cloak of pain and shame” (McFarlane & Schabus, 2017, p. 71) while dealing with its fossil fuel addiction. In 2008, speaking at the United Nations Climate Conference in Poland, the federal Environment Minister stated that the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) had “nothing whatsoever to do with climate change” (Curry & Mittelstaedt, 2008). The political messaging has evolved a great deal since then. In direct response to the TRC Calls to Action, Canada fully adopted UNDRIP in 2016,

which opened new opportunities for Indigenous Canadians to voice their positions about natural resource development and climate change. The TRC report also birthed the National Inquiry into Missing and Murdered Indigenous Women and Girls (MMIWG), which final report includes 231 Calls for Justice, an Executive Summary in an Indigenous language (Inuktikut), and a legal analysis on colonial genocide (The National Inquiry into Missing and Murdered Indigenous Women and Girls, 2019b). As these and other accounts of colonial harms and injustices come to the surface, they bring opportunities to renegotiate the relationship between Indigenous and non-Indigenous Canadians in more fundamental ways than the contested "apologize-and-be-absolved" approach to reconciliation (Alfred, 2011, p. 167). Therein resides the opportunity to reduce both carbon emissions and entrenched colonial patterns by engaging in an energy transition that does not name winners and losers along racial lines. As the concept of reconciliation is challenged and evolves over time, there might appear opportunities to rise to the vision of the Two Row Wampum.

Chapter 5

5 Not paid to dance at the powwow: Power relations, community benefits, and wind energy in M'Chigeeng First Nation, Ontario, Canada

To cite this article: Mang-Benza, C., Baxter, J., 2021. Not paid to dance at the powwow: Power relations, community benefits, and wind energy in M'Chigeeng First Nation, Ontario, Canada. Energy Res. Soc. Sci. 82, 102301. https://doi.org/10.1016/J.ERSS.2021.102301

Abstract

The literature on wind energy developments upholds distributional and procedural justice as key drivers of community acceptance of wind turbines. However, this Eurocentric and settler-based literature routinely over- looks Indigenous contexts, causing concern that the energy transition might reproduce the socio-economic in- equalities of the fossil fuel era. Through 32 semi-structured interviews conducted within a community-based approach, this paper examines the lived experience of people living with wind turbines in M'Chigeeng First Nation in Ontario, an Indigenous community who owns and operates two wind turbines. We examine what the turbines mean to M'Chigeeng members, how owning the turbines relates to the community's values and goals, and to which extent M'Chigeeng's engagement in renewable energy portends a redefinition of relationships between Indigenous and non-Indigenous people in Canada. The key themes in our findings are acceptance and support of the turbines, intra community communication, the importance of ownership, and relationships. While members expressed the need for clear and up-to-date communication on the project and are yet to see the generated financial benefits, intracommunity tensions remain manageable for the time being, tempered by a general pride from owning the turbines. Connecting relationships to restorative justice and recognition justice, we argue that these latter dimensions are equally, if not more meaningful, than procedural and distributional justice for understanding the meaning of turbines in M'Chigeeng First Nation. This study reaffirms the importance of attending to place histories at the broadest scale in examining communities' responses to renewable energy, especially in settler countries like Canada.

5.1 Introduction

The emphasis on techno-economic considerations and persistence of Eurocentrism observed in energy transition discourses and renewable energy policies raise concerns that the low-carbon economy might reproduce the socio-economic inequalities of the fossil fuel era. Among other things, this would perpetuate the marginalization of racialized, including Indigenous, communities by giving preponderance to Western sites of knowledge and broadcasting a single story about socio-economic progress and adoption of energy technologies (Bell et al., 2020; Sovacool, 2014). In settler countries like Canada, energy developments connect to a particular history of colonial dispossession of Indigenous people, history that is rarely addressed in accounts of renewable energy deployment (Haley, 2014; Rodman, 2013). Advocates of justice in the energy transition foreground this history as they uphold claims for procedural and distributional justice, then expand these claims to recognition and restorative justice (Fathoni et al., 2021). It is with these concepts in mind that we examine the local meanings of community renewable energy. The paper delves into an Indigenous community's experience of living with wind turbines, casting light on the internal and external tensions related to the planning process and distribution of benefits, and more importantly on the community's aspiration to restoration and healing.

We recognize that the concept of community is fraught with heterogeneity, as there are in all groups "differentiated levels of access to power, control over resources, and degrees of participation" (Lai, 2021, p. 3). Likewise, the terms community renewable energy or community wind energy are broad concepts that loosely refer to schemes led or owned by citizens to produce electricity from sustainable sources (Bauwens, 2016). Also broadly defined, community-ownership predicates that the community in the vicinity of the energy facility holds the majority share of investment, is substantially involved in the implementation process, and enjoys the majority of financial benefits from it, all of which generally increase the project acceptability (IRENA Coalition for Action, 2018; G. Walker & Devine-Wright, 2008). Whilst there are ample studies on drivers of communities' responses – the "social acceptance" literature - in Europe and North America, motivations and responses are not universal and limited work has yet been conducted in Indigenous contexts. Exploring community wind energy in Indigenous contexts is relevant in several post-colonial settings and, using Canada as an example, we find at least three intersections. First, wind energy deployment has increased dramatically in the past two decades.

The capacity of onshore wind power installed across Canada has grown from 3.3 GW in 2009 to 13.4 GW in 2019, with 5.4 GW in the province of Ontario alone (Canadian Renewable Energy Association, 2020). Second, the Canadian federal government is engaged in the national project of reconciliation to improve relationships between Indigenous and non-Indigenous Canadians (Truth and Reconciliation Commission of Canada, 2015b). Third, long before, and in parallel to the government-led reconciliation project, Indigenous communities across the country had been demonstrating cultural and political resurgence, seeking self-sufficiency and community revitalization, including by investing in renewable energy projects (Hoicka & MacArthur, 2018; A. A. Smith & Scott, 2021).

Using a largely inductive approach, this paper aims to decipher the deeper meaning of a 2x2-MW wind energy project fully owned by M'Chigeeng First Nation and understand the community's perceptions of it. Drawing on a government-funded research collaboration between the First Nation and the University of Western Ontario, the paper addresses the following broad research questions: 1) What do the turbines mean to the members of the M'Chigeeng First Nation? 2) How does turbine ownership relate to the community's values and goals? and 3) To which extent does M'Chigeeng's engagement in renewable energy portend a redefinition of relationships and power in the settler Canadian society? In what follows, we begin by introducing the literature on community-owned wind energy and its very limited engagement with Indigenous issues (Section 2). Section 3 presents the research context and methodology, followed by the main findings in Section 4. In our discussion (Section 5), we locate M'Chigeeng's experience in the community renewable energy literature and summarize the limitations and contributions of this work.

5.2 Literature review

5.2.1 Community wind energy: from acceptance to justice

Examining community wind energy projects often starts with attention to drivers of acceptance but quickly compels to examine dimensions of energy justice. Firestone et al. (2018) distinguish between acceptance and support, arguing that acceptance may be tainted with resignation and passive acknowledgment of a siting decision they may feel forced to live and get along with, while support implies an active stance in favour of the energy infrastructure. Scholars agree that the community acceptance and support generally increase with the level of local involvement in

project development, as reflected in process and outcome (G. Walker & Devine-Wright, 2008). Process, connected to procedural justice, relates to the level of information, consultation, and negotiation between project developers and the local community, particularly the community's decision-making power and ability to veto developments (C. Walker & Baxter, 2017b; G. Walker & Devine-Wright, 2008). Distributive justice is about the social and spatial distribution of project outcomes, i.e., the costs and benefits of the project, with benefits being at a minimum proportional to the perceived negative externalities of the projects, e.g., noise and shadow flicker annoyance (C. Walker & Baxter, 2017a; G. Walker & Devine-Wright, 2008).

From the early 2010s, energy scholars started expanding analyses of procedural and distributional justice to include recognition justice, which emphasizes that "individuals must be fairly represented, that they must be free from physical threats and that they must be offered complete and equal political rights" (Mccauley et al., 2013, p. 3). In contrast, misrecognition involves "cultural and institutional processes of disrespect which devalue some people in comparison to others" (Velasco-Herrejon & Bauwens, 2020). Concerns for recognition are superimposed onto struggles about distribution as socio-cultural injustice, i.e. marginalization due to race or class, is often combined with economic injustice that limits or prevents access to resources (Fraser, 1995). When the victims of such injustices are Indigenous, it is necessary to further expand the lens of analysis and face the limitations of recognition justice, as discussed by Glenn Coulthard (2014) and Hurlbert and Rayner (2018) in the Canadian context. Coulthard (2014) observes that recognition may be sanctioned by the dominant settler society, leaving the oppressed groups with little agency on the terms of recognition. Hurlbert and Rayner (2018) contend that the full extent of arguments made by Indigenous communities are rarely grasped by settler institutions, leading to reductionist interpretations of the rights claimed. Oftentimes, the rights asserted by Indigenous communities are ignored or assessed outside the frame of land attachment that is a key determinant of Indigenous lifestyles and well-being. Indeed, "place is a way of knowing, experiencing, and relating with the world – and these ways of knowing often guide forms of resistance to power relations that threaten to erase or destroy our senses of place", as explained by Coulthard (2010a, p. 79) about Indigenous nations' attachment to land.

The concept of attachment to land and place is however not completely foreign to the community energy literature. Examining thirty years of wind energy research in North America, Rand and

Hoen (2017) recognize the need to better understand how place attachment relates to communities' acceptance of wind turbines. Other scholars explicate that context and place influence the way a community receives, interprets, and evaluates an energy project (Baxter et al., 2020; Devine-Wright, 2009). In that sense, communities' responses proceed from the psychological attributes of the places hosting energy infrastructures, including emotions and symbolic meanings, attributes that override physical features (Devine-Wright, 2009). When a given place is modified by the installation of energy technologies, the host community may interpret the change either as a sacrifice or an enhancement. Baxter and colleagues ((2020, p. 8), p.8) posit that 'some communities are more open to renewable energy development because of how their local history is embedded in wider social, economic and policy contexts'. Further stressing the importance of place and local history, Lai (2021) warns against using alleged universal metrics and apolitical standards in the analysis of communities' responses to energy projects, lest unique contexts be left invisible. Instead of relying "on Western colonial frames of justice to address the concerns of Indigenous peoples" (McGregor, 2018a, p. 289) we appreciate for example that many Indigenous peoples associate justice to equitable relationships between people and all beings. As we examine under-explored aspects of energy justice, we begin to consider the dimension of restorative justice.

Seeking also to expand the conceptualization of energy justice, Heffron and Mccauley (2017) propose the dimension of restoration that is about mitigating impacts, repairing damage, and possibly preventing further harm. Restorative justice aligns with several models followed by Indigenous communities to address conflict. In the Navajo Nation, when situations of harm occur, members follow a restorative approach that consists in gathering community members to "talk things out so that harmony might be restored to relationships that have been set on end." (Sullivan & Tifft, 2007, p. 1). Focusing on meeting needs so that all those affected by the harm might heal together, this approach to restorative justice "sees the pain and suffering of all as worthy of our collective attention while the state discriminates between those worthy of the community's attention and those not" (Sullivan & Tifft, 2007, p. 2). Similar forms of restorative justice are followed by First Nations in Canada, with approaches predicated on meeting needs of both victims and offenders and attending to relationships within the immediate (family) or extended community (Johnstone & van Ness, 2007; Sullivan & Tifft, 2007). Brought to the context of energy, restorative justice can be viewed as the unifying goal of energy justice and a way to

inform decisions about energy projects before, during, and after their implementation (Heffron & McCauley, 2017). In fact, restorative justice unifies the other dimensions, including distributional justice, because it respects communities' actual needs without predefining them; procedural justice, as it invites all stakeholders to participate while honouring the terms and requirements of their participation; and recognition justice, because it values and empowers people usually left on the margins, excluded "from the definition and correction of what ails them" (Sullivan & Tifft, 2007, p. 3). The dimension of restoration thus deserves attention in the context of renewable energy deployment and community wind energy, mainly because of the way most energy projects have historically been implemented in Indigenous territories, as we briefly explain below.

5.2.2 Indigenous communities and wind energy

5.2.2.1 Winds of dispossession

The few authors who attend to wind energy in Indigenous contexts generally lambast conditions imposed on Indigenous communities and patterns of oppression and dispossession observed over the years. Lawrence (2014) describes wind power developments in Stekenjokk, Sweden, homeland of the Saami people who claim ownership of Sweden Crown's mountainous lands. For the Saami people, that area is "matterahka, Saami Mother Earth", a culturally and spiritually significant territory. As the pressure from wind developers intensifies on traditional lands, Saami people's contestations and resistance mount alongside claims to sovereignty and self-determination (Lawrence, 2014). In North America, Huesca-Perez et al. (2016) expose the violations of procedural and distributive justice associated with private wind development in the state of Oaxaca, Mexico, home to a large Indigenous population, and to 90 percent of the national wind power capacity. Zarate and colleagues (2019, p. 1) add that, "wind energy development in Mexico resembles an extractive model, with no consideration of local cultures or organizations". Rodman (2013) reports how Gitxaala First Nation, Nation of 'the People of the Salt Water' in British Columbia, Canada, has been resisting resource extraction, from firewood in the 19th century to oil, gas, and wind more recently. When their territory was prospected for wind farms, including one that could have become Canada's first offshore wind farm but was never developed, some Gitxaala members opposed that wind turbines were no different from pipelines, considering both as outsider-driven infrastructures of dispossession (Rodman, 2013). In face of historic and

contemporary acts of oppression, some Indigenous communities take a driving role to own and operate their wind projects, instead of merely hosting projects developed by distant government or private entities (Krupa, 2012a; A. A. Smith & Scott, 2021).

5.2.2.2 New power lines

The few authors attending to the social aspects of Indigenous energy production put colonial legacies front and center in their analyses of communities' motivations. When Indigenous people initiate development projects, their motivations are often to use their land resources to achieve self-determination, assert sovereignty, and sever their dependency from settler government authorities (Dreveskracht, 2011; Lowan-Trudeau, 2017; Stefanelli et al., 2019). In the current low-carbon transition, some Indigenous communities connect the use of renewable energy resources to sovereignty and a new form of land stewardship. Anishinabe scholar Winona LaDuke ((2006, p. 10), p.10) states that "alternative energy represents an incredible social and political reconstruction opportunity and one that has the potential for peace, justice, equity, and some recovery of our national (Indigenous nations') dignity. Renewable energy makes economic sense".

The few cases of Indigenous community ownership reported in the wind energy literature highlight this socio-political power reshuffle, sometimes ironically, and perhaps necessarily in the current world older, made possible by colonial structures through historic land claims compensation, grants, or policy incentives. Berka et al. (2020) report that numerous Maori-owned geothermal projects in New Zealand result from successful Treaty settlements that provided the necessary financial resources to formally acquire land or invest in energy corporations. In the US, the Rosebud Sioux Tribe received in 1999 a government grant to build the first Indigenous-owned utility-scale wind turbine, the 750 Kw "Akicita Cikala" Turbine (LaDuke, 2006; Rogers, 2008). In various Canadian provinces, pro-renewable energy policies adopted in the 2010s facilitated the entry of Indigenous communities in the renewable energy sector, as partial or full asset owners (Hoicka et al., 2021; A. A. Smith & Scott, 2021). In their Canadian survey of 194 operational renewable energy developments involving various forms of Indigenous participation, Hoicka and colleagues (2021) found 33 projects fully owned by Indigenous communities. Ownership awards the ability to generate revenues that not only supplement the insufficient transfers from the federal

government but also escape its control, allowing Indigenous Bands to allocate these resources where they see best fit (A. A. Smith & Scott, 2021). Such an opportunity was seized by M'Chigeeng First Nation when they decided to independently own and operate their 4 MW wind project.

5.3 Research setting and methodology

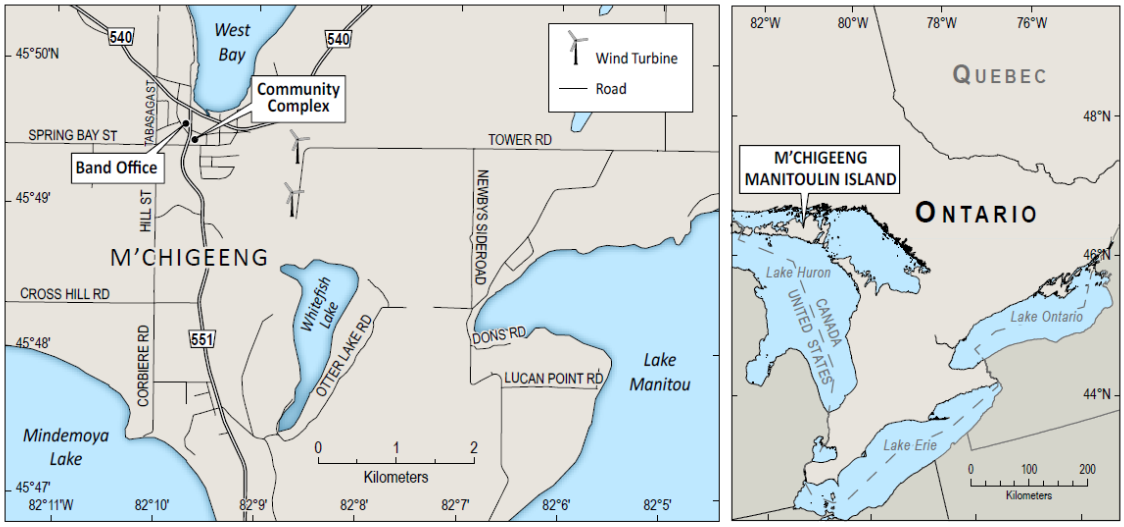
5.3.1 Context: M'Chigeeng First Nation and the MERE project

M'Chigeeng First Nation is the second largest First Nation on Manitoulin Island, Ontario, with over 2500 registered members, including about 900 living on the reserve. Indigenous reserves are the products of Canada's settler colonial project that institutionalized the marginalization of Indigenous people and enacted their socio-economic dispossession to the profit of European settlers. As Indigenous communities grew impoverished and dependent on government assistance, relationships between Indigenous and non-Indigenous people in Canada became tainted with mistrust and contempt (Adelson, 2005). One of the present legacies of colonialism is that, across the three categories defined by the Constitution, First Nations, Métis and Inuit, Indigenous Canadians trail their non-Indigenous fellow citizens on all human development indicators, including employment, health, education, and access to potable water and modern energy services (Adelson, 2005; D. Macdonald & Wilson, 2013). Since the early 2010s, the federal government has been increasingly using the language of reconciliation to improve the broken relationships between Indigenous and non-Indigenous Canadians and address the social, economic, and political marginalization of Indigenous people (Mang-Benza et al., 2021). In parallel, an increasing number of Indigenous communities are asserting their economic and political place in the Canadian society by various means (Kekinusuqs, 2005; McCreary & Milligan, 2014). In M'Chigeeng's First Nation, one of such means is wind energy with Mother Earth Renewable Energy (MERE) project.

The Nation's official website (https://www.mchigeeng.ca) presents a vision statement: "*M'Chigeeng Anishinabek will be a vibrant, progressive, proud, united Ojibwe-speaking First Nation. Our people will be healthy, self-reliant, respectful of our obligations to Mother Earth, and culturally grounded, showing mutual respect and support for all people."* The website also features as background picture a wind turbine, one of the two 2MW Enercon turbines installed by

the MERE project. Much smaller than other Indigenous wind developments in Ontario, such as the 300 MW wind farm in Henvey Inlet First Nation and Batchewana First Nation's 58 MW development, the MERE project is nevertheless unique in that M'Chigeeng First Nation is its sole owner (see Figure 5-1).

Figure 5-1 Map of the two wind turbines in M'Chigeeng First Nation



Produced by: Cartographic Section, Geography and Environment, Western University, 2021.
Base map source: Canada, National Topographic Data Base, downloaded Feb. 2021.

After a long inception period (consultations started in the early 2000s), the MERE project benefited from the passing the 2009 Green Energy and Green Economy Act (GEGEA) and its cornerstone Feed-in-Tariff (FIT) programme which awarded generous long-term electricity purchase contracts to all renewable energy producers (Stokes, 2013). The FIT programme also granted premiums to projects demonstrating some level of community ownership. Among such premiums was the Aboriginal Price Adder that increased the electricity purchase tariff in proportion to the level of Indigenous ownership participation (Krupa, 2013; Smith and Scott, 2020). Despite the strong public opposition that later led the government to jettison the FIT programme and repeal the GEGEA in 2018, several Indigenous communities were able to complete their renewable energy projects. M'Chigeeng First Nation was one of the early movers in the province.

Being the first wind project in Ontario independently owned and operated by a First Nation, the MERE project made the headlines in the province when commissioned in 2012. The MERE

business model predicted an average annual revenue of $300,000 in the first 14 years (while the loan was being repaid) and $1.2 million in the remainder of the 20-year contract signed with the provincial utility, Ontario Power Authority (Burridge, 2011; Kelly, 2013). Several news reports emphasized M'Chigeeng leadership in renewable energy and noted the financial boon offered by the project, alluding to several options regarding allocation of electricity revenues, including economic development initiatives, a subsidy on electricity bills in the community, or additional energy projects (Kelly, 2013).

5.3.2 Methodology

In our engagement with M'Chigeeng First Nation, we followed a modified community-based approach, a key modification being that the research project was not initiated by the community, but proposed in 2016 by academics from the University of Western Ontario. The conversation that ensued led to a Band Council Resolution, i.e., a formal approval of the partnership in 2018. Our research approach does not claim to be an Indigenous methodology, neither experiential nor ethnographic (Louis, 2007), yet we abide by a respectful etiquette. We recognize the troubled past of colonial research practices of coopting knowledge, data, and samples from Indigenous communities with little regard for local knowledge exchange, impacts and benefits. This recognition is also shared at the community level. At the community launch event for our research partnership, a former Chief welcomed us with a public and friendly warning about the colonial history of research in Indigenous communities. Our approach also acknowledges the present power imbalance between university research grant recipients and Band staff stretched thin between competing demands.

At the project inception, we formed a project advisory committee composed of one Elder, three Band Office staff, a University Professor, and a PhD candidate (first author). The Advisory Committee has been essential in the co-design of research instruments, preparation for data collection, and mobilization of knowledge. The Advisory Committee agreed to start the project with in-depth interviews and follow up later with a more extensive survey. While the Advisory Committee designed the interview guide, the university team took the lead in conducting the interviews with a view to maintaining the anonymity of participants. The interviews invited M'Chigeeng residents living on-reserve to share their lived experience with wind turbines.

Between August and October 2019, the lead author conducted 32 interviews, including 28 with Band members (17 women and 13 men)[8] and four with residents who are non-members, hence have no voting rights in the Band's affairs (one woman and three men). All respondents indicated that they could see the turbines, either from their homes or during errands on the 3095 ha-community land.

We inductively analyzed the interview transcripts line by line, first in a descriptive manner to collect all ideas discussed by participants, then conceptually to identify patterns relevant to the research questions. The preliminary findings were shared with the Advisory Committee for appreciation only and interview participants for member-checking. Member-checking is used in qualitative research to assess the researchers' interpretation of data and as a way to "ensure that the power to define what was included or excluded remained with the participants themselves" (Castleden et al., 2008, p. 1396). The findings below incorporate revisions based on participants' inputs (three submissions received). All names listed hereafter are pseudonyms.

5.4 Findings

Out of all the themes captured in the analysis, we selected four themes for their salience and contribution to our overall understanding of M'Chigeeng wind project. These four major themes are: 1) Acceptance and support, 2) Communication, 3) Ownership, and 4) Relationships.

5.4.1 Acceptance and support

In the 32 interviews, the participants reported seeing and occasionally hearing the turbines but only three showed a moderate level of opposition due to the noise and the visual impact. The most vocal respondent, Agnes, whose house is near the turbines, adamantly complained about the sleep

[8] Two of the interviews were conducted with a couple.

disruption from the noise: '*I don't care for where they are situated... I'm in this house and I hear those. Those things wake me up at night 'cause I hear that [whoosh] [whoosh].'*

Lucy, who lived many years outside the reserve, did not complain about the noise but is pained by the cultural impacts and ecological impacts of erecting the turbines: '*I feel hurt when I see the wind turbines because of the disruption to Mother Earth, to the rocks, the sand removed from digging*'. Veronica also had an initial negative reaction when she first saw the turbines: "*I said Ooh, those are ugly*!" yet gradually changed her mind. She now connects the turbines to natural elements, viewing them like stars blinking in the morning sky*:* "*Oh those stars over there woke me up this morning. And they said get up get up get up…[Laughs]".*

In the 29 other interviews, the respondents showed acceptance of the turbines, with 16 expressing strong support of the turbines. This overall sympathetic feeling translates into appellations, including "*Teletubby things*", and even "*Joe and Susan*", after a former Band Chief, who had launched the project, and his wife. Most participants even indicated that they enjoyed having the two turbines on the land. Monique, Band member and long-term resident, was even anticipating their construction: "*I was really excited, I... you know, I really wanted them and a lot of people were excited about it as well. So I wasn't the only one*." For Monique, the turbines have become community landmarks*:* "*They're nice to look at when I... when I come down the hill, and when we come back it's like we're home. It's a marker, we're home*". She describes the turbines as symbols of power, claiming: *"To me it's just like one big fist sticking out like this (gesture)... Two of them".* This was echoed by a non-member married to a Band member who supports the turbines and views them as a '*statement*' from M'Chigeeng to the surroundings.

The turbines supporters evoke various reasons for their support, ranging from economic progress for the community and ecological consciousness to the appeal of financial revenues. John, who actively supports the turbines for ecological reasons, shared:

> *If someone makes a comment about it if I'm wearing a wind turbine shirt, I'll just say well I prefer wind to nuclear. Only takes one of those nuclear plants to destroy our lakes I tell. They usually just shut up.*

In the following quote, Katrina highlights the economic advantages for the community and compares the community's supportive attitude to the widespread opposition to wind turbines in southern Ontario. She attributes the latter to settlers' privilege:

> *I know there's a lot of controversy around wind turbines, and some of that, to me, comes from a place of privilege. A lot of First Nation communities such as our own, we deal with... we deal with poverty and we deal with the social outcomes of poverty, and I saw those wind turbines as an opportunity for our community to strike partnerships in business outside of our community. I don't know if it's so much created jobs here for community members, not extensively, but it is an economic endeavour for our First Nation, so I support them.*

As noted earlier, in 13 interviews participants expressed mere acceptance of the turbines, a willingness to live with them. Some respondents showed indifference or even resignation, like Thomas who admits: *"And it just really wasn't my business, so I just never, like... I was just like nah..."* Nadine echoes this indifference:

> *I don't even know any benefits, I don't even see any benefits. I mean, not that there's anything wrong with it, like, I'm sure whoever's running... running it is... [Laughs] sees the benefits, but I just don't, I don't care. [Laughs]... I... yeah, I just have no interest in it.*

As also expressed by Lucy, '*The attitude in the community is often like: if it goes it goes, if it doesn't it doesn't*". This compromising attitude of I'm-not-happy-but-not-mad-enough-to make-a-fuss is better understood when connected to the findings about project-related communication.

5.4.2 Communication

We probed residents' perceptions of the communication around the wind project before and after construction. Most participants were adamant that they would like more open and culturally appropriate communication about the wind project. There is a general sentiment that the information on the project was flowing more readily before and during the turbines' construction than since commissioning in 2012. There is also a recollection that the early project communication got politicized, which led to misinformation. One contentious point relates to a promise or misunderstanding about the project benefits. Ryan recalls an early community meeting where the prospect of local free electricity generated a lot of enthusiasm:

> *The idea that I got from it was it was a political bargaining chip, and then I remember everyone saying "oh, we're going to get free hydro now, everyone's going to get free hydro" and I'm like, that doesn't sound right.*

Brenda echoes that the project was first introduced in a politics-laden communication campaign, but she recalls the positive intention and vision behind it, vision laid out in a letter sent to the community in the early 2010s by the then Chief.

> *"When this project was first being proposed by Chief Joe Hare, he wasn't Chief at that time, he was running for Chief again I think... he wrote a letter to the community ...it was a*

> *campaign letter basically, but it was, like, 4 or 5 pages long. And he described what he wanted to do, he laid out the plan for what he wanted to do in terms of the windmill development and solar power"*

For Lucy, the communication problem is not tied to political maneuvering. She was simply not interested in energy-related talks and found the communication culturally inadequate:

> *I was first put off by the term energy...Some meetings took place but I never attended for lack of interest. I keep to myself... The information about the wind turbines did not match cultural communication codes, which are oral and hands-on. It did not build trust…it is important to keep in mind the levels of education, literacy, and also past issues of trust.*

Regarding trust, other respondents alluded to rumors and grumblings about land ownership, as well as misunderstandings and tensions about individual and collective benefits from the wind project. The lack of up-to-date information about the project was a recurrent theme throughout the conversations. Jeremy summarizes the general sentiment about communication and transparency that members expect from the Band leadership.

> *They should have an open book policy, or, like, a transparent book... keeping documenting all the wattages and equivalent to money going out and coming in, and what it's bringing in, you know? So that people can track it coming in here into the Band office.*

Communication is an important issue even for less-supportive members, like Agnes, mentioned earlier, who suffers from sleep disorders from the turbines noise. She sees information as a two-way responsibility incumbent on leadership and members:

> *It's up to them (Band members) to get there to know to be informed and when they don't do it and then they point the fingers…Oh Chief and Council did this... oh Chief and Council did that. No, chief and council said okay let's have a community information session so it's up to the individual to get there.*

Lucy noted that her interest in the project waned because of minimal communication: *"I don't see any positive impacts, unless someone explains to me. The responsibility for communication falls on the promoters of the MERE project who put it there."* M'Chigeeng members would undoubtedly value regular and open information appropriate to people's needs and levels of understanding. Nevertheless, while communication about details may be lacking, residents are generally proud of **their** turbines and proud of owning them.

5.4.3 Meanings of community ownership

Ownership is the hallmark of the MERE project. It is cause of great pride in the community and satisfaction of having control, as boldly asserted by Nathan who was involved in the early consultations about the wind project.

> *We had introduced ideas about getting partners to invest with us… and we said... at the time, no, this is something we want to go ahead with, again, for pride, community pride, general just... progressive move....And we were one of the first few Nations... first of the First Nations in Ontario to go solely on our own.*

That pride is shared by all respondents, even though the modalities of that ownership are not clear for everyone. Communication again rears its head in the following quote from Ryan, who notes that there are some grey areas around the ownership model:

> *I think people are indifferent because they don't know exactly who owns what.... I don't think they know about the ownership. I didn't really know about the ownership, I just thought it was some sort of lease, or agreement, or some sort of legal... legalese.*

The lack of information causes some people to be indifferent and others to be suspicious about the contours of ownership, as reported by Frank, a non-member:

> *I've actually heard grumblings about who technically owns the land that they're on and they might be using that to get a taste of it themselves, and that's... also I've heard rumours about that's why they're positioned where they are.*

While communication may be wanting, ownership is overall a cohesive factor in the community around the turbines. Anne values the intergenerational benefit of ownership, stating *"we can generate and have it for our younger ones. The younger generation…But we should have our own... on our... for our reserve…Yeah, like... you know, have our own turbines".* This sentiment is shared by Dennis, who recalls the groundbreaking day and his overwhelming joy at the sight of children playing on the turbine site*: 'that's the way I felt inside, and all my little nephews and nieces were running around up there. And I said …, I said this is theirs. That's theirs I told them.*"

James, a non-member resident, perceives the importance of ownership for M'Chigeeng members and connects it with aspirations of financial autonomy: *"Natives were primary owners of the land, so the notion of ownership is important to them for economic reasons (revenues)."* The importance of community pride is best understood when put in the context of relationships within the community and with neighbors on Manitoulin Island.

5.4.4 Relationships

We asked questions about intra-community relationships as well as M'Chigeeng's relationships with Indigenous and non-Indigenous neighboring communities. While the project gave rise to questions, rumors, and grumblings, intra-community relationships did not seem significantly affected. All participants agreed that the community was able to move on without fractures despite some latent tensions. Likewise, there were some issues with Indigenous communities on the island that, by participants' accounts, got easily resolved. We therefore focus here on relationships with non-Indigenous communities on Manitoulin Island. Some participants did not think that the wind project had any bearing on their relationships with non-Indigenous people. However, most respondents had a lot to say in that regard. One member recalls a supportive reaction from non-Indigenous communities on the island, especially after the top Canadian environmentalist David Suzuki attended the MERE project launch. In contrast, another Band member witnessed strong resentment from non-Indigenous islanders: "*The surrounding communities were very very up against this....They thought it would injure their farm life, in their farm life, with their animals*". Several respondents referred to an infamous incident involving a band member during an appointment with their non-Indigenous dentist on the island; the incident was even reported in a local newspaper (CBC News, 2014). A participant recounts:

> *The dentist told... told him that he wasn't going to work on his teeth because the... M'Chigeeng had the...He didn't like the idea of the windmill being there.... he's not the only one that went, that was... his dentist, there's a few of them, said he didn't want to serve any more M'Chigeeng people.*

Some conversations about the turbines moved to the terrain of colonial oppression and by extension to relationships with non-Indigenous people and the government, as expressed by Brenda:

> *That (the wind project) made us feel better about ourselves and stronger as a community because you know, you've done something, something good has happened and it's going to benefit us for a while and... it's a very... it's a very good feeling for an oppressed people.*

Brenda sees the MERE turbines as a way out of this oppressive relationship.

> *They're angels of... a little bit of economic prosperity. You know, we... most First Nations, we don't... we're poor, and, you know, we don't have many... many options except go begging to the government, and... of course we never liked that, but... it's been... it's a sense of independence.*

The subject of reconciliation between Indigenous and non-Indigenous Canadians was broached as part of the conversation on relationships, either by the researcher prompting the respondent or by the participants themselves. In such a prompted conversation about the topic, Harry relates reconciliation to a healing process needed by both Indigenous and non-Indigenous people, two camps who do not understand each other.

> *Gotta heal together I guess...Indigenous and non-indigenous….To work with each other, 'cause our people don't know what to call the non-Indigenous people and the non-indigenous people don't know what to call the Indigenous people.*

Harry further explained the need for healing, stating that both Indigenous and non-Indigenous Canadians suffered from wounds. Genocide was the wound inflicted to Indigenous people while the wound of non-indigenous people was "*What do you call that? Stealing."*

Before being prompted on the reconciliation issue, Ellen did not see the connection with the turbines. She then expressed her doubt about the intentions of the settler government and the possibility of reconciling Indigenous and non-Indigenous values: *"At the end of the day they don't… want us to be self-sustaining on our own"*. The following account of a Band member's interaction with a settler woman illustrates the changing and often tumultuous relationships between Indigenous and non-Indigenous Canadians, about and beyond energy issues:

> *One lady came and told me... she said you know I... I used to have a lot of respect for you, she says.., I used to come to your pow wow every year and I loved to watch the people dance and... I just loved that, she says. But now you're going to build windmills she says. I don't like that idea at all she says, I don't... I have no more respect for you. I told her, I said you know, Ma'am, I said there's no money in dancing for you at the pow wow. I said.*

Addressing relationships and reconciliation in interviews about wind turbines thankfully did not trigger deeply emotional responses, which might be an artefact of the interviewer also being from a racialized group. However, it brought to light new dimensions that enrich our understanding of community responses to wind turbines as discussed in the following section.

5.5 Discussion

5.5.1 Meaning and ownership

Our study first sought to understand what the turbines mean for members of M'Chigeeng First Nation and how owning the turbines relates to the community's values and goals. It is important

to preface this discussion by recognizing that M'Chigeeng's engagement in renewable energy shares characteristics with other community energy projects, namely that distributional and procedural justice increase acceptance and that project ownership tends to generate community support, not just acceptance of the energy facility (G. Walker & Devine-Wright, 2008; Warren & Mcfadyen, 2010). However, our study also betokens an aspiration that only pertains to Indigenous contexts, that is economic and cultural restoration. Unearthing this aspiration allows understanding the symbolic meaning of the turbines (e.g., *fists, angels of prosperity*) and the importance of ownership for an Indigenous community in a post-colonial context, an aspect that has received little to no attention in the wind energy literature. In M'Chigeeng, the overall supportive attitude translates into minimal talk about the negative impacts of the turbines, such as visual disturbance and noise. Likewise, despite lack of clarity on the distribution of project benefits, M'Chigeeng members remain attached to the idea of a brighter socio-economic outlook for the whole community. In other contexts, the siting process is perhaps the most controversial procedural issue (Gross, 2007; Simcock, 2016). In M'Chigeeng, we found past and current communication to be at the forefront of procedural issues in the community, yet not necessarily decisive in determining the community's response. M'Chigeeng members are clearly aware of the deficiencies in the communication process, both before and after the turbines commissioning and are calling for transparent, comprehensive, and accessible information about the MERE project. Our experiences within our project Advisory Committee tell us that such communication tends to be very visually oriented, including newsletters and websites with meaningful cultural referents like the seven grandfather teachings and the medicine wheel[9]. However, the communication deficiencies are not sufficient to trigger the type of opposition and resistance observed in other parts of Ontario, which confirms that procedural aspects "only tell part of the story" ((C. Walker

[9] Early in our research partnership we learned how details matter. For example, the medicine wheel has a particular order for M'Chigeeng clockwise being white, yellow, red then black and we had drawn an early conceptual diagram with the colours out of order. We appreciate that constant and respectful communication is essential to mitigate and avoid such issues.

& Baxter, 2017b, p. 167), p.167). We argue that more of the story about the community's response is told through the lens of relationships.

5.5.2 Relationships, recognition, and restoration

Attention to relationships informs our third research question: To which extent does M'Chigeeng's engagement in renewable energy portend a redefinition of relationships and power in the settler Canadian society? We connect the dimension of relationships to the community's aspiration for restoration and recognition as means to counter centuries of dispossession. Harmonious relationships among beings and responsibilities are notions embedded in Anishinaabek identity and knowledge systems ((McGregor, 2018a, p. 282), p.282). For that matter, relationships are essential aspects in this study, and also front and center in Canada's project of reconciliation.

Interview participants painted their intra-community interactions and relationships with neighboring communities, both Indigenous and non-Indigenous. As seen in the previous section, little was said about neighboring Indigenous communities but discussing relationships with settler neighbors brought up deeper topics related to historic marginalization of Indigenous communities, their manufactured dependence on the federal government ("*we don't have many... many options except go begging to the government")*, and the hope of a different collective future ("*gotta heal together I guess...Indigenous and non-indigenous").* Such statements support the idea of restoration and our position that the engagement of Indigenous communities like M'Chigeeng First Nation in renewable energy does portend a redefinition of relationships and power in Canada. With basic socio-economic needs in Indigenous reserves in Canada being routinely suppressed by an unfair colonial funding system, community-owned energy projects have a strong potential of revitalization and restoration (Hoicka & MacArthur, 2018; Shewell, 2002). Our findings align with previous work connecting Indigenous communities' motivations to engage in renewable energy with aspirations to autonomy and economic betterment (Lowan-Trudeau, 2017; Stefanelli et al., 2019). Whilst interviews revealed that there are in the community pockets of "*if it goes it goes, if it doesn't it doesn't"* attitudes and some latent tension around the wind project, we argue that the collective longing for restoration is a determinative dimension in the community's support for the wind energy project. Testament to this longing for restoration are interview

phrases such as "*good feeling for an oppressed people", "angels of economic prosperity", "healing*", and more. This collective aspiration can explain why intracommunity tensions are contained while communication channels are being perfected and benefits more clearly defined for Band members. As the community strives to redress colonial harms on their own terms, the two wind turbines, "*two fists*" standing on top of the bluff for the neighboring islanders to watch, are "*a statement*" of power as expressed by the interview participants.

There are two main limitations of this research: we studied a single case and did not follow an Indigenous methodology. Generally used for exploratory research, single cases are sometimes criticized for being overcast by the researchers' interpretative work and not being prone to generalization (Flyvbjerg, 2006). However, "the case study is well suited for identifying "black swans" because of its in-depth approach: What appears to be "white" often turns out on closer examination to be "black" " (Flyvbjerg, 2006, p. 228). Further, community-based research does not necessarily lend itself easily to multi-cases analyses because of the time necessary to build trust and rapport between community members and researchers. We acknowledge that motivations for developing renewable energy projects are not identical for all Indigenous communities. There is thus ground to expand the understanding of Indigenous-owned renewable energy, possibly by including more cases and examining various scales of energy infrastructure, from small to large. Future research could also use quantitative means to reach a larger swath of the community population, both on and off reserve, and further probe the aspiration of self-determination in renewable energy projects. More importantly, to address our second limitation, we would welcome more research delving into Indigenous epistemologies, which as observed earlier, was not done in this study. Despite its limitations, our study allows us to concur with Smith and Scott (2021, p. 3) that a "real promise exists in transforming energy generation/power relations through Indigenous ownership of renewable energy projects insofar as Indigenous communities initiate and control those projects, govern them and benefit from them collectively, and operate them, without state interference, according to their own legal and political orders." This paper speaks to this promise and reaffirms the importance of attending to place histories in the understanding of communities' responses to renewable energy.

5.6 Conclusion

Our interviews reveal that, beyond procedural and distributional justice, restorative justice is a key dimension in M'Chigeeng community's acceptance of wind turbines on their traditional lands. This paper makes an important empirical contribution to the community wind energy and energy transitions literatures by bringing attention to underrepresented contexts such as Indigenous communities who feel the brunt of historical and ongoing colonialism. In Canada and other settler countries, capturing the full meaning of community renewable energy and achieving justice in the energy transition requires attending to colonial legacies by daring to confront Eurocentrism. Ontario's GEGEA provided financial incentives following a capitalist colonial model, without necessarily balancing the need to deploy renewable energy and the respect due to communities' ways of knowing and being. Attending to restorative justice and recognition justice along with procedural and distributive justice can guide future Indigenous community-based renewable projects at the provincial or national level. This implies attending to Indigenous models and choices of societal development and not reducing them to dance performances at powwows.

Chapter 6

6 Community acceptance of wind turbines in M'Chigeeng First Nation, Canada: Exploring ownership, pride, relationships, and reconciliation

Authorship when finalized: Carelle Mang-Benza, Jamie Baxter, Jeff Corbiere

Abstract

This paper brings attention to Indigenous communities in the social acceptance and energy transition literatures, attention warranted in settler countries like Canada where colonization pushed Indigenous people to the margins of society. As Canada's federal government seeks to reconcile Indigenous and non-Indigenous citizens, Indigenous communities across the country are taking a leading role in the renewable energy sector. M'Chigeeng First Nation is a unique case of community energy as, since 2012, they operate as sole owner two wind turbines in Ontario, a province that since then stopped new wind energy development. Our survey of 161 M'Chigeeng members shows that 58% of respondents have a supportive attitude towards their turbines despite concerns about project-related communication and tensions in and around the community that are significantly correlated to the current attitude. We argue that the pride of owning the turbines is both a mediating factor and an outcome of the project and that improving communication on such things as benefits sharing may improve local relationships. The survey highlights a significant correlation between the attitude towards the turbines and reconciliation: 36% of respondents consider the energy policies supporting the wind project as a step toward reconciliation, while 16% do not, and 48% do not know. While improving relationships between Indigenous and non-Indigenous people appears high on the national political agenda, the findings alert to nuances in members' perspectives on relationships and their unique relationship with the land. This study calls for, not only grounding of place-based histories and colonial legacies in the social acceptance and energy transition literatures, but also confronting the worldviews that steer the current low-carbon transition in Canada.

6.1 Introduction

In a recent Grand Economic Circle gathering the Assembly of First Nations and the provincial government of Quebec, an Indigenous leader had this to say about development ventures in Indigenous territories: “Too often when looking at economic development (it’s) as an issue of amassing wealth, amassing gain, and I think that perspective has to be readjusted to more of a First Nations’ approach where it’s more wholistic”, adding that “seven generations forward was the benchmark for sustainability” (Narine, 2021).

The dissonance between Indigenous and non-Indigenous worldviews is front and center in Canada’s public sphere, a space where economic, political, and environmental matters are increasingly discussed alongside issues of relationships between settler and Indigenous Canadians. Canada, recognizes the participation and leadership of Indigenous communities in the energy transition, even broadcasting this participation as an opportunity for reconciliation (Generation Energy Council, 2018; MacArthur et al., 2020). Appearing high on the agenda of the current federal government, reconciliation is defined as an improvement of the relationships between Indigenous and non-Indigenous Canadians tarnished by centuries of colonialization (Mang-Benza et al., 2021; Truth and Reconciliation Commission of Canada, 2015b).

The Canadian Constitution recognizes three categories among the Indigenous peoples making about 5% of the national population according to the 2016 census: Inuit, Métis, and First Nations, the latter being the largest category. Across the country, First Nations are increasingly turning to renewable energy projects as community development ventures. However, the community energy literature, dominated by Eurocentric and settler North American worldviews, grants little attention to Indigenous peoples. In the Canadian context, this omission is problematic for at least three reasons. First, a growing number of Indigenous communities are becoming partial or full owners of renewable energy projects in Canada (Hoicka et al., 2021; A. A. Smith & Scott, 2021). Second, authors attentive to justice are voicing that the low-carbon energy transition might reproduce the socio-economic inequalities of the fossil fuel era unless the concerns of historically marginalized communities are addressed (Bacchiocchi et al., 2022; Mang-Benza & Baxter, 2021). Third, Canada shares the global ambition to reach net-zero by 2050 which rests on projections of exponential deployment of renewable energy technologies (IEA, 2021a). A recent report of the International Energy Agency on the pathway to reach net zero (NZE), i.e., to balance emission

and absorption of greenhouse gas (GHG), states: “there is an annual market opportunity that rises well above USD 1 trillion by 2050 for manufacturers of wind turbines, solar panels, lithium-ion batteries, electrolysers and fuel cells“ (IEA, 2021a, p. 22). However, these projections risk not materialize unless challenges of community acceptance are addressed in a wide array of communities. There is thus much optimism for community ownership models that are associated with higher acceptance levels given the locally accrued benefits (Wolsink, 2013). Full or partial ownership is an appealing avenue for many Indigenous communities whose traditional lands hold abundant renewable energy resources and who seek to assert their economic autonomy and cultural identity amidst colonial states (Bacchiocchi et al., 2022).

Extending recent qualitative work in the same community (Mang-Benza & Baxter, 2021), this paper uses a quantitative survey to explore attitudes towards wind turbines in M’Chigeeng First Nation in Ontario and test the generalizability of interview findings in that community. We test the following hypotheses developed from our qualitative findings:

- H1. The majority of M’Chigeeng members have a positive attitude towards their two turbines
- H2. Relative to on-reserve members, off-reserve members have a less positive attitude about the wind energy project. Behind this hypothesis is the assumption that First Nation members living off-reserve, especially in urban settings, do not have the same attachment to activities or projects developed on their traditional lands.
- H3. Negative attitudes towards the turbines come from dissatisfaction with:
    - H3.1. Past planning process
    - H3.2. Current communication gaps.
    - H3.3. Lack of information about the project benefits
    - H3.4. Perceived lack of fairness in the distribution of project financial benefits
- H4. There is a majority community pride in the project
- H5. Concerns about relationships are significantly correlated to attitudes toward the wind energy project
- H6. Reconciliation is not a significant factor in the support for the wind energy project.

The following two sections offer some context around the above hypotheses. Section 2 presents the Canadian context of energy transition and decolonization and reviews the literature on wind energy project social acceptance. Section 3 provides key background information on M'Chigeeng First Nation and Section 4 introduces the methodology. Section 5 presents the survey findings, while Section 6 discusses the results, concluding with policy implications relevant for Canada and other settler countries.

6.2 Canada's double imperative: decolonization and decarbonization

In recent years, Canada has been attempting to navigate two structural transformations, on the one hand, confronting its colonial history and, on the other hand, reducing the carbon intensity of its economy.

6.2.1 Decolonization: the reconciliation journey

Colonizers intentionally made Indigenous communities invisible in settler countries, causing them to form within first-world countries a fourth-world marked by much lower living standards than those of their fellow non-Indigenous citizens (Mazel, 2014; United Nations Department of Economic and Social Affairs, 2016; Veracini, 2014). Canada is one of such settler countries where, from the 15th century, European settlers initiated a socio-political engineering to produce a white-majority society. By gradually supplanting and erasing Indigenous people's presence, the colonial project equated to cultural and physical genocide, leaving a shameful birth mark on the Canadian confederation (The National Inquiry into Missing and Murdered Indigenous Women and Girls, 2019a; Veracini, 2014). Over 150 years later, Canada is barely starting to confront its colonial past and decolonize its institutions. The release in 2015 of the national Truth and Reconciliation Commission report was a watershed moment in the journey to improve relationships between the minority Indigenous population and the non-Indigenous majority, a journey called reconciliation that reaches into all socio-economic sectors, including the energy sector. To be clear, the calls to action do not explicitly mention the energy sector but focus more on social outcomes like education, health, language, and culture, except for Call 92 on business and reconciliation, asking "the corporate sector in Canada to adopt the United Nations Declaration on the Rights of Indigenous Peoples as a reconciliation framework and to apply its

principles, norms, and standards to corporate policy and core operational activities involving Indigenous peoples and their lands and resources" (Truth and Reconciliation Commission of Canada, 2015c, p. 10). The combination of Canada's leading position as a resource economy and abundance of energy resources on Indigenous territories makes the investigation of the two imperatives of energy transition and reconciliation a most pertinent one (Hoicka et al., 2021; McGregor, 2018b; Stefanelli et al., 2019).

6.2.2 Decarbonization: energy transition and social acceptance of wind energy

Parallel to reconciliation, Canada's current federal Liberal government is involved in an energy transition reflecting its ambition to address climate change. The 2021 Canadian Net-Zero Emissions Accountability Act enshrines in legislation the ambition to reach net-zero emissions by 2050 (Government of Canada, 2020). This energy transition can be transformative for a country with a very lucrative energy sector, high per capita GHG emissions, and very diverse energy systems across its provinces and territories (Donald et al., 2021; Hoicka & MacArthur, 2018). The province of Ontario, heartland of Canada and home to the largest Indigenous population, is an energy leader that started transforming its energy mix in the mid-2000s. Starting in the early 2000s, the province started phasing out coal-fired electricity and phasing in renewables, wind energy in particular, and now hosts one third of the wind installed capacity in the country (Canada Energy Regulator, 2021). The speed of wind expansion in the province was slowed in part by concerned citizens groups from 2013, then abruptly stopped by a newly elected conservative government in 2018 (Walker et al. 2018). The demise of renewable energy deployment strategies in Ontario corroborates what social scientists have been suggesting since the late 1980s (Bosley & Bosley, 1988; Gipe, 1993; Rand & Hoen, 2017), that is the lack of social acceptance is a threat to large-scale wind energy expansion.

Researchers dedicate significant attention to community acceptance, one of the three dimensions of social acceptance alongside socio-political and market acceptance (Wüstenhagen, Wolsink, & Burer, 2007). Much of the community acceptance research has shifted away from simplistic Not-In-My-Backyard (NIMBY) explanations to rather connect opposition to physical impacts of turbines (land occupation, noise, vibrations, etc.) and economic impacts on property values and tourism (Baxter et al., 2020; Diógenes et al., 2020; Rand & Hoen, 2017). Many scholars

established and framed procedural and distributive justice as key predictors of community acceptance (Gross, 2007; C. Walker & Baxter, 2017a, 2017b). Others have explored how acceptance is connected to the business development model, especially positively to community-owned wind projects because they tend to involve inclusive siting processes and fairer local distribution of project profits (Warren & Mcfadyen, 2010). This was the impetus for Baxter et al. (2020) to highlight the importance of investment scale, positing that local investment is more favourable to residents than distant and particularly foreign investment. Others have pointed out the importance of psycho-spiritual factors such as religious beliefs (Fischhendler et al., 2021; Kim et al., 2018) and place attachment (Devine-Wright & Howes, 2010). Speaking to the latter, authors stress that, "understanding the place attachment issues as well as technology perceptions of stakeholders can explain acceptance (or opposition) levels, and neglecting these linkages risks 'exacerbating negative symbolic interpretations' " (Hall et al., 2013, p. 207). However, the extensive acceptance literature, and related energy transition research alike, remains Eurocentric and settler-centric in North America in terms of analytical lens (Rand & Hoen, 2017). The analysis of historical contexts and colonial legacies, especially in Indigenous communities who have a unique attachment to their land, remains an under researched area (Hoicka & MacArthur, 2018; Sovacool, 2014; Stefanelli et al., 2019). This is problematic given that, in North America, abundant renewable energy resources are located on Indigenous territories (Hoicka et al., 2021; Zárate-Toledo et al., 2019; Zimmerman & Reames, 2021). This lack of attention bears the risk of ignoring the reproduction of patterns of injustice in the emerging energy economy (Lehmann & Tittor, 2021) and depriving society from the contributions of Indigenous peoples who, around the world, have been lauded as having an impressive track record of sustainable management of lands and resources (Reed et al., 2021).

6.2.3 Where the two imperatives meet

In Canada, the convergence of the imperatives of energy transition and reconciliation is also captured in a public discourse casting the former as an opportunity to advance the latter (Generation Energy Council, 2018; Mang-Benza et al., 2021). The full extent of that opportunity needs further investigation but the increasing number of Indigenous communities engaging in energy schemes as full or partial owners, especially in Ontario, calls for close attention to this discourse (Savic & Hoicka, 2021; Scott, 2020; Stefanelli et al., 2019).

The province of Ontario encouraged Indigenous leadership in renewable energy through its 2009 Green Energy and Green Economy Act and particularly through its Feed-in-Tariff programme. The programme awarded generous long-term electricity purchase contracts, supplemented by premiums for renewable energy projects demonstrating Indigenous participation (Donald et al., 2021; Fast et al., 2016). While most of such projects are at least partially owned by non-Indigenous private companies, M'Chigeeng First Nation completed in 2012 its 4 MW Mother Earth Renewable Energy (MERE) project on its traditional territory on Manitoulin Island as sole full owner (Hoicka et al., 2021; A. A. Smith & Scott, 2021)

6.3 M'Chigeeng First Nation and the MERE project

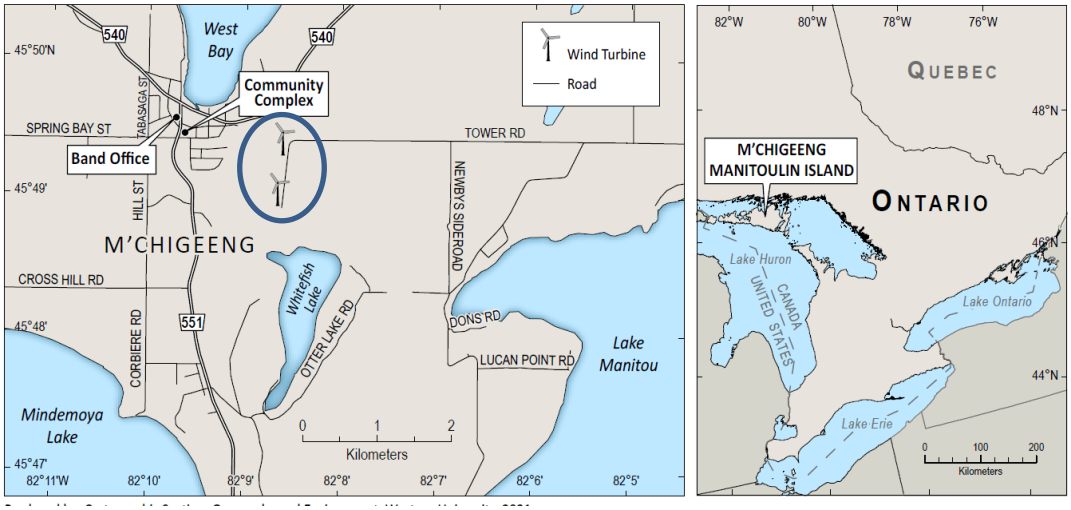
Among the approximately 1.7 million Canadians who identify as Indigenous, First Nations form the largest group with 977,235 people, represented by 630 bands now called Nations (StatCan, 2016b). Since the birth of the Canadian confederation, the British Crown has been setting aside for each recognized First Nation a tract of land (called reserve) for their members' use. Each echelon of government, from Indian agents to legislative and judicial powers, ensured a hermetic separation between reserves (spaces where Indigenous people belong) and spaces suitable for European settlement (K. Wilson & Peters, 2005). In 1901, a mere 5% of First Nations members resided outside reserves; this figure jumped to 66% a century or so later (StatCan, 2016a).

Limited employment opportunities, underfunded education programs, and poor housing quality on reserves are some of the reasons behind the fact that about two-thirds of First Nations members have moved to urban centers (Heaman et al., 2010; Lamb, 2014; Wrathall et al., 2020). Richards (2018) and Lamb (2014) observe that Indigenous people living off-reserve "fare better than those on-reserve in terms of education, employment and income", though not as well as non-Indigenous Canadians. While life in urban centres induces lifestyle changes, Indigenous people living off reserve don't necessarily lose their cultural identity or connection to their home community (Heaman et al., 2010; Wrathall et al., 2020). In fact, Wilson and Peters (2005) interviewed Anishinabek residents in urban spaces in Ontario who consider their relationship to *Shkagamik-Kwe* (Mother Earth) vital for *mno bmaadis*, i.e. living a good and balanced life. Though urban First Nation members may struggle to maintain a connection to Mother Earth in cities, they resort to various strategies to maintain the relationships that are essential to Anishinabek identity,

including moving between cities and reserves, building new urban cultural spaces where they can conduct ceremonies, and bonding with other Indigenous people (K. Wilson & Peters, 2005).

M'Chigeeng First Nation (Figure 6-1) is part of the Anishinaabeg group, one of the largest Indigenous groups on Turtle Island, now called North America. Anishinaabe worldviews emphasize connections to the land, responsibility, and mutually beneficial relationships between human and nonhuman creatures (Schaefer et al., 2021). In M'Chigeeng First Nation, about two-thirds of the 2695 registered members live off-reserve (Indigenous and Northern Affairs Canada, 2021). This means that they may not have any experience of living close to the MERE wind turbines, depending on when they moved. However, as explained earlier, their likely cultural connections to the reserve make their voices important for our investigation.

Figure 6-1. Location of the Mother Earth Renewable Energy (MERE) wind project



On behalf of the Band, M'Chigeeng Chief and Council, sole owner of the turbines, established an economic development corporation, HIAH Corporation, to manage the operation of the 4-MW MERE project. The project operation started in 2012 with a 20-year contract (2012-2032) signed under the Feed-in-Tariff programme (Fast et al., 2016) to sell electricity to Ontario's main grid. Economic development corporations like HIAH have become common economic drivers in Indigenous communities, using the nations' land-based resources as springboard to generate own-source revenues and promote social, economic, and cultural revitalization (Anderson et al., 2006; Savic & Hoicka, 2021). Renewable energy development ventures are often described as offering

both economic self-sufficiency and a more sustainable way of living on the land (Rakshit et al., 2018). Yet there is little empirical research about how such projects are interpreted by community members, especially given the importance of human interrelationships and holistic involvement of non-human life in the worldviews of most Indigenous communities (Cooke & O'Sullivan, 2014; Kant et al., 2014). M'Chigeeng leadership has been forward-thinking about exploring how the wind project is perceived within the community, years after the start of operations. This is the context behind our research partnership.

6.4 Method

This paper presents the findings from a 2021 survey in M'Chigeeng First Nation – approximately 10 years after the turbines started generating electricity for the grid. The survey instrument[10] was developed as part of a larger project exploring the meanings of community wind energy, then customized based on key themes gleaned from 32 interviews conducted in M'Chigeeng in 2019 (Mang-Benza & Baxter, 2021) and control variables from the social acceptance literature. Paper surveys were sent by mail in three rounds to all voting members[11] of M'Chigeeng First Nation living on and off reserve, so no sampling was necessary. We made extensive use of M'Chigeeng's monthly newsletter to remind members of the survey and a participation lottery for $100 gift cards around the times of the three mailings between May and October 2021 (N1=1408, N2=1408, and N3=1367). Incentives and multiple mailings are known to be effective ways to increase participation in surveys (Dillman, 1991; Holtom et al., 2022). We received 161 questionnaires back, which represents an average response rate of 11.6%. In similar attitude surveys of people living in the vicinity of wind turbines, we found response rates of 17.9% in the United States (Hoen et al., 2019) and 17.8% in Ontario and Nova Scotia (C. Walker & Baxter, 2017a). Though

[10] Found in the Appendices and on the project website

[11] The voters' list was only accessible to authorized staff at M'Chigeeng Band Office who labelled the survey packages.

our rate is on a low-end, we were reassured by Band Office staff that 11% is comparable to response rates observed in past community surveys on reserve.

Table 6-1 presents the demographic information of survey respondents. Examining census data available for M'Chigeeng reserve residents (Statistics Canada, 2016), we find that women, adults over 45, people with college education, and fully employed people are overrepresented among our respondents. All these sociodemographic characteristics are positively associated with support for turbines in the non-Indigenous empirical literature which would suggest a bias in this sample towards positive attitudes towards the MERE wind energy project. In such cases weighting is often applied to variables. However, in our case, except for the employment status, none of these demographic variables is significantly correlated ($p=0.003$) with the dependent variable – current attitude towards the turbines. Moreover, there is no publicly available comparative sociodemographic data for the whole M'Chigeeng membership, including on and off-reserve, so no weighting was applied.

Table 6-1. Characteristics of survey respondents

	Count (%) on-reserve)	Count (% of Off-reserve)	Count (% all respondents)	Count (% of reserve residents aged 20+)[1]
Respondents	93 (100%)	64 (100%)	157 (98%)	630 residents
Men[2]	33 (35%)	22 (34%)	55 (34%)	315 (50%[2])
Women[2]	55 (59%)	41 (64%)	96 (60%)	315 (50%)
Gender not specified	3 (3%)	0 (0%)	3 (2%)	
Age below 45	29 (31%)	18 (28%)	47 (29%)	285 (45%)
Age 45+	59 (63%)	45 (70%)	104 (65%)	345 (55%)
Education high school and below	40 (43%)	29 (45%)	69 (43%)	330 (52%)
Education college and above[3]	50 (54%)	34 (53%)	84 (52%)	285 (45%)[3]
Employed full time	34 (37%)	31 (48%)	65 (40%)	195 (31%)

[1] Information taken from the 2016 census data for residents aged 20+ (Statistics Canada, 2016)
[2] Across the total reserve population of 880, there are 460 male and 425 female members
[3] Includes CEGEP, college and university certificates and degree

Note: Total returned questionnaires N=161, with some missing entries

Table 6-2 presents the data fitting the scope of the six hypotheses. We analyzed the responses in SPSS version 28 0.1.1, using frequencies to describe the variables and bivariate correlations to examine associations with current attitude as the dependent variable (DV), taken from the survey question "What is your current attitude toward the local wind project?" and measured on 5-point Likert scale from very positive to very negative.

Table 6-2. List of key variables

Variable	Variable measure	Spearman[1]
H1. The majority of M'Chigeeng members have a positive attitude towards their wind turbines.		
DV-"What is your current attitude toward the local wind project?"	"1" very negative; "2" negative; "3" neutral; "4" positive; "5" very positive	
H2. Relative to on-reserve members, off-reserve members have a less positive attitude about the turbines.		
Do you currently live:	"1" On-reserve; "2" Off-reserve	0.026^{NS}
V2-I feel a strong affinity (or connection) with M'Chigeeng	"1" Strongly disagree; "2"; Disagree; "3" Neutral; "4" Agree; "5" Strongly agree	.239**
H3.1 Negative attitudes towards the turbines come dissatisfaction with past planning process		
V3.1-Index_SatisfactionPlanning process	"7" Strongly disagree; "14" Disagree; "21" Neutral; "28" Agree; "35" Strongly agree (i.e., high satisfaction)	.536**
H3.2 Negative attitudes towards the turbines come from current communication gaps.		
V3.2- I currently have access to adequate information about the wind project	"1" Strongly disagree; "2" Disagree; "3" Neutral; "4" Agree; "5" Strongly agree	.380**
H3.3 Negative attitudes towards the turbines come from lack of information about project benefits		
V3.3 - Index_BenefitsInformation	"2" Disagree; "4" Neutral; "6" Agree (i.e., high satisfaction)	.346**
H3.4 Negative attitudes towards the turbines come from perceived lack of fairness in the distribution of project financial benefits		
V3.4 - Index_BenefitsDistribution	"2" Disagree; "4" Neutral; "6" Agree (i.e., high satisfaction)	.432**
H4: There is majority community pride in the project		
V4.1 - Which of the following best describes your strongest reaction when you first heard about your local wind project?	Binary recoding as "1" Positive and "2" negative	-.529**
V4.2 - Which of the following best describes your strongest reaction when you first saw the turbines constructed?	Binary recoding as "1" Positive and "2" negative	-.575**
V4.3 - Which of the following best describes how you feel about the wind project today?	Binary recoding as "1" Positive and "2" negative	-.632**
V4.4-The development process in Scenario 2 (community-led) makes me feel	Binary recoding as "1" Positive and "2" negative	-.273**

H5: Concerns about relationships are significantly correlated to attitudes toward the wind energy project		
V5.1 - The wind project was an object of debilitating conflict/tensions in M'Chigeeng community	"1" strongly disagree; "2" disagree; "3" neutral; "4" agree; "5" strongly agree	-.260**
V5.2 - The wind project is an object of debilitating conflict/tensions in M'Chigeeng community	Same as above	-.327**
V5.3 - The wind project was an object of debilitating conflict/tensions with neighbouring Indigenous communities?	Same as above	-.203*
V5.4 - The wind project is an object of debilitating conflict/tensions with neighbouring Indigenous communities?	Same as above	-.310**
V5.5 - The wind project did disrupt animal and plant life	Same as above	-.249**
V5.6 - The wind project is still disrupting animal and plant life	Same as above	-.437**
H6: Reconciliation is not a significant factor in the support for the wind energy project		
V6.1-The wind project was an object of debilitating conflict/tensions with neighbouring non-Indigenous communities?	"1" strongly disagree; "2" disagree; "3" neutral; "4" agree; "5" strongly agree	-0.058^{NS}
V6.2-The wind project is an object of debilitating conflict/tensions with neighbouring non-Indigenous communities?	"1" strongly disagree; "2" disagree; "3" neutral; "4" agree; "5" strongly agree	-0.261**
V6.3-MFN Band owns the wind turbines. Does this ownership affect the relationship with neighbouring non-Indigenous communities?	"1" Yes; "2" No; and "3" Don't know	-0.206*
V6.4-The provincial policies which support the turbine income to M'Chigeeng is a step on the way to Indigenous-Settler reconciliation"	"1" Yes; "2" No; and "3" Don't know	-0.243**

Note
[1] Correlation with the dependent variable current attitude: NS = not significant, * p<0.05, ** p<0.01

6.5 Results

6.5.1 Overall positive attitude towards the turbines (H1)

The results support the first hypothesis, as a majority (58%) of respondents have a positive attitude towards the turbines. Figure 6-2 presents frequencies for the dependent variable, a single measure of current attitude on a Likert scale. Of the 159 people who responded to this question, only 5% and 13% of respondents have a very negative and negative attitude, 25% have a neutral attitude, while 36% and 22%

are positive and very positive about the turbines. Given the sample biases described above, it is somewhat surprising not to see a higher proportion of positive attitudes.

Figure 6-2. What is your current attitude toward the local wind project? (% of respondents, n=159[12])

6.5.2 Off-reserve members have a less positive attitude about the turbines (H2)

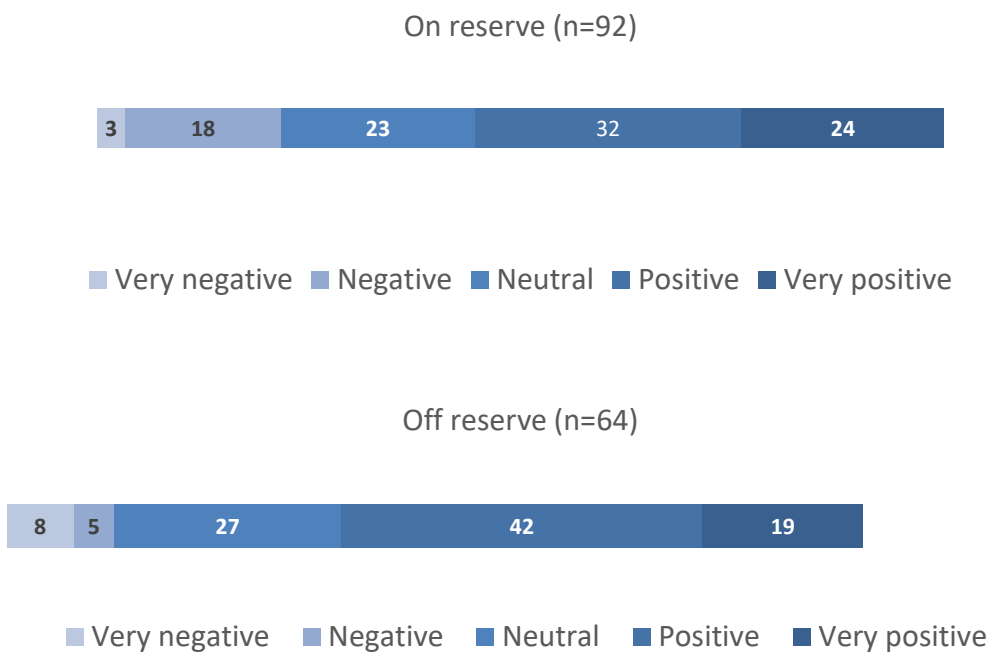
We hypothesized that off-reserve members might be less positive towards the turbines than on-reserve members, given their distant lived experience and perhaps greater exposure to and influence of anti-wind discourses in some parts of Ontario. Our findings do not support this idea, the opposite in fact (see Figure 6-3). The positive and very positive attitudes toward the turbines are shared by 56% of on-reserve respondents and 61% of off-reserve respondents, both similar to the value of 58% when off and on reserve respondents are considered together.

We tested the relationship between the current attitude towards the turbines and the place of residence with a chi square test and found no significant difference (p=0.061). This seems to indicate that members' physical distance to the reserve and turbines may not be construed as social distance from community connections and concerns. We further tested this and found no significant correlation (p=0.207) between the *place of residence* and the *level of affinity with M'Chigeeng First Nation*. This means that some members living off reserve may feel a strong

[12] The number of respondents varies across the findings because some questions were unanswered.

affinity with the community while, inversely, members living on the reserve may not. However, the level of affinity is strongly correlated with the current attitude towards the turbines (p=0.0003, see Table 6-2 under H2).

Figure 6-3. Comparison of current attitude towards the wind turbines between on and off reserve members (% of respondents)



Note: The discrepancy in number of respondents between Figure 2 and Figure 3 is due to the fact that some people did not indicate their current residence.

6.5.3 Negative attitudes towards the turbines come from dissatisfaction (H3)

6.5.3.1 Dissatisfaction with past planning process (H3.1)

The data strongly support the idea that dissatisfaction with the planning process is correlated with positivity to the MERE wind energy project. The survey questionnaire contained seven interrelated measures describing the members' experience with the planning process which we transformed into an index. The measures were recoded to contain five categories by transforming entries marked 6 as missing values. Seeking to merge the seven variables of interest into a single measure describing the satisfaction with the past planning process, we ran an internal reliability

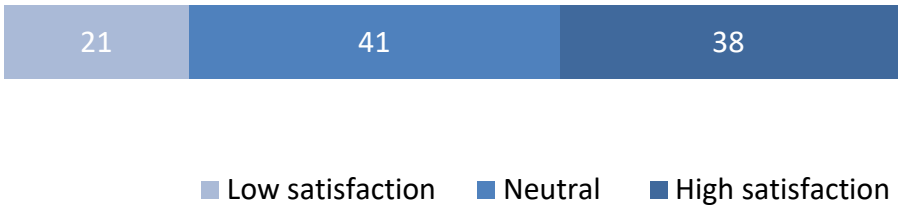
test, Cronbach's Alpha (see Table 6-3). The high Cronbach's Alpha value of 0.921, indicating strong internal reliability, supports forming what we called the *index of satisfaction with planning process*. High values of this index represent high satisfaction with the process. This index was built by adding the value of each item and made to follow an expanded Likert scale with measures going from 7 (Strongly Disagree) to 35 (Strongly Agree). It is worth noting a substantial drop in the n value to 82 as several people did not complete at least one of the items.

Table 6-3. Mean, internal reliability test (Cronbach's alpha)

	Mean	Cronbach's Alpha if item deleted
Personal meaningful participation in planning	3.02	0.90
Personally attended one or several meetings	3.06	0.92
The planning process was open and transparent	3.35	0.89
The planning process was fair	3.35	0.90
Members were able to meaningfully influence outcome	3.05	0.90
Construction went on smoothly	3.52	0.91
Adequate amount of information during planning/construction	3.07	0.90
Cronbach's Alpha	0.921	
Average value of means	3.206	

We built Figure 6-4 by grouping all index values between 18 and 24 as neutral, values lower than 18 as low satisfaction and values higher than 24 as high satisfaction. As per hypothesis H3.1, there is a significant correlation ($p<0.001$) between this index and the *current attitude*.

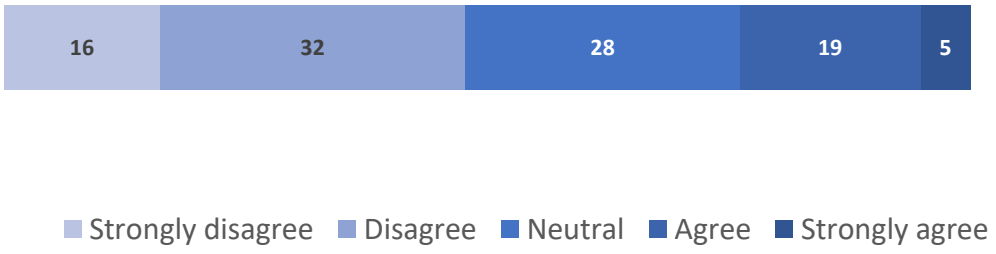
Figure 6-4. Index of members' satisfaction with the planning process (n=82) - % of respondents



6.5.3.2 Dissatisfaction with current communication (H3.2)

The findings support H3.2 in that members are not satisfied with the current communication about the MERE project (see Figure 6-5). Of the respondents, 48% strongly disagree or disagree that they are satisfied with current communications, while only 24% agree with the statement, "*I currently have access to adequate information about the wind project"*, which has a significant correlation with the current attitude towards the turbines (Spearman=0.380; p <0.001, see Table 6-2). Putting together figures 6.2, 6.4, and 6.5 highlights the apparent contradiction between support for turbines and discontent about the procedural aspects of the project, both past planning and present.

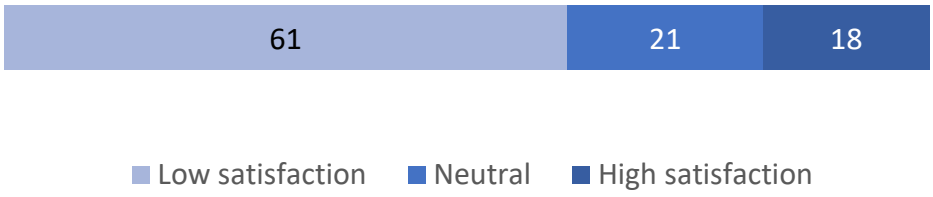
Figure 6-5. I currently have access to adequate information about the wind project (n=155) - % of respondents



6.5.3.3 Dissatisfaction with information about project benefits (H3.3)

The findings support the hypothesis that members are not satisfied with the information about benefits, and this is significantly correlated with the attitude towards the wind project. We first tested the internal reliability of two interrelated measures describing the members' perception of the information shared about project benefits, namely "*I feel that I have adequate information about the financial benefits of the project"* and "*I feel that there has been sufficient discussion about the project benefits*". We then recoded these variables to have three measures, disagree "1", neutral "2", and disagree "3" and produced an index of satisfaction with benefits information by adding the two variables. In Figure 6-6, neutral satisfaction is attributed to round measures of "4" (i.e., 2+2). Most respondents (61%) are dissatisfied with the information available about project benefits (Figure 6-6). This index is strongly correlated with the current attitude towards the turbines (Spearman=0.346; p <0.001,Table 6-2).

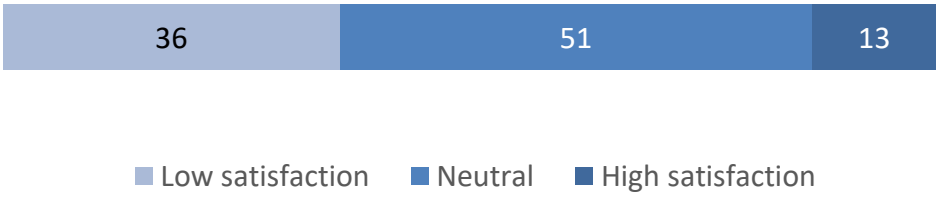
Figure 6-6. Index of satisfaction with benefits information (% of respondents)



6.5.3.4 Dissatisfaction with fairness of benefits distribution (H3.4)

Similarly, members are not satisfied with the fairness of project benefits, which supports hypothesis H3.4. The index of benefits distribution measures members' perception of fairness as it relates to the amount and distribution of benefits. The index is also formed by adding two variables, "*The amount of community-level benefits received from the wind project is fair*" and "*The benefits from the local wind energy project are fairly distributed between members of the community*". Figure 6-7 shows that the majority (51%) of respondents have a neutral level of satisfaction about the fairness but 36% are clearly dissatisfied. This index is strongly correlated with the current attitude towards the turbines (Spearman=0.432; p <0.001, Table 6-2).

Figure 6-7. Index of satisfaction with benefits fairness (% of respondents)

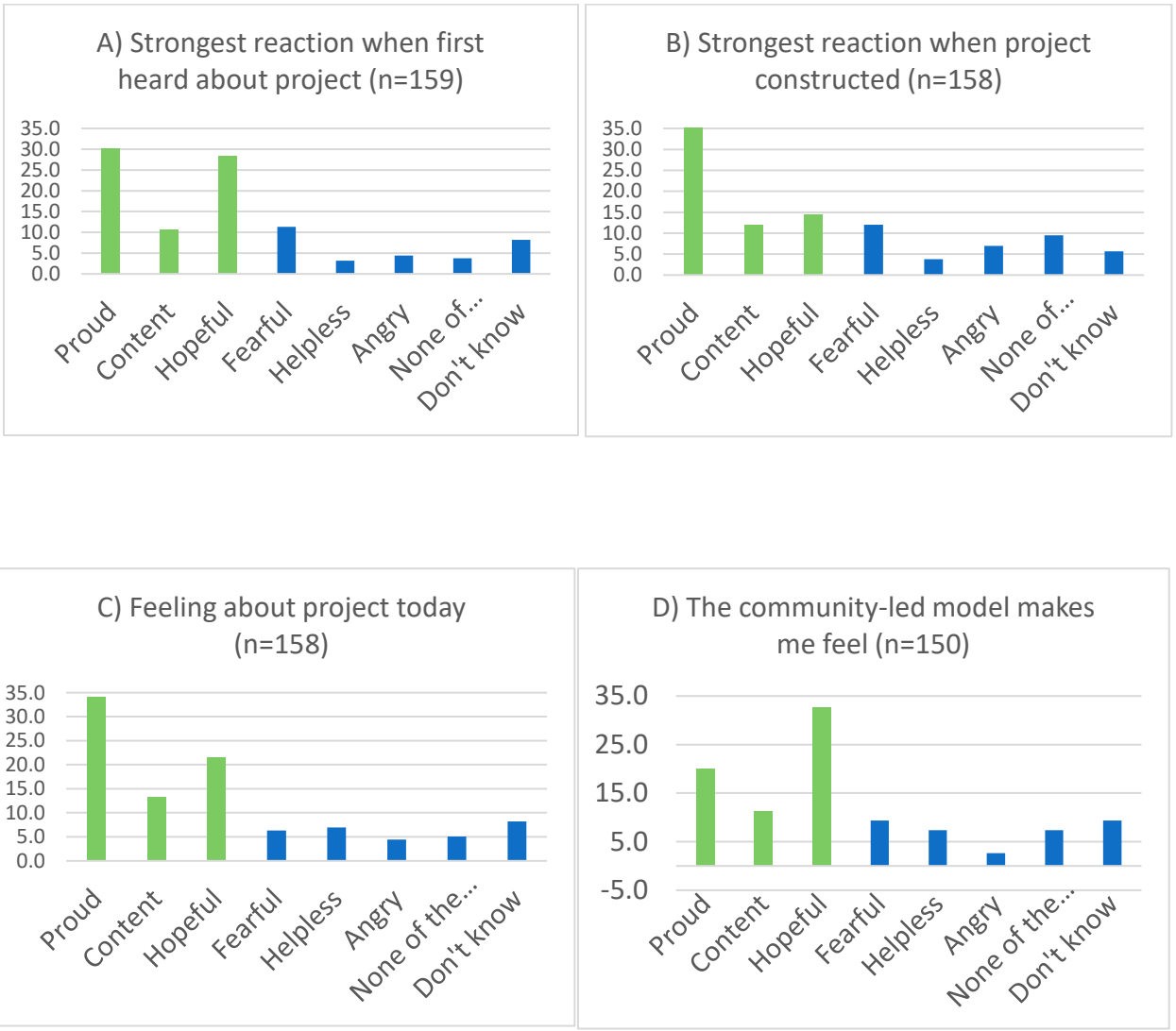


6.5.4 There is majority community pride in the project (H4)

Most respondents feel proud about their turbines, which supports the fourth hypothesis. Using a set range of words, the survey probed the strongest reaction to the project at various stages of implementation (see Figure 6-8, A to C).

From planning to current operation, and despite variations over time, pride remains the most prevalent feeling. There seems to be a strong connection between these feelings and the ownership model, based on responses to another survey question presenting two hypothetical wind project development models. In that question, members were asked to indicate their preference in a hypothetical scenario between a corporate developer-led and a community-led model of wind energy project. An overwhelming majority of respondents (74%) indicated that they would prefer the community-led model. Further, most respondents expressed that the hypothetical community-led development makes them feel proud, content, and hopeful (see Figure 6-8, D). This connects the feeling of pride prevailing among members to the ownership model. To test the correlation with the current attitude, we transformed the four variables in Figure 6-8 into binary variables coded as 1 for positive feeling (proud, content, and hopeful) and 2 for negative feeling (fearful, helpless, and angry), with “none of the above” and “don’t know” coded as missing values. The new binary variables are all significantly correlated with the current attitude towards the turbines ($p<0.01$), as shown in Table 6-2 under hypothesis H4.

Figure 6-8. Members' feelings towards the existing wind turbines and a hypothetical development model that strongly resembles the one at M'Chigeeng (% of respondents)



6.5.5 Concerns about relationships are significantly correlated to attitudes toward the wind energy project (H5)

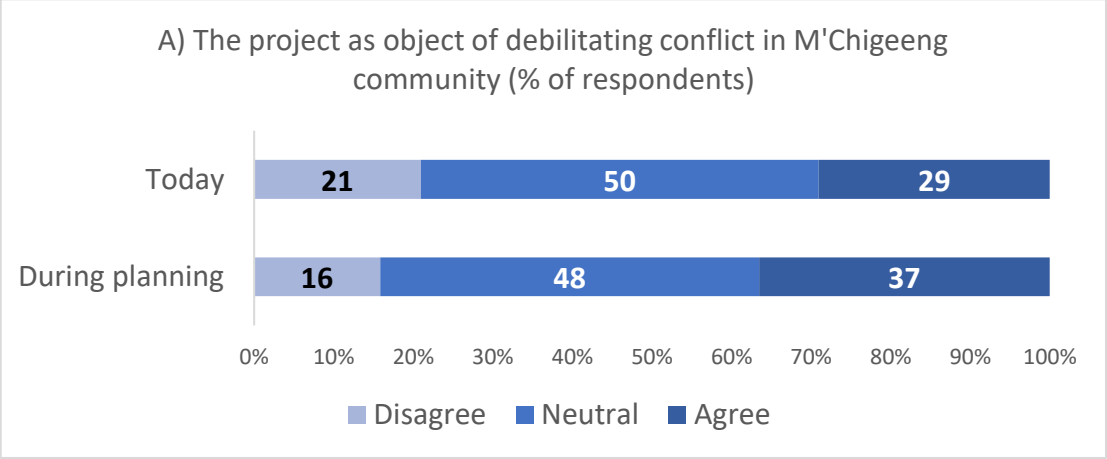
We found that all investigated facets of relationships are significantly correlated to the attitude towards the turbines – specifically, those who are not concerned about the impact on relationships are also very positive towards the local wind energy project. The survey asked about project-related tensions between M'Chigeeng members and between M'Chigeeng and neighboring

communities as well as perceptions of disruption to non-human life through the following statements applicable to the planning phase (Past) and the current operation (Present):

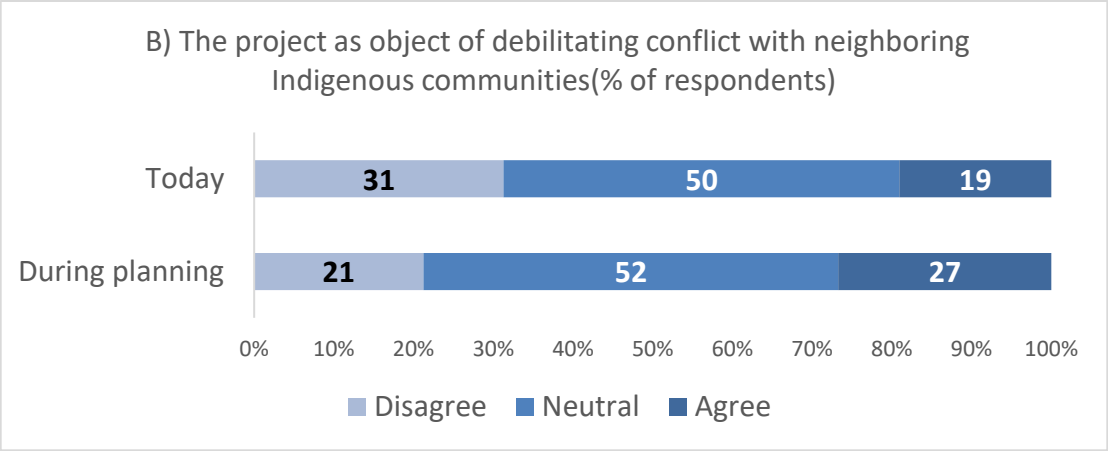
- The wind project was an object of debilitating conflict/tensions in M'Chigeeng community? (n=145)
- The wind project is an object of debilitating conflict/tensions in M'Chigeeng community? (n=148)
- The wind project was an object of debilitating conflict/tensions with neighbouring Indigenous communities? (n=146)
- The wind project is an object of debilitating conflict/tensions with neighbouring Indigenous communities? (n=147)
- The wind project did disrupt animal and plant life during construction (n=108)
- The wind project is still disrupting animal and plant life during operation (n=108)

Figure 6-9 (A to C) illustrates the responses to the above statements, merging "disagree" and "strongly disagree" as well as "agree" and "strongly agree" responses.

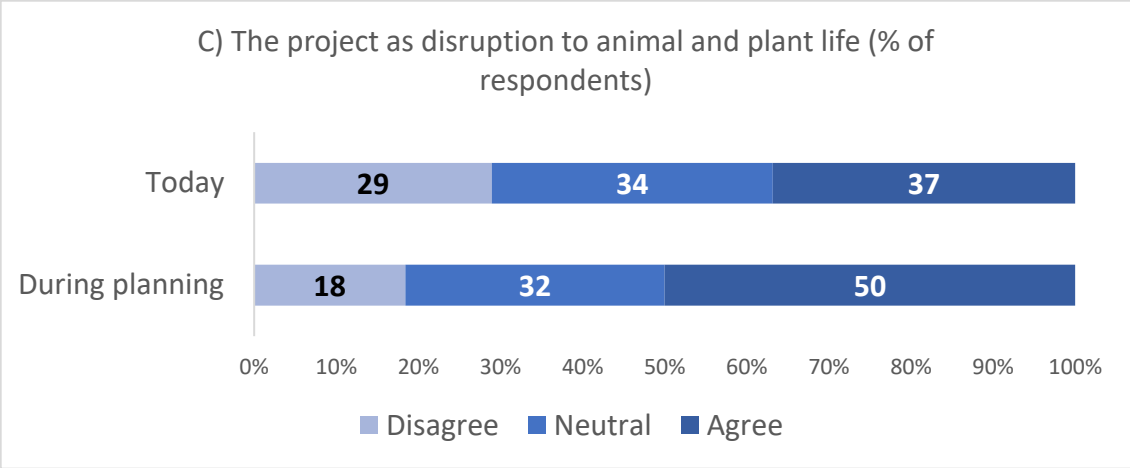
Figure 6-9. Responses about project-related conflicts and relationships



Note: Correlation with current attitude, Spearman=-0.260 (past) and -0.327 (today); p<0.01 (**) in both phases



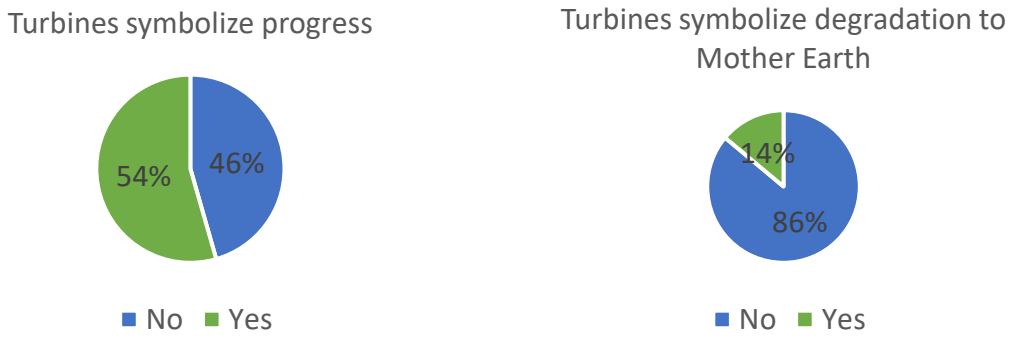
Note: Correlation with current attitude, Spearman=-.203 (past) and -.310 (today); p<0.05(**) during planning and p<0.001 (**) today



Note: Correlation with current attitude, Spearman=-.249 (past) and -.437 (today); p<0.01 (**) in both phases

Each aspect of relationships is significantly correlated to the dependent variable, current attitude towards the turbines, which supports hypothesis H5 (see Table 6-2). While there is an overall decline in concern about negative relationships from the planning stage to currently, participants felt and continue to feel the tensions caused by the wind project within the community as well as with Indigenous and non-Indigenous neighboring communities. 37% of respondents still have concerns that the turbines disrupt animal and plant life (Figure 6-9 C). However, when asked to describe the turbines (Figure 6-10), only 14% of respondents describe them as degrading Mother Earth. For 54% of respondents, they rather symbolize progress.

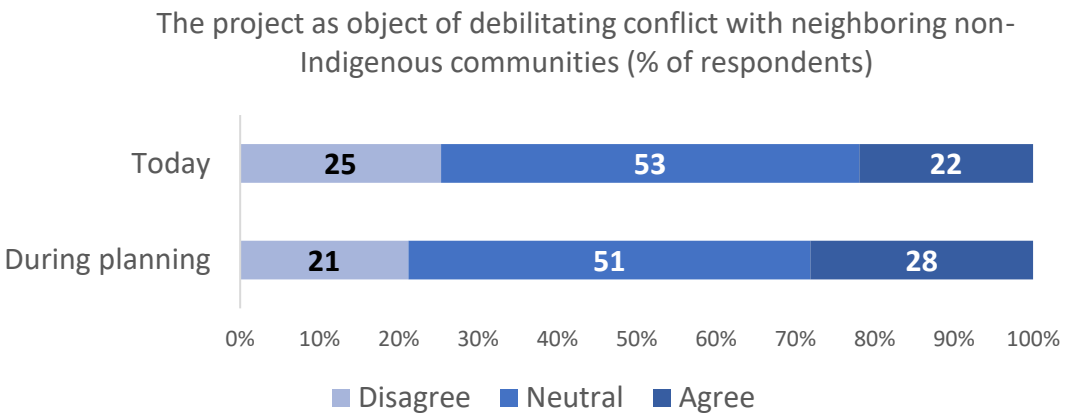
Figure 6-10. How would you describe the way the wind turbines look?



6.5.6 Reconciliation is not a significant factor in the support for the wind energy project (H6)

The findings are mixed and provide nuances to hypothesis H6 about reconciliation not being a significant factor for the support towards the MERE turbines. All the variables relevant for H6 are significantly correlated to the *attitude towards turbines*, except for the variable about *debilitating conflict with neighboring non-Indigenous communities during the planning phase* (see Table 6-2 and Figure 6-11). As illustrated by Figure 6-12, the question, "*MFN Band owns the wind turbines. Does this ownership affect the relationship with neighboring Indigenous communities*?", did elicit many neutral responses: 61% of respondents had no opinion and 30% responded with the negative. The following statement, "*The provincial policies which support the turbine income to M'Chigeeng is a step on the way to Indigenous-Settler reconciliation*" may have spoken louder to participants, as 36% of them agreed with the statement, with almost half of respondents having no opinion (see Figure 6-13). With only 16% of respondents disagreeing with the above statement, it is neither a strong support for our sixth hypothesis nor a clear enough indication of the contrary. Given that the last two variables about *relationships with non-Indigenous communities* and *Indigenous-settler reconciliation* are significantly correlated to the current attitude towards the turbines (Table 6-2), reconciliation must be considered as an important factor influencing the attitude of M'Chigeeng members towards their turbines.

Figure 6-11. Responses about project-related conflicts with neighboring non-Indigenous communities



Note: Spearman=-.058 (past) and -.261 (today); p=0.49 during planning and p<0.01 (**) today

Figure 6-12. Does ownership affect relationships with neighboring non-Indigenous communities?

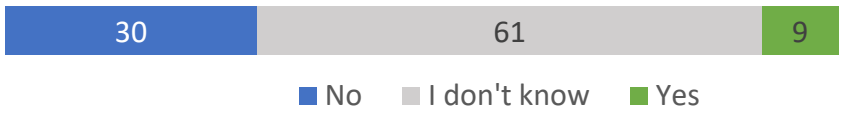


Figure 6-13. The provincial policies which support wind income to M'Chigeeng are a step toward reconciliation

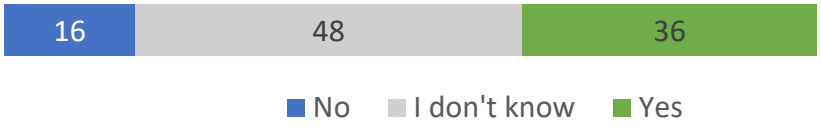


Table 6-4. Summary of findings

Hypothesis	Supported?
H1 The majority of M'Chigeeng members have a positive attitude towards their wind turbines	Yes
H2 Relative to on-reserve members, off-reserve members have a less positive attitude about the turbines	No
H3.1 Discontent comes from dissatisfaction with past planning process	Yes
H3.2 Discontent comes from dissatisfaction with current communication gaps	Yes
H3.3 Discontent comes from dissatisfaction with Information about the project benefits	Yes
H3.4 Discontent comes from dissatisfaction with distribution of project benefits	Yes
H4 There is majority community pride in the project, tied to the project ownership model	Yes
H5 The dimension of relationships is a significant factor in the community supporting the wind project	Yes
H6 The idea of reconciliation is not a significant factor in the community supporting the wind project	Mixed

6.6 Discussion

The results highlight the meanings of community-owned wind turbines in M'Chigeeng First Nation and support four of our six hypotheses (Table 6-4). In line with hypothesis H1, participants have an overall positive attitude towards their turbines (58% of respondents), which is very similar to data reported for the province, but maybe not as high as we might expect given the community's ownership and the sample's demographics that could appear skewed towards positive attitude. A similar survey on wind projects constructed in Ontario under the Feed-in-Tariff program shows a lower ratio of positive attitude with 42%, although people have a more positive attitude (56%) towards projects across the provinces of Ontario and Nova Scotia (S. M.

Wilson, 2021). Despite the general assumption that community-led projects often benefit from higher local acceptance (Baxter et al., 2020), there are few empirical studies in Canada and too few acceptance studies on Indigenous-led wind projects to make a robust comparison.

The supportive attitude is shared by on and off-reserve respondents. While this is inconsistent with our second hypothesis, it aligns with other findings highlighting that community and land attachment remains strong even among Indigenous people living away from their traditional lands. Wilson and Peters (2005) challenge interpretations of First Nations urbanization and state that when First Nations members leave spaces of assimilation (reserves) for settler spaces, they adopt various strategies to sustain their cultural identities in the new (often urban) environments. Dockery (2010) explains that Indigenous people who have been removed from their home communities or find themselves physically distant from their land often take compensatory steps to rebuild their cultural connections. There does not appear to be a "reserve factor" modifying acceptance, despite the differences in living standards off and on reserve noted in the literature (Heaman et al., 2010; Richards, 2018). This could indicate that on and off-reserve members may be sharing similar connection to their traditional backyard.

Our results support the third block of hypotheses that the members are not satisfied with the level of information shared about the project from the planning phase to the current operation stage including communication about benefits. What makes this and the findings about benefits information so interesting is that, while in most other cases distant operators, owners and the provincial government are seen to be those responsible for such communication, the responsibility in our case rests on the community itself. This should temper any enthusiasm for community-based/community-owned wind energy projects as being a panacea for community acceptance. Baxter et al. 2020 hold great hope for "localizing" process and benefits sharing, but the case of M'Chigeeng indicates community-led projects are not immune from procedural challenges due to internal divisions and poor community. Members' negative experience of planning process, that can be framed as procedural injustice, is significantly correlated to the current attitude towards the turbines. Walker and Baxter (2017b) made a similar observation in Nova Scotia, Canada where residents gave low scores to several procedural justice variables measured in their survey because they lacked the ability to affect the outcome of the process. The residents were however satisfied with the outcome of wind energy development (C. Walker & Baxter, 2017b). M'Chigeeng

members also expressed their dissatisfaction with the current information shared about the project and its benefits. This highlights that concerns for procedural justice should not end after siting and that the post-operational phase communication is important to maintain the community's support (Wolsink, 2007). While our findings relate as much to the post-operational phase, most of the acceptance literature unfortunately only links procedural aspect to the pre-construction phase.

The findings support hypothesis 4 posing such that pride is the dominant community feeling about the MERE turbine project, which we argue is a mitigating factor for contentious issues around things like community conflicts and communication deficit. M'Chigeeng members were able to forge ahead without fracturing the community despite latent internal tensions. This is very different from the pattern of opposition against wind turbines observed in Southwestern Ontario (C. Walker et al., 2018) and illustrates the importance of attending to place attachment and the ways in which place meanings are socially constructed. In that vein, a study about perception of pollution and local identity in the UK found that, "in order to strive for a positive social identity, for example, people might deny negative characteristics of their own local or national environment" (Bonaiuto et al., 1996, p. 160), denial that the authors interpret as a coping strategy to deal with a threat to place. Devine-Wright and Wiersma (2020) suggest that residents taking pride in their place may overlook certain facets of a project to maintain a positive identity. Community pride is discussed by Anderson and colleagues about the experience of the Osoyoos Indian Band in British Columbia, Canada, who see in "business development and the self-sufficiency it creates the best way to secure the right of his people to be who they are, to take pride in their heritage" (2006, p. 52). Connecting pride with the ownership model of the MERE project, we argue that pride can be seen as an outcome of the project, a non-monetary benefit that contributes to binding the community together and strengthening relationships.

The findings support the fifth hypothesis that concerns about relationships are significantly correlated to attitudes toward the wind energy project. What the wider wind energy literature discusses in fairly narrow terms as intra-community conflict (C. Walker et al., 2014) is expanded here to include neighboring communities and relationship to the land in the underlying context of colonialism. Both during the planning phase and currently, relationships are significantly correlated with the attitude towards the project, be it within M'Chigeeng First Nation or between M'Chigeeng and neighbouring communities. Relationships with non-humans, animal and plant

life, also influence the current attitude towards the turbines and are significantly associated with it. This important finding does not appear in the mainstream social acceptance literature, although we recognize that a survey designed along a Western worldview can only inform this dimension in a limited way.

Contrary to our sixth hypothesis, reconciliation is a significant factor in the community supporting the turbines, though in a nuanced way since 48% of participants have a neutral opinion about it and 16% do not connect reconciliation to the wind project and associated renewable energy policies. Having 36% of respondents seeing those policies as a step towards reconciliation is an important point that corroborates the 2019 interview findings (Mang-Benza & Baxter, 2021) and provides more local context to previous studies connecting the low-carbon transition to reconciliation in Canada (Mang-Benza et al., 2021; C. Walker et al., 2021). Mang-Benza and colleagues (2021) emphasize that discourses about energy transition and reconciliation are mainly settler-led and do not convey the same meanings as those coming from Indigenous voices, even when similar words are used. Indigenous-led projects are often about pride and self-determination, including through economic development on the land. Such aspirations are not always understood and sometimes even dismissed by settler corporations, which may lead to misguided reconciliation practices as pointed by Walker et al. (2021).

The selection of M'Chigeeng First Nation was not random, and our results are neither meant to be representative of all First Nations in Canada nor to predict acceptance of wind energy among Indigenous communities. Indeed, such a study is only beginning to be possible as community ownership of wind energy takes hold in Indigenous communities. The analysis here is based on bivariate correlations and due to low sample size, we did not run a regression model which would help sort out which variables are most important for predicting support and acceptance. The small sample size is certainly a limitation of this study. Nevertheless, this project is more about the practical inferences that come from univariate and bivariate analysis and may be considered a solid first step at conceptual relationship and hypothesis generation. Future work with larger samples can serve to check which significant relationships hold when the other variables are included as controls.

This work can valuably inform policy development and consultations with Indigenous communities where much of Canada's energy resources are found. It is fair to assume that

policymakers have vested interests in generating economic and social benefits from energy projects, while honoring their decarbonization and reconciliation commitments. Given that most of the low-hanging fruits of wind development have been reaped during the heyday of Ontario Feed-in-Tariff program, it will likely become more challenging to achieve the next level of greenhouse gas emission reductions without meaningful community engagement (Delafield et al., 2021; Hughes, 2021). The abrupt step back on wind energy development in Ontario attests to the importance of understanding the drivers of acceptance of renewable energy technologies and the risks of failing to do so. Yet, this is only part of the story.

By highlighting the importance of Indigenous understandings of relationships, our findings add nuance to community acceptance of renewable energy and call for attention to colonial histories and the legacy thereof. Settler policymakers should not misconstrue the deep aspirations behind Indigenous-led renewable energy projects. Because energy systems are shaped by material conditions, institutional traditions, and discursive practices (Hoicka & MacArthur, 2018), failure to decolonize those traditions and discourses will inevitably result in inappropriate policy design.

6.7 Conclusions and policy implications

This study has important implications for both M'Chigeeng First Nation and Canada's energy systems. The findings show that the social capital behind the MERE energy project, i.e., the community support for the turbines, is tied to the ownership model and the pride thereof binding members together. While we argue that pride can be considered a project outcome, it has limits. The clear concerns about post-operations communication underscore the importance for the Band leadership to open conversations about the MERE project. Indigenous communities and settler municipalities alike should beware of simply localizing the usual angst and frustration with participation if facility siting, communication and benefits sharing are not properly managed and discussed. Pride of ownership may wear out if members do not understand how revenues generated by the turbines are reinvested in the community. Conversely, if community members can contribute to investment decisions and see improvements in their well-being, the social capital behind the turbines is likely to grow even more.

This study evokes new lines of thinking about the energy transition in a country seeking to mend its colonial wounds. Designing energy systems for the next seven generations, as suggested by

Indigenous leaders at the Grand Economic Circle (Narine, 2021), would be a revolutionary idea both in Canada and in global energy debates, yet should be explored given the unimpressive track record of traditional Eurocentric energy planning. Energy justice is the red thread that connects the 4-MW MERE project with the current energy transition in Canada and worldwide. There is still a long way for Canada to reconcile its neoliberal development pathway and energy policies with the seven-generation sustainability benchmark proposed by some Indigenous leaders at the 2021 Grand Economic Circle (Narine, 2021). However, we contend that the lessons learned from Indigenous-led development initiatives can and should be an integral part of the solutions to grand sustainability challenges, including the path to net zero.

Chapter 7

7 Discussion and conclusion

7.1 Introduction

This dissertation connects the experience of an Indigenous community owning and living with wind turbines to the national context of energy transition and reconciliation in Canada. It used a combination of methods, namely discourse and content analysis, interviews, and a survey, to address the following questions inductively and deductively:

1. In which ways do public narratives on the energy transition intersect with those about reconciliation between Indigenous and non-Indigenous peoples in Canada?
2. What are the perceptions of, and attitudes towards, the wind energy project in M'Chigeeng First Nation?
3. To which extent does M'Chigeeng's engagement in renewable energy portend a redefinition of relationships and power in the settler Canadian society?

Answering these questions called for a critical engagement with three literature strands, namely community wind energy, energy transition, and Indigenous political ecology. This final chapter synthesizes the main findings around the research questions, then summarizes the academic contributions and practical implications of this work. The chapter ends with suggestions for future research.

7.2 Summary of findings

7.2.1 Public narratives energy transition and reconciliation in Canada

Chapter 4 describes how Indigenous and non-Indigenous public sources communicate about the energy transition and reconciliation, focusing on the 2007-2018 period. The chapter makes it clear that, while Indigenous and non-Indigenous public voices may be using similar terms, they don't always mean the same thing. This dissonance speaks to deep-seated differences in Indigenous and Western imaginaries about development and well-being, too often overlooked by a settler majority

eager to consolidate a unified and pluralist Canadian society (Davine et al., 2017) and clear the collective conscience from embarrassing and painful birthmarks. As bluntly put by Regan (2010, p. 11), “Canadians are still on a misguided, obsessive, and mythical quest to assuage colonizer guilt by solving the Indian problem. In this way, we avoid looking too closely at ourselves and the collective responsibility we bear for the colonial status quo. The significant challenge that lies before us is to turn the mirror back upon ourselves and to answer the provocative question posed by historian Roger Epp regarding reconciliation in Canada: How do we solve the settler problem?” Meanwhile, communities like M’Chigeeng continue to look for community development projects to further solidify their economic independence and self-determination.

Chapter 4 also explores the evolution of public narratives during the 2007-2018 period, period that includes the 2009 Green Energy and Green Economy Act in Ontario, the 2015 Report of the Truth and Reconciliation Commission of Canada, and the global landmark Agreement on Climate Change adopted in Paris in 2015. The analysis shows, after 2015, a notable increase of conversations from Indigenous and non-Indigenous sources that bridge the reconciliation and decarbonization imperatives. The chapter concludes that there is no evidence that the current energy transition will improve the relationship between Indigenous and non- Indigenous people. It is however possible that the energy transition and reconciliation journeys converge further, as social (settler allyships and public awareness), ecological (international agreements and concerns for climate risks), and political (UNDRIP, Wet’suwet’en Nation’s protest, and Indian Residential School graves) circumstances coalesce to shake and challenge, if not shatter, colonial structures.

7.2.2 Perceptions of, and attitudes towards, the wind energy project in M’Chigeeng First Nation

> *If someone makes a comment about it if I’m wearing a wind turbine shirt, I’ll just say well I prefer wind to nuclear. Only takes one of those nuclear plants to destroy our lakes I tell. They usually just shut up. (Interview respondent)*

In response to the question about the perceptions of the wind turbines, the main finding is that the majority of M’Chigeeng respondents, both on and off-reserve, have a positive attitude that can be nuanced along the continuum of acceptance to support (Upham et al., 2015). However, at least half of the participants are active supporters of the turbines, i.e., 16 of the 32 interview respondents explicitly stated their support and 58% of survey participants expressed a “positive”

and “very positive” attitude towards the turbines. Members who have a negative attitude towards the turbines may do so because of the noise, the land disruption and degradation resulting from construction and operation, or inadequate communication about various aspects of the project, including revenues generated, community benefits, and ownership of the turbines site. The communication deficit came out strongly in survey, with only 24% of respondents agreeing with statement “I currently have access to adequate information about the wind project”. The survey confirmed what the interviews had highlighted:

> *They should have an open book policy, or, like, a transparent book… keeping documenting all the wattages and equivalent to money going out and coming in, and what it’s bringing in, you know? So that people can track it coming in here into the Band office.*

Members clearly expressed their dissatisfaction with the project-related communication even from planning and construction phase, although several members admitted that information was flowing more readily before and during construction. The discontent is tied to the content and format of communication. As seen in Chapter 6, respondents are not satisfied with the current information on the project, including about benefits. Speaking to the format, interview participants stated their preference for culturally appropriate information, involving visuals, and culturally sensitive communication, accounting for the levels of formal (Western) education in the community. Probing the apparent contradiction between dissatisfaction and positive attitude, the interviews and survey reveal the mediating role of community ownership.

After almost ten years of owning and operating the two turbines (from construction in 2012 to interviews in 2019 and survey in 2021), the MERE ownership model is still cause for pride in the community, a vivid feeling at every stage of the project development, from project announcement and construction to current operation. Ownership seems to afford members with the satisfaction of control and achievement. The satisfaction and pride of ownership do not necessarily mean that members understand the intricacies of the business model. To the contrary, some members voiced that the model was shrouded in *legalese* and mentioned grumblings in the community as to who really owned the turbines site. Nevertheless, as observed by an interview participant, “*Natives were primary owners of the land, so the notion of ownership is important to them for economic reasons*”. Another participant mentioned the intergenerational benefit of ownership, allowing the current generation to leave something tangible for the next. The findings about ownership unearthed underlying ramifications captured under the heading of relationships.

The interviews and survey probed the four-tier dimension of relationships, i.e., social relationships between members of M'Chigeeng First Nation, secondly members' relationships to the land, then relationships between M'Chigeeng members and other Indigenous communities on Manitoulin Island, and fourthly relationships between M'Chigeeng and neighboring non-Indigenous communities. The MERE project undoubtedly caused some tensions among M'Chigeeng members, most notably during the planning phase when conversations took a political turn, being superimposed with the then-Chief's electoral campaign. Participants generally agree that the tensions have subsided over time. This is consistent with prior research reporting a U-shape pattern of acceptance, with higher approval before the siting process and after the construction of wind turbines – with construction phase positivity towards the project lowest (Devine-Wright, 2005; Krohn & Damborg, 1999; Wolsink, 2007).

The aspect of members' relationships to the land is unique to Indigenous communities. For Anishinaabek people, land is life and the relationship to it determines social and spiritual well-being (Schaefer et al., 2021; Tobias & Richmond, 2014; K. Wilson & Peters, 2005). In M'Chigeeng First Nation, the wind energy project does not exist in a cultural vacuum. If the project groundbreaking ceremony made the local news due to the presence of environmentalist David Suzuki, the traditional opening of the event and prayers by a community Elder remains a highlight of the day for several M'Chigeeng members. However, the ceremony did not alleviate all concerns about past (during construction) and ongoing disruption of animal and plant life. Fourteen percent of survey participants think that the turbines symbolize degradation to Mother Earth and 37% view the project as currently disrupting animal and plant life. These numbers are counterbalanced by the remainder (86%) of respondents not considering turbines as degrading Mother Earth.

There is little to say about the third tier of the analysis of relationships between M'Chigeeng and other Indigenous communities on Manitoulin Island. Some interview participants recalled that tensions arose with Indigenous communities on the island during the construction phase but were easily and quickly resolved.

7.2.3 M'Chigeeng's engagement in renewable energy and redefinition of relationships and power in the settler Canadian society

Completing the four-tier analysis is the aspect of relationships between M'Chigeeng and neighboring non-Indigenous communities, which also presents the opportunity to connect the local context of the MERE project to the broad settler society in Canada. The survey included two closed questions about relationships with non-Indigenous communities. To the question, "Does ownership affect relationships with neighboring non-Indigenous communities?", only 9% of respondents said yes while a large majority (61%) did not know, which could be interpreted either as not having any opinion or not being sure about the connection between ownership and relationships. More respondents (36%) however agreed with the statement that "the provincial policies which support wind income to M'Chigeeng are a step toward reconciliation", even though again here, 48% did not know. This finding gives a local perspective to the high-level analysis of discourses about energy transition and reconciliation presented in Chapter 4. The analysis shows that these discourses mainly originate from non-Indigenous circles. The data from M'Chigeeng shows some traction of these discourses in the community.

As generally the case in qualitative analysis, the interviews provided a richer description of the connections that members make between M'Chigeeng's engagement in renewable energy and the redefinition of relationships and power in the settler society. Chapter 5 shows how conversations about the turbines moved to the terrain of colonial legacies as some participants expressed that the wind project was an opportunity to build economic prosperity, sever dependence from the government, and heal from colonial stealth. The chapter closes with the account of a conversation between a Band member and a settler woman that beautifully illustrates the need for, and the emergence of, new forms of relationships between Indigenous and non-Indigenous people in Canada: Indigenous Canadians cannot be reduced to powwow dancers while their aspirations for self-determination and restoration are dismissed (Mang-Benza & Baxter, 2021). M'Chigeeng's example speaks loudly to the aspiration of restoration and autonomy shared by many Indigenous communities in the country. These aspirations surface in public narratives about energy transition and reconciliation, as summarized in the next section.

7.3 Research contributions

7.3.1 Academic contribution

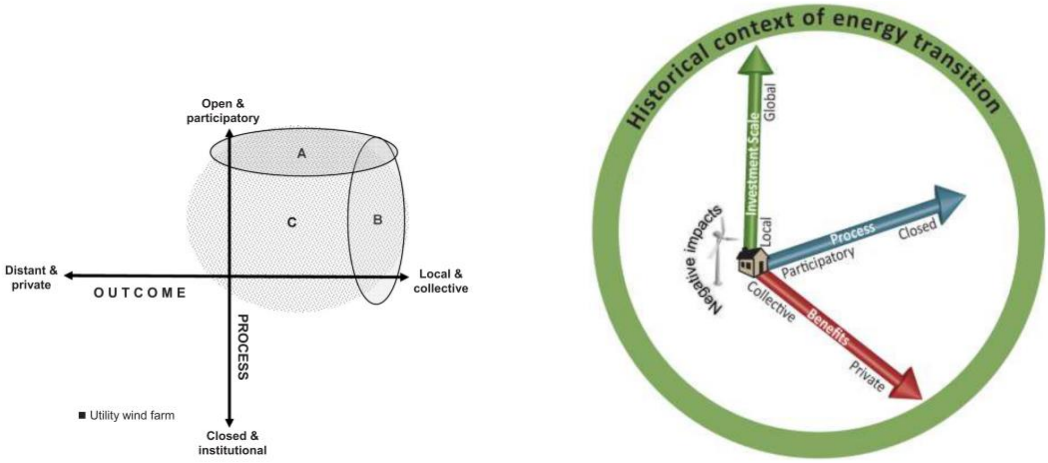
7.3.1.1 Empirical level

The introductory chapter noted the paucity of academic work on community wind energy in Canada, compared to Europe, combined with a lack of attention in the social science of wind energy literature to Indigenous communities engaged in renewable energy. This dissertation contributes to filling a gap in empirical knowledge by bringing to the fore, through qualitative and quantitative data, the lived experiences of Indigenous community members in response to renewable energy schemes on their traditional lands. The community partnership afforded rich learning about ways to navigate the space between Western research paradigms and Indigenous knowledge systems, establishing collaboration with short-staffed Indigenous bands, maintaining a participatory approach at a distance, and conducting staged fieldwork. Of course, the Covid-19 pandemic further compounded the existing research constraints, forcing us at some point to rely on online modes of communication and abandon all visits. Thankfully, the interview phase was completed in October 2019, before the pandemic hit.

7.3.1.2 Theoretical level

There is also a theoretical contribution to this research, building on earlier conceptualizations about community energy developed from non-Indigenous case studies. As introduced in Chapter 2, wind energy scholars have commonly used the process-outcome framework (G. Walker & Devine-Wright, 2008), further elaborated by Baxter and colleagues (Baxter et al., 2020). Both frameworks are presented in Figure 7-1. According to Walker and Devine-Wright, ideal community projects (model A, B, or C in the top-right quadrant) are implemented by the local community and for local people. Baxter and colleagues made an important contribution to the scholarship by bringing attention to the broad energy transition context, which in their view encompasses historical legacies and post-colonial processes. I argue, however, that the Fourth World that Indigenous communities have been made to form is too much of a unique context to be blended in generic analyses (Stea & Wisner, 1984). It rather warrants a finer-grained conceptualization.

Figure 7-1. Community energy conceptualizations



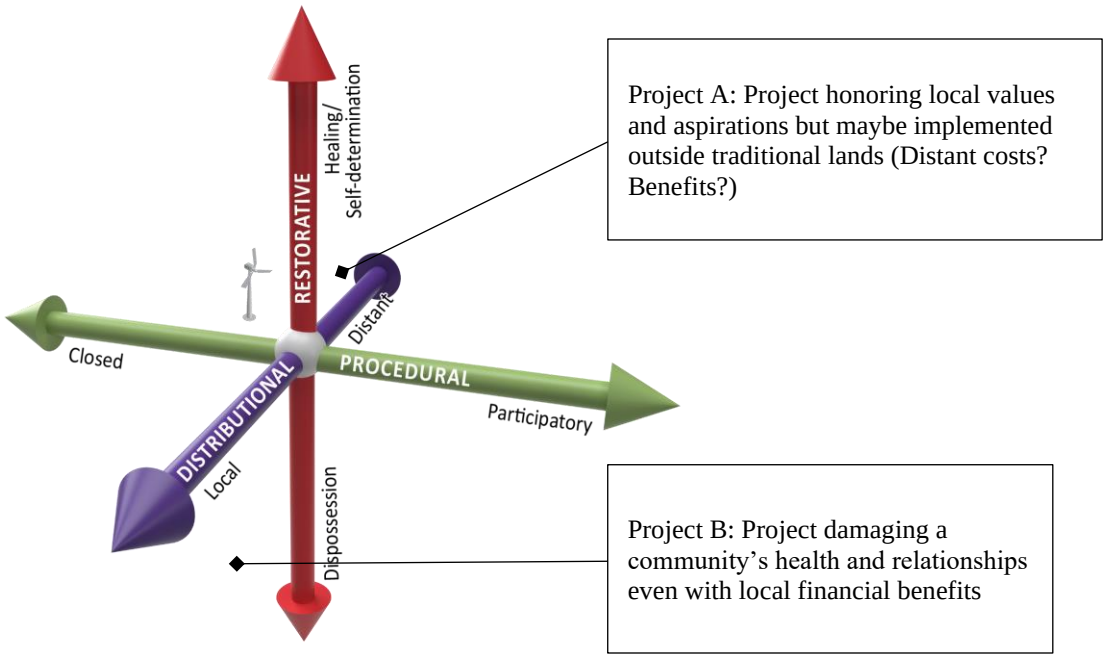
Left: Two-dimensional framework (G. Walker & Devine-Wright, 2008, p. 498)

Right: Three-dimensional framework (Baxter et al., 2020, p. 9)

In Figure 7-2, I propose a framework that builds on the conceptualizations offered by Walker and Devine-Wright (2008) and Baxter et al. (2020). It nods to the energy justice triumvirate language (Mccauley et al., 2013) to outline three dimensions of justice, the novelty being the dimension of restorative justice that, I contend, is unique and more applicable to Indigenous contexts. The framework contains three axes, as described below.

- Procedural justice (x) axis, from "closed" to "participatory": the term closed refers to non-existing or limited participation of the host community in project development while participatory processes allow for meaningful involvement of those affected by the project
- Distributional justice (y) axis, from "distant" to "local": distant refers to projects with costs and benefits allocated away from the project site away while the term local characterizes projects that produce positive (and negative) impacts for people in the project vicinity (in their backyard)
- Restorative justice (z) axis, from "conducive to dispossession" to "conducive to self-determination/healing": dispossession involves direct and indirect processes damaging life and health while the other end of the axis relates to projects promoting self-determination, healing, and well-being.

Figure 7-2. An Indigenous community energy justice framework



Source: Author's construct (Produced by Karen Van Kerkoerle, Cartographic Section, Geography and Environment, Western University, 2022

Being tri-dimensional, the framework has eight quadrants representing different combinations of justice qualities, which adds complexity. However, departing from the 2D framework of "procedure" and "outcome" (G. Walker & Devine-Wright, 2008) or the unidirectional framework expanding from a point of origin (Baxter et al., 2020) is justified. It is not a mere academic exercise, rather an attempt to illustrate concerns that are important for Indigenous communities participating in the energy transition. Plus, this is not the first of such attempts. Reflecting on the absence of a time element in the process-outcome framework, Creamer and colleagues (2019, p. 3) note that the simplification of a 2D-representation "erases the "evolving and fluid" nature of CRE projects, and how they are perceived".

Given the challenges of decolonization and energy transitions in settler countries, the added complexity of eight quadrants is thus justified and warranted. Users may position in the framework energy projects that Indigenous communities participate in, on their own or with

others, on their traditional land or away from it, and attribute justice qualities to such energy projects. For example, on Figure 7-2, Project A may be implemented away from the reserve traditional lands yet in accordance with communities' aspirations, which contributes to restoration. In contrast, Project B would damage community's health and relationships between members and on the land, even if it generates financial revenues. In this framework, one could imagine a golden quadrant of projects defined and developed through open and participatory processes, bringing meaningful social, cultural, economic benefits, and contributing to the community's self-determination and restoration. It is important to eschew essentialist perspectives here. Projects should be plotted with the understanding that communities are not monolithic; hence, different people in the same community may perceive the project differently and give it different characteristics.

Though designed with wind energy in mind, the framework can serve as a tool both to develop community energy projects and to help understand responses to renewable energy projects in Indigenous communities. With the sole case study of M'Chigeeng First Nation, it would be presumptuous to pretend developing a list of indicators and criteria to define projects using this framework. However, it is a first theoretical step that illustrates the importance of the three tenets of justice: when one is missing, balance is disrupted, and communities (and projects) may be threatened.

Once expanded and tested, this framework could be a useful tool to situate Indigenous community energy projects in the context of the ongoing energy transition and reconciliation in Canada and anchoring them in movements for self-determination and resurgence. For example, one could conceptually combine the above framework with a macro model like the Multi Level Perspective (shown in Figure 2-6) so that Indigenous community energy projects are represented at the niche level. In this revised macro model, Indigenous community energy projects would act as niches, i.e., as sites of socio-political transformation where self-determination is achieved on community's terms. The appeal of this macro model is that it is compatible with the Indigenous resurgence movement: whilst niche protection measures may be initiated by the settler state via for example preferential policies or feed-in-tariffs, the niche grows from endogenous factors such as autonomy, pride, etc. Again, this is a preliminary theorization that requires further assessment and case studies.

7.3.2 Non-Academic contributions

7.3.2.1 In M'Chigeeng First Nation

Self-determination, healing, and restoration are key concerns for Indigenous people affected by intergenerational trauma, manufactured deprivation, marginalization, and oppression. M'Chigeeng First Nation invested in the MERE wind project to sever their dependency from the federal government and secure additional revenue streams for the Band coffers. Coinciding with the 10th anniversary of the turbines' construction, the end of our research partnership can be a fitting opportunity for a community-level stocktaking exercise allowing M'Chigeeng members to examine the research findings and possibly regroup around the vision that originally undergirded the MERE project. Our knowledge mobilization outputs, including the formal project report to Chief and Council and animated video (still in production at the time of drafting) describes the positive attitude towards the turbines and overall pride as well as some areas of concern, including the deficit of communication about benefits. Though the way forward is left to the discretion of Chief and Council, the momentum generated on and off-reserve by this research partnership and data collection can hopefully be mobilized in a positive and constructive way.

7.3.2.2 In the Canadian polity

Another practical contribution of this work is that it helps understand broader political conversations about energy transition and reconciliation. Ontario's 2009 Feed-in-Tariff program is a sterling example of well-intentioned energy policy catering to the unique circumstances of Indigenous communities, yet rolled out in a counterproductive and divisive way for many other communities in the province (C. Walker & Baxter, 2017a, 2017b). The program was meant to propel the province as a leader in renewable energy, yet its community-blindness, mainly regarding settler communities, caused its premature demise. Given the spreading national conversations about reconciliation on the one hand, and the country's ambition to reach net zero in 2050 and rising energy costs on the other hand, it makes sense to expect major policy decisions around renewable energy deployment in the near future. These will inevitably impact Indigenous lands that abound in energy resources, which has the potential to pit Indigenous communities against the settler state over the terms of resource development. The findings from this research

find their application in such cases, confirming that procedural and distributive justice are context-specific and emphasizing Indigenous aspirations for restoration and self-determination.

While self-determination is a central element in understanding Indigenous-led resource development projects, it may look different from one community to another. As the wind blows on the MERE turbines, five Anishinabek First Nations within a 370-km radius from M'Chigeeng are taking a step away from the Indian Act and closer to their vision of self-determination. In April 2022, Moose Deer Point, Wahnapitae, Nipissing, Magnetawan and Zhiibaahaasing First Nations, represented by the Union of Ontario Indians, signed with the federal government the Anishinabek Nation Governance Agreement which, if passed by the federal legislation, will become the first self-government agreement of its kind in Ontario. Any First Nation that ratifies the Agreement will hold the power to enact their own laws in certain areas including leadership selection, citizenship, and culture (Anishinabek Nation, 2020; CBC News, 2022b). Glen Hare, former Grand Council Chief of the Anishinabek Nation, had this to say about the Agreement that has been negotiated over two decades (Anishinabek Nation, 2022):

> *"We need to restore our governance systems to what they were meant to be. Our systems and processes drew their strength and unity from the people in an organized way. We can do this again, restoring elements that were once the foundation of vibrant and effective decision-making protocols."*

On the journey to reconciliation, there will most likely be more ways that Indigenous nations choose to approach self-determination. There will also be more cases of settler projects of capital accumulation hindering Indigenous self-determination (Cornell, 2006; Davine et al., 2017). As a matter of fact, in the span of four weeks in 2022, Newfoundland and Labrador became a microcosm of a country negotiating these tensions, with their provincial government forging ahead with an aggressive oil and gas agenda despite Indigenous concerns and stated climate change goals (a whole too familiar story in Canada):

- On April 6th, 2022, the Federal Environment Minister approved the Bay du Nord megaproject to pump about 300 million barrels of oil from the sea floor with the promise to boost the Newfoundland and Labrador economy (and help reduce federal fiscal deficit) and the condition to achieve net zero emissions by 2050 (Roberts, 2022).

- The day before, the Liberal government of Newfoundland and Labrador had announced the lifting of a moratorium that since 2007 had prevented companies to generate and export onshore wind energy (CBC News, 2022a).
- Just a month earlier, the Chief of an Innu community in the province had expressed concerns about oil and gas exploration conducted without consulting affected Indigenous people, stating that "their relationship with Uinipek (the sea), the source of life, is fundamental for their maritime people who continue to exercise their ancestral rights, notably the gathering of marine resources for social, ceremonial purposes and for sustenance" (Anselmi, 2022).

Multiple other examples across the country illustrate the tensions and contradictions existing on the conjoined journeys of energy transition and reconciliation. On the dynamic backdrop of the TRC Calls to Action, the federal Cabinet's mandate to implement the United Nations Declaration on the Rights of Indigenous Peoples (Government of Canada, 2021b), the appeal of an oil and gas boom in a 2022 world gripped with rising energy costs, Canada is stepping into a chairing role in the Sustainable Development Goals Advocates group (Government of Canada, 2022b), alongside Barbados, a small island state threatened by rising sea level who dared to cut its colonial ties with Britain (Faulconbridge, 2021). As Canada navigates this dual journey of energy transition and reconciliation, the path forward will undoubtedly continue to be fraught with tensions, contradictions, and political incoherence. The findings from this research partnership with M'Chigeeng First Nation modestly contribute to understand those tensions.

7.4 Study limitations

There is no perfection in research, as explained below for each scale of analysis: community and national levels.

7.4.1 Community level

The first limitation is that no Indigenous methodology was used to collect or analyze the data, though we worked closely and for an extended period with some key individuals in the community. Western research traditions have been active companions of colonial projects and colonial practices die hard, even with good intentions. A closer engagement with Indigenous

epistemologies would have likely shed a different light on M'Chigeeng's engagement in wind energy. Further, as pointed in Chapter 3, our version of community-based research, conducted by outsiders connecting from a distance – albeit on a fairly regular basis, did not allow to fully fathom the intricate local dynamics, be it at the Band Office or between community members. In the interactions with the Band Office, it was often challenging to negotiate the imbalance of power and capacities (human and financial resources) as well as the constraints of time (PhD program) and tensions between intent and reality (for example, the main community interlocutor was hesitant in being a paper co-author). However, as described in Chapter 3, I strove to uphold ethical principles, maintain a respectful attitude in all my interactions, and keep attentive eyes and ears to cultural codes. I was very aware that to just "add Indigenous and stir" (Kovach, 2009, p. 156) was no acceptable approach. As the research partnership comes to an end, we are working with the Band Office to ensure that the terms of data ownership are clear, acceptable to all parties, and mutually beneficial.

It is also important to discuss here the sample size and risk of selection bias. Given that M'Chigeeng is a small community of 2,500 members and the response rate was 11.6%, attempting to generalize the findings would be questionable. However, the depth of knowledge gained in single case studies has to be weighed against the breadth of data provided by generalization, recognizing that single cases allow identifying black swans (unique dimensions) in research (Flyvbjerg, 2006).

The risk of selection bias is inherent to social research because understanding social behavior requires studying a sample of people involved in such behaviors (Winship & Mare, 1992). In social surveys, there is the additional risk of self-selection bias, whereby a group of people sharing a particular behavior or interest may be over-represented in the sample, which leads to skewed or unreliable findings (Bethlehem, 2010; Whitehead, 1991). Speaking to the participation of members of environmental interest groups, Whitehead (1991, p. 17) states that they "are expected to value environmental goods more highly than the general population and respond with higher frequency to mail surveys". Practically speaking, this could mean that turbines supporters in M'Chigeeng would be the ones most likely to fill out the surveys and by extension, also participate in interviews. While this possibility exists, there is reassurance in the findings given

the convergence of interview and survey results, including regarding the apparent contradiction between the communication-related dissatisfaction and the pride-induced acceptance.

7.4.2 National level

More than it presents a limitation, this section highlights the inevitable omission of important events from the analysis of public narratives on energy transition and reconciliation. The manuscript presented as Chapter 4 covers the period 2007-2018 and does not reflect the important events related to climate change and reconciliation that later affected national conversations. The recent years have been rich in such events, including the report of the National Inquiry into Murdered and Missing Indigenous Women and Girls (2019b), the 2019 climate strikes, the first discovery of unmarked graves at the former Kamloops Indian Residential School (Dickson & Watson, 2021), the adoption of the Canadian Net-Zero Emissions Accountability Act (Government of Canada, 2022a), the first National Day for Truth and Reconciliation (Government of Canada, 2021a), and the appointment of the first-ever Indigenous Governor General (2021), to name just a few. Discourses and narratives are rarely static, and events like the cascade of macabre discoveries in former Indian Residential Schools might modify the tone and content of settlers' conversations or unsettle a larger number of Indigenous people. The discourse analysis in Chapter 4 thus needs to be read in its chronological context, considering the political landscape of the study period.

7.5 Future work

7.5.1 About community wind energy

There is ground to further explore the applicability of the framework proposed in Figure 7-2 in multiple case studies as motivations for developing renewable energy projects will differ between Indigenous communities. Future work could expand the understanding of Indigenous-owned renewable energy, possibly by including more cases and examining various scales of energy infrastructure and different benefit distribution models. There are other wind farms in Ontario with Indigenous participation, including the 300 MW Henvey Inlet project (Henvey Inlet First Nation, 2018) and the 58 MW Bow Lake Wind Farm (A. A. Smith & Scott, 2021). Investigating projects of such scale will likely bring rich insights.

7.5.2 About energy transition, energy justice, and reconciliation

There is a lot more to understand about energy justice, as it pertains to Indigenous peoples and their identities in settler societies. This requires a multidisciplinary approach drawing from such perspectives as geography, Indigenous political ecology, law, and others to examine power imbalances and ongoing assaults on Indigenous lands and lives (Gombay & Palomino-Schalscha, 2018). Future research could focus on the intersections between low-carbon technologies and socio-political facets of the current energy transition. As stated by Winner (1980, p. 128), "the issues that divide or unite people in society are settled not only in institutions and practices of politics proper, but also, and less obviously, in tangible arrangements of steel and concrete, wires and transistors, nuts and bolts". In other words, the infrastructures birthed by the energy transition will inevitably reflect the minds that designed them. Focusing on social, technical, and political intersections would highlight the opportunities to design just energy futures. It should also identify the risks of reproducing inequalities when maintaining a colonial logic of asset-based capitalism that discards Indigenous worldviews as development models.

7.6 Conclusion

There are and will be obstacles on the journey to redefining relationships between Indigenous and non-Indigenous people in Canada, despite some convergence of interests, including in just transition and low-carbon development. As observed by Davis (2010, p. 336), "when Indigenous and non-Indigenous people come together in alliances and coalitions, paternalism may be mobilized, subtly or overtly. There are often breeches of Indigenous social codes of which many non- Indigenous people are simply not aware. As a result, the relationship can be marked by the same disregard of Indigenous values and traditions that characterize Indigenous/non-Indigenous relationships in the broader society. Despite the good intentions of the allies, colonial relationships can be reproduced." Preventing the perpetuation of colonial relationships requires settlers to confront colonial cognitive frameworks and negotiate new spaces of power.

The research presented in this dissertation rests on the notion that, in the diverse 150-year-old Canada, reconciliation transcends any economic sector and must be embedded within all sectors to be truly functional, including the energy sector. Beyond the scholarly insights gained from M'Chigeeng example, this work holds practical significance: in breadth, as energy systems impact

all economic sectors; in depth, as it reveals stories about the best and the worst in the fabric of Canadian society; in time span, because it connects the 1876 Indian Act to the 2015 Truth and Reconciliation Commission, and to the next seven generations; finally, in scale, as it links a local community experience to provincial and national governance and to global commitments to decarbonization.

Rather than an ensemble of measures taken by one group to help the other, true reconciliation should be the opportunity to envision and open new decolonized spaces where Western values and Indigenous ways of knowing can coexist to design a common societal project. The stakes are high in a country that built its socio-economic fabric on the erasure of Indigenous communities and stealth of the resources they were willing to share as long as rivers flow. I understand that this was the essence of the Two Row Wampum Belt agreement between the Haudenosaunee Nation and the Dutch explorers. As I write these final words, I pray that my and future generations of settlers find within us the courage to honor the vision of the Wampum Belt.

References

Adelson, N. (2005). The Embodiment of Inequity Health Disparities in Aboriginal Canada. *Canadian Journal of Public Health CBCA Complete Pg*, *March-April*, 545–561. http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.544.2596&rep=rep1&type=pdf

Adjei, S. B. (2013). Discourse Analysis: Examining Language Use in Context. *The Qualitative Report*, *18*(25), 1–10. https://search.proquest.com/docview/1505321070?pq-origsite=summon&accountid=15115

Alfred, T. (1999). *Peace, Power, Righteousness: An Indigenous Manifesto*.

Alfred, T. (2011). Restitution is the real pathway for justice of Indigenous peoples. In G. Younging, J. Dewar, & M. DeGagné (Eds.), *Response, Responsibility, and Renewal: Canada's Truth and Reconciliation Journey* (pp. 163–170).

Alfred, T. (2015). Cultural strength: restoring the place of indigenous knowledge in practice and policy. *Australian Aboriginal Studies*, *Vol. 1*.

Allaire, B. (2019). Jacques Cartier. In *The Canadian Encyclopedia*. https://www.thecanadianencyclopedia.ca/en/article/jacques-cartier

Anderson, R. B., Dana, L. P., & Dana, T. E. (2006). Indigenous land rights, entrepreneurship, and economic development in Canada: "Opting-in" to the global economy. *Journal of World Business*, *41*(1), 45–55. https://doi.org/10.1016/J.JWB.2005.10.005

Andrews-Speed, P. (2016). Applying institutional theory to the low-carbon energy transition. *Energy Research & Social Science*, *13*, 216–225. https://doi.org/10.1016/j.erss.2015.12.011

Anishinabek Nation. (2020). *Restoration of jursidiction*. https://www.anishinabek.ca/governance/governanceactivities/overview/

Anishinabek Nation. (2022). *The Anishinabek Nation Governance Agreement* . https://www.governancevote.ca/

Anselmi, E. (2022, March 10). *How Canada made exploring for Newfoundland oil and gas easier | The Narwhal*. The Narwhal. https://thenarwhal.ca/newfoundland-oil-gas-federal-oversight/

Arnstein, S. R. (1969). A Ladder of Citizen Participation. *Journal of the American Planning Association*, *35*(4), 216–224. https://doi.org/10.1080/01944363.2018.1559388

Asch, M., Borrows, J., & Tully, J. (2018). *Resurgence and Reconciliation: Indigenous-Settler Relations and Earth Teachings*. University of Toronto Press.

Assembly of First Nations. (2015a). *04/29/15 Canada 2020 – First Nations, Fiscal Equity & Resource Sovereignties: The Path to Closing the Development Gap*. AFN News. http://www.afn.ca/uploads/files/final_3_nc_spkg_notes_canada_2020_public.pdf

Assembly of First Nations. (2015b). *7/15/15 Assembly of First Nations National Chief Urges Premiers for Action in Partnership, Presses Federal Government to Come to the Table*. News. http://www.afn.ca/2015/07/20/7-15-15-assembly-of-first-nations-national-chief-urges-premiers-for-ac/

Assembly of First Nations. (2019). *Honoring promises: 2019 Federal Election Priorities for First Nations*. https://www.afn.ca/wp-content/uploads/2019/09/Honouring-Promises_ENG_Rev.pdf

Avelino, F. (2017). Power in sustainability transitions: Analysing power and (dis)empowerment in transformative change towards sustainability. *Environmental Policy and Governance*, *27*(6), 505–520. https://doi.org/10.1002/eet.1777

Avelino, F., Grin, J., Pel, B., & Jhagroe, S. (2016). The politics of sustainability transitions. *Journal of Environmental Policy and Planning*, *18*(5), 557–567. https://doi.org/10.1080/1523908X.2016.1216782

Avelino, F., & Wittmayer, J. M. (2016). Shifting power relations in sustainability transitions: A multi-actor perspective. *Journal of Environmental Policy and Planning*, *18*(5), 628–649. https://doi.org/10.1080/1523908X.2015.1112259

Bacchiocchi, E., Sant, I., & Bates, A. (2022). Energy Justice and the Co-opting of Indigenous

Narratives in U.S. Offshore Wind Development. *Renewable Energy Focus*, *41*. https://doi.org/10.1016/J.REF.2022.02.008

Ballinger, C., & Payne, S. (2000). Discourse Analysis: Principles, Applications and Critique. *British Journal of Occupational Therapy*, *63*(12), 566–572. http://journals.sagepub.com/doi/pdf/10.1177/030802260006301202

Baril, H., & Journet, P. (2013, May 10). Appels d'offres en éolien: les grands consommateurs ne veulent pas payer. *La Presse*. https://www.lapresse.ca/affaires/economie/energie-et-ressources/201305/10/01-4649638-appels-doffres-en-eolien-les-grands-consommateurs-ne-veulent-pas-payer.php

Barroco Fontes Cunha, F., Carani, C., Nucci, C. A., Castro, C., Santana Silva, M., & Andrade Torres, E. (2021). Transitioning to a low carbon society through energy communities: Lessons learned from Brazil and Italy. *Energy Research & Social Science*, *75*, 101994. https://doi.org/10.1016/j.erss.2021.101994

Bauwens, T. (2016). Explaining the diversity of motivations behind community renewable energy. *Energy Policy*, *93*, 278–290. https://doi.org/10.1016/j.enpol.2016.03.017

Bauwens, T., & Devine-Wright, P. (2018). Positive energies? An empirical study of community energy participation and attitudes to renewable energy. *Energy Policy*, *118*, 612–625. https://doi.org/10.1016/j.enpol.2018.03.062

Baxter, J., & Eyles, J. (1997). Evaluating qualitative research in social geography: establishing 'rigour'in interview analysis. *Transactions of the Institute of British Geographers*, *22*(4), 505–525.

Baxter, J., Morzaria, R., & Hirsch, R. (2013). A case-control study of support/opposition to wind turbines: Perceptions of health risk, economic benefits, and community conflict. *Energy Policy*, *61*, 931–943. https://doi.org/10.1016/j.enpol.2013.06.050

Baxter, J., Walker, C., Ellis, G., Devine-Wright, P., Adams, M., & Fullerton, R. S. (2020). Scale, history and justice in community wind energy: An empirical review. *Energy Research and Social Science*, *68*, 101532. https://doi.org/10.1016/j.erss.2020.101532

Bell, S. E., Daggett, C., & Labuski, C. (2020). Toward feminist energy systems: Why adding women and solar panels is not enough. *Energy Research and Social Science*, *68*, 101557. https://doi.org/10.1016/j.erss.2020.101557

Berka, A. L., & Creamer, E. (2018). Taking stock of the local impacts of community owned renewable energy: A review and research agenda. *Renewable and Sustainable Energy Reviews*, *82*, 3400–3419. https://doi.org/10.1016/J.RSER.2017.10.050

Berka, A. L., MacArthur, J. L., & Gonnelli, C. (2020). Explaining inclusivity in energy transitions: Local and community energy in Aotearoa New Zealand. *Environmental Innovation and Societal Transitions*, *34*, 165–182. https://doi.org/10.1016/j.eist.2020.01.006

Bethlehem, J. (2010). Selection Bias in Web Surveys. *International Statistical Review*, *78*(2), 161–188. https://doi.org/10.1111/J.1751-5823.2010.00112.X

Bhattacharyya, J. (1995). Solidarity and Agency: Rethinking Community Development. In *Human Organization* (Vol. 54, Issue 1). http://sfaajournals.net/doi/pdf/10.17730/humo.54.1.m459ln688536005w

Bidwell, D. (2016). Thinking through participation in renewable energy decisions. *Nature Energy*, *1*(5), 16051. https://doi.org/10.1038/nenergy.2016.51

Blaser, M. (2004). Life Projects: Indigenous Peoples' Agency and Development. In G. McRae, M. Blaser, & H. A. Feit (Eds.), *In the way of development: indigenous peoples, life projects, and globalization*. Zed Books in association with International Development Research Centre. https://books.scholarsportal.info/en/read?id=/ebooks/ebooks0/gibson_crkn/2009-12-01/3/405831#page=13

Blumenthal, D. S. (2011). Is community-based participatory research possible? *American Journal of Preventive Medicine*, *40*(3), 386–389. https://doi.org/10.1016/j.amepre.2010.11.011

Bolinger, M. (2001). *Community Wind Power Ownership Schemes in Europe and their Relevance to the United States Environmental Energy Technologies Division Disclaimer*. http://eetd.lbl.gov/EA/EMP/

Bomberg, E., & Mcewen, N. (2012). Mobilizing community energy. *Energy Policy*, *51*, 435–444. https://doi.org/10.1016/j.enpol.2012.08.045

Bonaiuto, M., Breakwell, G. M., & Cano, I. (1996). Identity Processes and Environmental Threat: the Effects of Nationalism and Local Identity upon Perception of Beach Pollution. *Journal of Community & Applied Social Psychology*, *6*, 157–175. https://doi.org/10.1002/(SICI)1099-1298(199608)6:3

Borrows, J. (1997). Living between Water and Rocks: First Nations, Environmental Planning and Democracy. *The University of Toronto Law Journal*, *47*(4), 417–468. https://www.jstor.org/stable/825948?seq=1&cid=pdf-reference#references_tab_contents

Bosley, P., & Bosley, K. (1988). Public Acceptability of California's Wind Energy Developments: Three Studies. *Wind Engineering*, *12*(5), 311–318. https://www-jstor-org.proxy1.lib.uwo.ca/stable/pdf/43749355.pdf?ab_segments=0%252Fbasic_search%252Fcontrol&refreqid=excelsior%3A9e4c470c0e4b3208160f9a14b3d9ad4b

Boudet, H. S. (2019). Public perceptions of and responses to new energy technologies. In *Nature Energy* (Vol. 4, Issue 6, pp. 446–455). Nature Publishing Group. https://doi.org/10.1038/s41560-019-0399-x

Boutet, J.-S. (2014). Opening Ungava to industry: a decentring approach to indigenous history in subarctic Québec, 1937-54. *Cultural Geographies*, *21*(1), 79–97. https://doi.org/10.1177/1474474012469761

Bowleg, L. (2021). "The Master's Tools Will Never Dismantle the Master's House": Ten Critical Lessons for Black and Other Health Equity Researchers of Color: *Health Education & Behavior*, *48*(3), 237–249. https://doi.org/10.1177/10901981211007402

Brayboy, B. M., & Deyhle, D. (2000). Insider-Outsider: Researchers in American Indian Communities. *Theory Into Practice*, *39*(3), 163–169. https://doi.org/10.1207/s15430421tip3903_7

Bridge, G., Barr, S., Bouzarovski, S., Bradshaw, M., Brown, E., Bulkeley, H., Walker, G., Bridge, G., Barr, S., Bouzarovski, S., Bradshaw, M., Brown, E., Bulkeley, H., & Walker, G. (2018).

Energy and society: A Critical Perspective. In *Energy and Society* (1st ed.). Routledge. https://doi.org/10.4324/9781351019026-1

Bridge, G., Bouzarovski, S., Bradshaw, M., & Eyre, N. (2013). Geographies of energy transition: Space, place and the low-carbon economy. *Energy Policy*, *53*, 331–340. https://doi.org/10.1016/j.enpol.2012.10.066

Brinkman, J., & Hirsh, R. F. (2017). Welcoming wind turbines and the pimby ("please in my backyard") phenomenon the culture of the machine in the rural american midwest. *Technology and Culture*, *58*(2), 335–367. https://doi.org/10.1353/tech.2017.0039

Bryant, R. L. (1998). Power, knowledge and political ecology in the third world: a review. *Progress in Physical Geography*, *22*(1), 79–94. https://journals.sagepub.com/doi/pdf/10.1177/030913339802200104

Burridge, R. (2011, June 29). M'Chigeeng launches wind farm, first for an Ontario First Nation | The Manitoulin Expositor. *The Manitoulin Expositor*. https://www.manitoulin.com/mchigeeng-launches-wind-farm-first-for-an-ontario-first-nation/

Campbell, D. (2011). More than Wind: Evaluating Renewable Energy Opportunities for First Nations in Nova Scotia and New Brunswick. *Aboriginal Policy Research Consortium International (APRCi)*. https://ir.lib.uwo.ca/aprci/206

Canada. (2019). *Canada. 2019 National Inventory Report (NIR)*. https://unfccc.int/documents/194925

Canada Energy Regulator. (2021). *Canada's Renewable Power – Ontario*. https://www.cer-rec.gc.ca/en/data-analysis/energy-commodities/electricity/report/canadas-renewable-power/canadas-renewable-power/provinces/renewable-power-canada-ontario.html

Canadian Renewable Energy Association. (2020). *Installed Capacity*. https://canwea.ca/wind-energy/installed-capacity/

Canning, P. C. (2018). I Could Turn You to Stone: Indigenous Blockades in an Age of Climate

Change I Could Turn You to Stone: Indigenous Blockades in an Age of Climate Change. *The International Indigenous Policy Journal*, *9*(3). https://doi.org/10.18584/iipj.2018.9.3.7

Carney, R. (1995). Aboriginal residential schools before confederation: the early experience. *Historical Studies*, *61*(1), 13–40.

Castleden, H., Garvin, T., & First Nation, H. (2008). Modifying Photovoice for community-based participatory Indigenous research. *Social Science & Medicine*, *66*(6), 1393–1405. https://doi.org/10.1016/J.SOCSCIMED.2007.11.030

CBC News. (2014, May 20). Dentist faces charges for refusing patients who support windfarm | CBC News. *CBC*. https://www.cbc.ca/news/canada/sudbury/dentist-faces-charges-for-refusing-patients-who-support-windfarm-1.2648181

CBC News. (2022a, April 5). N.L. government lifts 15-year ban on onshore wind farms | CBC News. *CBC News*. https://www.cbc.ca/news/canada/newfoundland-labrador/nl-wind-moratorium-lifts-1.6409296

CBC News. (2022b, April 7). 5 Anishinabek First Nations in Ontario sign agreement with Ottawa that would allow them to self-govern | CBC News. *CBC News*. https://www.cbc.ca/news/canada/sudbury/sudbury-anishnabek-nation-self-governance-1.6412012

Chambers, N. A. (2011). Truth and Reconciliation: A "Dangerous Opportunity" to Unsettle Ourselves. In G. Younging, J. Dewar, & M. DeGagné (Eds.), *Response, Responsibility, and Renewal: Canada's Truth and Reconciliation Journey* (pp. 259–275).

Cherp, A., & Jewell, J. (2011). The three perspectives on energy security: intellectual history, disciplinary roots and the potential for integration. *Current Opinion in Environmental Sustainability*, *3*, 202–212. https://doi.org/10.1016/j.cosust.2011.07.001

Cherp, A., Vinichenko, V., Jewell, J., Brutschin, E., & Sovacool, B. K. (2018). Integrating techno-economic, socio-technical and political perspectives on national energy transitions: A meta-theoretical framework. *Energy Research & Social Science*, *37*, 175–190. https://doi.org/10.1016/j.erss.2017.09.015

Chilisa, B., & Tsheko, G. N. (2014). Mixed Methods in Indigenous Research. *Journal of Mixed Methods Research*, *8*(3), 222–233. https://doi.org/10.1177/1558689814527878

Cleland, M., Gattinger, M., Cleland, M., Aguirre, R., Beck, M., Bird, S., Fast, S., & Simard, L. (2017). *System under stress: Energy decision-making in Canada*. https://www.uottawa.ca/positive-energy/sites/www.uottawa.ca.positive-energy/files/systemunderstres_cleland_gattingerfnl_march2017.pdf

Clifford, N., French, S., & Valentine, G. (2010). *Key Methods in Geography* (2nd ed.). SAGE. http://www.dedoose.com/publications/key methods in geography.pdf

Collins, A. M. (2017). The Colonial Legacy: The Legal Oppression of Indigenous Women and Girls in Canada. *Glendon Journal of International Studies / Revue d'études Internationales de Glendon*, *10*(0), 1–22. https://gjis.journals.yorku.ca/index.php/gjis/article/view/40252/36428

Conger, J. A., & Kanungo, R. N. (1988). The Empowerment Process: Integrating Theory and Practice. *Academy of Management Review*, *13*(3), 471–482. https://doi.org/10.5465/amr.1988.4306983

Cook, D., Fitzgerald, E., Sayers, J., & Shaw, K. (2017). *First Nations and Renewable Energy Development in British Columbia*. http://dspace.library.uvic.ca/bitstream/handle/1828/7919/Shaw_Karena_First_Nations_Renewable_Energy_BC-2017.pdf?sequence=1&isAllowed=y

Cooke, M., & O'Sullivan, E. (2014). The impact of migration on the First Nations community cell-being index. *Social Indicators Research*, *122*(2), 371–389. https://doi.org/10.1007/s11205-014-0697-4

Coombes, B., Johnson, J. T., & Howitt, R. (2012a). Indigenous geographies I: Mere resource conflicts? The complexities in Indigenous land and environmental claims. *Progress Report*, *36*(6), 810–821. https://doi.org/10.1177/0309132511431410

Coombes, B., Johnson, J. T., & Howitt, R. (2012b). Indigenous geographies II: The aspirational spaces in postcolonial politics-reconciliation, belonging and social provision. *Progress in*

Human Geography, *37*(5), 691–700. https://doi.org/10.1177/0309132512469590

Cornell, S. (2006). *Indigenous Peoples, Poverty and Self-Determination in Australia, New Zealand, Canada and the United States* (No. 2006–02; JOPNA). http://www.udallcenter.arizona.edu/jopna/pubs/jopna 2006_02_indigenous.pdf

Corntassel, J. (2012). Cultural Restoration in International Law: Pathways to Indigenous Self-Determination. *Canadian Journal of Human Rights*, *1*(1), 93–125.

Costanza, R. (1996). Ecological economics: Reintegrating the study of humans and nature. *Ecological Applications*, *6*(4), 978–990. https://www-jstor-org.proxy1.lib.uwo.ca/stable/pdf/2269581.pdf?ab_segments=0%252Fbasic_SYC-5187_SYC-5188%252F5187&refreqid=excelsior%3Ae74cc0db99e31aa0fb0fb48e5872fe2c

Coulthard, G. S. (2010a). Place Against Empire: Understanding Indigenous Anti-Colonialism. In *Affinities: A Journal of Radical Theory* (Vol. 4, Issue 2).

Coulthard, G. S. (2010b). *Subjects of Empire? Indigenous Peoples and the "Politics of Recognition" in Canada* [University of Victoria]. https://search.proquest.com/docview/814690036/fulltextPDF/F902A9AC33E44709PQ/1?accountid=15115

Coulthard, G. S. (2014). The Politics of Recognition in Colonial Contexts. In *Red Skin, White Masks: Rejecting the Colonial Politics of Recognition*. https://doi.org/10.5749/minnesota/9780816679645.001.0001

Creamer, E., Aiken, G. T., van Veelen, B., Walker, G., & Devine-Wright, P. (2019). Community renewable energy: What does it do? Walker and Devine-Wright (2008) ten years on. *Energy Research and Social Science*, *57*. https://doi.org/10.1016/j.erss.2019.101223

Curry, B., & Mittelstaedt, M. (2008, December 12). Ottawa's stand at climate talks hurting native rights, chiefs say. *The Globe and Mail*. https://www.theglobeandmail.com/news/national/ottawas-stand-at-climate-talks-hurting-native-rights-chiefs-say/article20391039/

Daigle, M. (2016). Awawanenitakik: The spatial politics of recognition and relational geographies of Indigenous self-determination. *The Canadian Geographer / Le Géographe Canadien*, *60*(2), 259–269. https://doi.org/10.1111/cag.12260

Daigle, M., & Ramírez, M. M. (2019). Decolonial geographies. In Antipode Editorial Collective (Ed.), *Keywords in Radical Geography: Antipode at 50* (pp. 78–84). John Wiley & Sons Ltd. https://doi.org/10.1002/9781119558071.CH14

Dalhousie University. (n.d.). *Indigenous Studies*. Retrieved July 29, 2022, from https://dal.ca.libguides.com/c.php?g=576634&p=4205601

Davine, T., Lawhon, M., & Pierce, J. (2017). Place-making at a national scale: Framing tar sands extraction as "Canadian" in The Globe and Mail. *The Canadian Geographer / Le Géographe Canadien*, *61*(3), 428–439. https://doi.org/10.1111/cag.12392

Davis, L. (2010). *Alliances: Re/envisioning indigenous-non-indigenous relationships*. University of Toronto Press.

De Costa, R. (2017). Discursive institutions in non-transitional societies: The Truth and Reconciliation Commission of Canada. *International Political Science Review*, *38*(2), 185–199. https://doi.org/10.1177/0192512116667729

Delafield, G., Donnison, C., Roddis, P., Arvanitopoulos, T., Sfyridis, A., Dunnett, S., Ball, T., & Logan, K. G. (2021). Conceptual framework for balancing society and nature in net-zero energy transitions. *Environmental Science & Policy*, *125*, 189–201. https://doi.org/10.1016/J.ENVSCI.2021.08.021

Denzin, N. K. (2008). The new paradigm dialogs and qualitative inquiry. *International Journal of Qualitative Studies in Education*, *21*(4), 315–325. https://doi.org/10.1080/09518390802136995

Deudney, D., & Flavin, C. (1983). *Renewable Energy. The Power to Choose.* ERIC.

Devine-Wright, P. (2005). Beyond NIMBYism: towards an integrated framework for understanding public perceptions of wind energy. *Wind Energy*, *8*(2), 125–139.

https://doi.org/10.1002/we.124

Devine-Wright, P. (2009). Rethinking NIMBYism: The role of place attachment and place identity in explaining place-protective action. *Journal of Community & Applied Social Psychology*, *19*(6), 426–441. https://doi.org/10.1002/casp.1004

Devine-Wright, P., & Howes, Y. (2010). Disruption to place attachment and the protection of restorative environments: A wind energy case study. *Journal of Environmental Psychology*, *30*(3), 271–280. https://doi.org/10.1016/j.jenvp.2010.01.008

Devine-Wright, P., & Wiersma, B. (2020). Understanding community acceptance of a potential offshore wind energy project in different locations: An island-based analysis of 'place-technology fit.' *Energy Policy*, *137*, 111086. https://doi.org/10.1016/j.enpol.2019.111086

Diaz-Bone, R., Bührmann, A., Encarnación Gutiérrez, Schneider, W., & Kendall, G. (2008). The Field of Foucaultian Discourse Analysis: Structures, Developments and Perspectives. *Historical Social Research / Historische Sozialforschung*, *33*(1(123)).

Dickson, C., & Watson, B. (2021, May 27). Remains of 215 children found buried at former B.C. residential school, First Nation says | CBC News. *CBC News*. https://www.cbc.ca/news/canada/british-columbia/tk-emlúps-te-secwépemc-215-children-former-kamloops-indian-residential-school-1.6043778

Dillman, D. A. (1991). The Design and Administration of Mail Surveys. *Annual Review of Sociology*, *17*, 225–249. https://www.jstor.org/stable/2083342

Diógenes, J. R. F., Claro, J., Rodrigues, J. C., & Loureiro, M. V. (2020). Barriers to onshore wind energy implementation: A systematic review. *Energy Research and Social Science*, *60*. https://doi.org/10.1016/J.ERSS.2019.101337

Dockery, A. M. (2010). Culture and Wellbeing: The Case of Indigenous Australians. *Social Indicators Research*, *99*(2), 315–332. https://doi.org/10.1007/S11205-010-9582-Y/TABLES/6

Donald, J., Axsen, J., Shaw, K., & Robertson, B. (2021). Sun, wind or water? Public support for

large-scale renewable energy development in Canada. *Journal of Environmental Policy & Planning*, 1–19. https://doi.org/10.1080/1523908X.2021.2000375

Dorrell, M. (2009). From Reconciliation to Reconciling: Reading What " We Now Recognize " in the Government of Canada's 2008 Residential Schools Apology. *Project MUSE*, *35*(1), 27–45. https://doi.org/10.1353/esc.0.0165

Dosi, G. (1982). Technological paradigms and technological trajectories. A suggested interpretation of the determinants and directions of technical change. *Research Policy*, *11*(3), 147–162. https://doi.org/10.1016/0048-7333(82)90016-6

Dreveskracht, R. D. (2011). Native Nation Economic Development via the Implementation of Solar Projects: How to Make It Work. *Washington and Lee Law Review*, *68*(1), 28–112.

Dunlap, A. (2018). The 'solution' is now the 'problem:' wind energy, colonisation and the 'genocide-ecocide nexus' in the Isthmus of Tehuantepec, Oaxaca. *International Journal of Human Rights*, *22*(4), 550–573. https://doi.org/10.1080/13642987.2017.1397633

Durham, M. G., & Kellner, D. M. (2009). *Media and cultural studies: Keyworks*. John Wiley & Sons.

Dyck, N., & Sadik, T. (2016). Indigenous Political Organization and Activism in Canada. In *The Canadian Encyclopedia* (15 April 2). https://www.thecanadianencyclopedia.ca/en/article/aboriginal-people-political-organization-and-activism

El Bilali, H. (2019). The multi-level perspective in research on sustainability transitions in agriculture and food systems: A systematic review. In *Agriculture (Switzerland)* (Vol. 9, Issue 4). MDPI AG. https://doi.org/10.3390/agriculture9040074

Escobar, A. (2011). Sustainability: Design for the pluriverse. *Development*, *54*(2), 137–140. https://doi.org/10.1057/dev.2011.28

Fairclough, N. (1993). Critical discourse analysis and the marketization of public discourse: The universities. *Discourse & Society*, *4*(2), 133–168.

http://journals.sagepub.com/doi/pdf/10.1177/0957926593004002002

Fast, S., & Mabee, W. (2015). Place-making and trust-building: The influence of policy on host community responses to wind farms. *Energy Policy*, *81*, 27–37. https://doi.org/10.1016/j.enpol.2015.02.008

Fast, S., Mabee, W., Baxter, J., Christidis, T., Driver, L., Hill, S. D., McMurtry, J. J., & Tomkow, M. (2016). Lessons learned from Ontario wind energy disputes. *Nature Energy*, *1*(2), 15028. https://doi.org/10.1038/nenergy.2015.28

Fathoni, H. S., Setyowati, A. B., & Prest, J. (2021). Is community renewable energy always just? Examining energy injustices and inequalities in rural Indonesia. *Energy Research & Social Science*, *71*, 101825. https://doi.org/10.1016/J.ERSS.2020.101825

Faulconbridge, G. (2021, November 24). A new republic is born: Barbados celebrates ditching Britain's queen | Reuters. *Reuters*. https://www.reuters.com/world/americas/new-republic-is-born-barbados-celebrates-ditching-britains-queen-2021-11-24/

Feltham-King, T., & Macleod, C. (2016). How content analysis may complement and extend the insights of discourse analysis: an example of research on constructions of abortion in South African newspapers 1978–2005. *International Journal of Qualitative Methods*, *15*(1), 1609406915624575.

Feola, G., & Jaworska, S. (2019). One transition, many transitions? A corpus-based study of societal sustainability transition discourses in four civil society's proposals. *Sustainability Science*, *14*(6), 1643–1656. https://doi.org/10.1007/s11625-018-0631-9

Ferrara, N. (2015). *Reconciling and Rehumanizing Indigenous–Settler Relations: An Applied Anthropological Perspective*. Lexington Books. https://books.google.ca/books?hl=en&lr=&id=wFq3BgAAQBAJ&oi=fnd&pg=PR7&dq=ferrara,+nadia+reconciling+and+rehumanizing&ots=1C1iMJ2tu8&sig=Dl5HcZx2Pd_UikLB8oZxBZxXMGk#v=onepage&q=ferrara%2C nadia reconciling and rehumanizing&f=false

Finegan, C. (2018). Reflection, Acknowledgement, and Justice: A Framework for Indigenous-Protected Area Reconciliation Reflection, Acknowledgement, and Justice: A Framework for

Indigenous-Protected Area Reconciliation. *The International Indigenous Policy Journal*, *9*(3). https://doi.org/10.18584/iipj.2018.9.3.3

Firestone, J., Hoen, B., Rand, J., Elliott, D., Hübner, G., & Pohl, J. (2018). Reconsidering barriers to wind power projects: community engagement, developer transparency and place. *Journal of Environmental Policy and Planning*, *20*(3). https://doi.org/10.1080/1523908X.2017.1418656

Fischhendler, I., Herman, L., Barr, A., & Rosen, G. (2021). The impact of community split on the acceptance of wind turbines. *Solar Energy*, *220*, 51–62. https://doi.org/10.1016/j.solener.2021.01.055

Fitzgerald, E. (2018). *Powering Self-Determination: Indigenous Renewable Energy Developments in British Columbia* [University of Victoria]. http://dspace.library.uvic.ca/bitstream/handle/1828/10475/Fitzgerald_Eryn_MA_2018.pdf?sequence=1&isAllowed=y

Flanagan, T. (2019). *The Wealth of First Nations*. https://www.fraserinstitute.org/sites/default/files/wealth-of-first-nations-2019.pdf

Flyvbjerg, B. (2006). Five Misunderstandings About Case-Study Research. *Qualitative Inquiry*, *12*(2), 219–245. https://doi.org/10.1177/1077800405284363

Foucault, M. (2002). *Archaeology of knowledge* (2nd ed.). Routledge. https://doi.org/10.4324/9780203604168

Fournis, Y., & Fortin, M.-J. (2017). From social ‘acceptance’ to social ‘acceptability’ of wind energy projects: towards a territorial perspective. *Journal of Environmental Planning and Management*, *60*(1), 1–21. https://doi.org/10.1080/09640568.2015.1133406

Fraser, N. (1995). From Redistribution to Recognition? Dilemmas of Justice in a “Post-Socialist” Age. *New Left Review*, *212*. https://newleftreview-org.proxy1.lib.uwo.ca/issues/i212/articles/nancy-fraser-from-redistribution-to-recognition-dilemmas-of-justice-in-a-post-socialist-age

Fullerton, R. S., & Patterson, M. J. (2008). “Killing” the True Story of First Nations: The Ethics of Constructing a Culture Apart. *Journal of Mass Media Ethics*, *23*, 201–218. https://doi.org/10.1080/08900520802222019

Garrick, R. (2017, November 22). ‘We are an industry’: Wesley-Esquimaux says at Indigenous Knowledge Conference. *Anishinabek News*. http://anishinabeknews.ca/2017/11/22/we-are-an-industry-wesley-esquimaux-says-at-indigenous-knowledge-conference/

Garrity, Z. (2010). Discourse Analysis, Foucault and Social Work Research Identifying Some Methodological Complexities. *Journal of Social Work*, *10*(2), 193–210. https://doi.org/10.1177/1468017310363641

Geels, F. W. (2002). Technological transitions as evolutionary reconfiguration processes: a multi-level perspective and a case-study. *Research Policy*, *31*(8–9), 1257–1274.

Geels, F. W. (2014). Regime resistance against low-carbon Transitions: Introducing politics and power into the multi-level perspective. *Theory, Culture & Society*, *31*(5). https://doi.org/10.1177/0263276414531627

Geels, F. W. (2018a). Disruption and low-carbon system transformation: Progress and new challenges in socio-technical transitions research and the Multi-Level Perspective. *Energy Research & Social Science*, *37*, 224–231. https://doi.org/10.1016/j.erss.2017.10.010

Geels, F. W. (2018b). Low-carbon transition via system reconfiguration? A socio-technical whole system analysis of passenger mobility in Great Britain (1990–2016). *Energy Research and Social Science*, *46*, 86–102. https://doi.org/10.1016/j.erss.2018.07.008

Geels, F. W., Schwanen, T., Sorrell, S., Jenkins, K., & Sovacool, B. K. (2018). Reducing energy demand through low carbon innovation: A sociotechnical transitions perspective and thirteen research debates. *Energy Research & Social Science*, *40*, 23–35. https://doi.org/10.1016/j.erss.2017.11.003

Geels, F. W., Sovacool, B. K., Schwanen, T., & Sorrell, S. (2017). The Socio-Technical Dynamics of Low-Carbon Transitions. *Joule*, *1*(3), 463–479. https://doi.org/10.1016/j.joule.2017.09.018

Generation Energy Council. (2018). *Canada's Energy Transition*. http://www.nrcan.gc.ca/sites/www.nrcan.gc.ca/files/energy/CoucilReport_june27_English_Web.pdf

Gibbins, R. (2017). *Power to Excel Building a policy linchpin for the future of Canada's energy system*. http://www.nrcan.gc.ca/sites/www.nrcan.gc.ca/files/energy/energy-resources/Power_to_Excel.pdf

Gipe, P. (1993). The Wind Industry's Experience with Aesthetic Criticism. *Leonardo*, *26*(3), 16. https://muse.jhu.edu/article/606667/pdf

Gombay, N., & Palomino-Schalscha, M. (2018). Indigenous Places and Colonial Spaces The Politics of Intertwined Relations. In *Indigenous Places and Colonial Spaces: The Politics of Intertwined Relations* (1st ed.). Routledge. https://doi.org/10.4324/9781315472539

Government of Canada. (1998). *Statement of Reconciliation*. https://www.rcaanc-cirnac.gc.ca/eng/1100100015725/1571590271585

Government of Canada. (2016). *Pan Canadian Framework on Clean Growth and Climate Change*. http://publications.gc.ca/collections/collection_2017/eccc/En4-294-2016-eng.pdf

Government of Canada. (2017). *Pan-Canadian Framework on Clean Growth and Climate Change, First Annual Synthesis Report on the Status of Implementation*. https://www.canada.ca/content/dam/themes/environment/weather/climatechange/PCF-FirstSynthesis_ENG.pdf

Government of Canada. (2020). *Government of Canada charts course for clean growth by introducing bill to legislate net-zero emissions by 2050 - Canada.ca*. https://www.canada.ca/en/environment-climate-change/news/2020/11/government-of-canada-charts-course-for-clean-growth-by-introducing-bill-to-legislate-net-zero-emissions-by-2050.html

Government of Canada. (2021a, September 29). *National Day for Truth and Reconciliation - Canada.ca*. https://www.canada.ca/en/canadian-heritage/campaigns/national-day-truth-reconciliation.html

Government of Canada. (2021b, December). *Mandate Letters | Prime Minister of Canada*. Prime Minister of Canada News. https://pm.gc.ca/en/mandate-letters

Government of Canada. (2022a, March 29). *Net-Zero Emissions by 2050* . https://www.canada.ca/en/services/environment/weather/climatechange/climate-plan/net-zero-emissions-2050.html

Government of Canada. (2022b, April 6). *Prime Minister to co-chair the United Nations Sustainable Development Goals Advocates group | Prime Minister of Canada*. Prime Minister of Canada News. https://pm.gc.ca/en/news/news-releases/2022/04/06/prime-minister-co-chair-united-nations-sustainable-development-goals

Government of Ontario. (2013). *Ontario's long-term rnergy plan 2013: Achieving balance* (ISBN 978-1-4606-3188-1). http://www.energy.gov.on.ca/en/files/2014/10/LTEP_2013_English_WEB.pdf

Government of Ontario. (2016). *Ontario's five year climate change action plan 2016 – 2020*. http://www.applications.ene.gov.on.ca/ccap/products/CCAP_ENGLISH.pdf

Government of Ontario. (2017). *Ontario's long-term energy plan 2017: Delivering fairness and choice*. https://files.ontario.ca/books/ltep2017_0.pdf

Governor General of Canada. (2021). *Governor General Mary Simon | The Governor General of Canada*. https://www.gg.ca/en/governor-general/governor-general-mary-simon

Greckhamer, T., & Cilesiz, S. (2014). Rigor, transparency, evidence, and representation in discourse analysis: Challenges and recommendations. *International Journal of Qualitative Methods*, *13*(1), 422–443.

Green, J. (2003). Decolonization and recolonization in Canada. In W. Clement & L. F. Vosko (Eds.), *Changing Canada: Political economy as transformation*. McGill-Queen's Press-MQUP. https://books.scholarsportal.info/en/read?id=/ebooks/ebooks0/gibson_crkn/2009-12-01/1/400014#page=111

Green, J. (2009). The Complexity of Indigenous Identity Formation and Politics in Canada.

International Journal of Critical Indigenous Studies, *2*(2), 36–46. https://doi.org/10.5204/ijcis.v2i2.29

Green, J. (2016). Red Skin, White Masks: Rejecting the Colonial Politics of Recognition by Glen Coulthard (review). *Great Plains Quarterly*, *36*(4), 327–328. https://muse.jhu.edu/article/643681

Gregory, R. S. (2017). The Troubling Logic of Inclusivity in Environmental Consultations. *Science, Technology, & Human Values*, *42*(1), 144–165. https://doi.org/10.1177/0162243916664016

Gross, C. (2007). Community perspectives of wind energy in Australia: The application of a justice and community fairness framework to increase social acceptance. *Energy Policy*, *35*, 2727–2736. https://doi.org/10.1016/j.enpol.2006.12.013

Grubler, A. (2012). Energy transitions research: Insights and cautionary tales. *Energy Policy*, *50*, 8–16. https://doi.org/10.1016/j.enpol.2012.02.070

Grubler, A., Wilson, C., & Nemet, G. (2016). Apples, oranges, and consistent comparisons of the temporal dynamics of energy transitions. *Energy Research & Social Science*, *22*, 18–25. https://doi.org/10.1016/j.erss.2016.08.015

Hager, C., & Haddad, M. A. (2015). *NIMBY is beautiful: Cases of local activism and environmental innovation around the world*. Berghahn Books. https://ebookcentral-proquest-com.proxy1.lib.uwo.ca/lib/west/detail.action?docID=1707827

Hajer, M., & Versteeg, W. (2005). A decade of discourse analysis of environmental politics: Achievements, challenges, perspectives. *Journal of Environmental Policy & Planning*, *7*(3), 175–184. https://doi.org/10.1080/15239080500339646

Haley, B. (2014). Promoting low-carbon transitions from a two-world regime: Hydro and wind in Québec, Canada. *Energy Policy*, *73*, 777–788. https://doi.org/10.1016/j.enpol.2014.05.015

Hall, N., Ashworth, P., & Devine-Wright, P. (2013). Societal acceptance of wind farms: Analysis of four common themes across Australian case studies. *Energy Policy*, *58*, 200–208.

https://doi.org/10.1016/J.ENPOL.2013.03.009

Hallenbeck, J. (2015). Returning to the water to enact a treaty relationship: the Two Row Wampum Renewal Campaign Returning to the water to enact a treaty relationship: the Two Row Wampum Renewal Campaign. *Settler Colonial Studies*, *5*(4). https://doi.org/10.1080/2201473X.2014.1000909

Hammami, S. M., Chtourou, S., & Triki, A. (2016). Identifying the determinants of community acceptance of renewable energy technologies: The case study of a wind energy project from Tunisia. *Renewable and Sustainable Energy Reviews*, *54*, 151–160. https://doi.org/10.1016/J.RSER.2015.09.037

Harding, R. (2006). Historical representations of aboriginal people in the Canadian news media. *Discourse & Society*, *17*(2), 205–235. https://doi.org/10.1177/0957926506058059

Harris, M., Beck, M., & Gerasimchuk, I. (2015). *The end of coal: Ontario's coal phase-out*. https://www.iisd.org/sites/default/files/publications/end-of-coal-ontario-coal-phase-out.pdf

Hayter, D., & Hegarty, P. (2015). A genealogy of postmodern subjects: Discourse analysis and late capitalism. *Theory & Psychology*, *25*(3), 369–387. https://doi.org/10.1177/0959354314553966

Hayward, A., Sjoblom, E., Sinclair, S., & Cidro, J. (2021). A New Era of Indigenous Research: Community-based Indigenous Research Ethics Protocols in Canada: *Journal of Empirical Research on Human Research Ethics*. https://doi.org/10.1177/15562646211023705

Heaman, M., Martens, P., Hart, L., Smylie, J., Agnew, E., Simonet, F., Wassimi, S., Fraser, W. D., & Luo, Z.-C. (2010). Does Living On-Reserve Versus Off-Reserve Make a Difference in First Nations Birth Outcomes in Manitoba, Canada? *Health Journal*, *4*, 39–45. https://mspace.lib.umanitoba.ca/bitstream/handle/1993/32739/Heaman_Maureen_OWHJ_2010.pdf?sequence=1&isAllowed=y

Hedenqvist, R., Pulé, P. M., Vetterfalk, V., & Hultman, M. (2021). Gender analysis of policy-making in construction and transportation. In G. L. Magnusdottir & A. Kronsell (Eds.), *Gender, Intersectionality and Climate Institutions in Industrialised States* (1st ed., pp. 143–

163). Routledge. https://doi.org/10.4324/9781003052821-11

Heffron, R. J. (2021). *The Challenge for Energy Justice*. Springer International Publishing. https://doi.org/10.1007/978-3-030-80097-0

Heffron, R. J., & McCauley, D. (2017). The concept of energy justice across the disciplines. *Energy Policy*, *105*, 658–667. https://doi.org/10.1016/j.enpol.2017.03.018

Henvey Inlet First Nation. (2018). *Henvey Inlet Wind :: Economic Benefits*. https://henveyinletwind.com/economic-benefits/

Hesse-Biber, S. (2010). Qualitative Approaches to Mixed Methods Practice. *Qualitative Inquiry*, *16*(6), 455–468. https://doi.org/10.1177/1077800410364611

Hoen, B., Firestone, J., Rand, J., Elliot, D., Hübner, G., Pohl, J., Wiser, R., Lantz, E., Haac, T. R., & Kaliski, K. (2019). Attitudes of U.S. Wind Turbine Neighbors: Analysis of a Nationwide Survey. *Energy Policy*, *134*, 110981. https://doi.org/10.1016/J.ENPOL.2019.110981

Hoffman, S. M., & High-Pippert, A. (2005). Community Energy: A Social Architecture for an Alternative Energy Future. *Bulletin of Science, Technology & Society*, *25*(5), 387–401. https://doi.org/10.1177/0270467605278880

Hoicka, C. E., & MacArthur, J. L. (2018). From tip to toes: Mapping community energy models in Canada and New Zealand. *Energy Policy*, *121*, 162–174. https://doi.org/10.1016/j.enpol.2018.06.002

Hoicka, C. E., Savic, K., & Campney, A. (2021). Reconciliation through renewable energy? A survey of Indigenous communities, involvement, and peoples in Canada. *Energy Research & Social Science*, *74*, 101897. https://doi.org/10.1016/j.erss.2020.101897

Holtom, B., Baruch, Y., Aguinis, H., & Ballinger, G. A. (2022). Survey response rates: Trends and a validity assessment framework. *Human Relations*, 1–25. https://doi.org/10.1177/00187267211070769

Hook, D. (2005). Genealogy, discourse, “effective history”: Foucault and the work of critique.

Qualitative Research in Psychology, *2*, 3–31. https://doi.org/10.1191/1478088705qp025oa

Howarth, D. R., Norval, A. J., & Stavrakakis, Y. (2000). *Discourse theory and political analysis: Identities, hegemonies and social change*. Manchester University Press.

Howsam, J. K. (2015). *The Canadian Truth and Reconciliation Commission: Healing, Reconciliation, Resolution? Graduate Program in Political Science* [Western Ontario]. http://ir.lib.uwo.ca/etd

Huesca-Pérez, M. E., Sheinbaum-Pardo, C., & Köppel, J. (2016). Social implications of siting wind energy in a disadvantaged region – The case of the Isthmus of Tehuantepec, Mexico. *Renewable and Sustainable Energy Reviews*, *58*, 952–965. https://doi.org/10.1016/j.rser.2015.12.310

Hughes, J. D. (2021). *Canada's Energy Sector Status, evolution, revenue, employment, production forecasts, emissions and implications for emissions reduction*. www.policyalternatives.ca

Hunter, D. (2019). John Cabot. In *The Canadian Encyclopedia*. https://www.thecanadianencyclopedia.ca/en/article/john-cabot

Hurlbert, M., & Rayner, J. (2018). Reconciling power, relations, and processes: The role of recognition in the achievement of energy justice for Aboriginal people. *Applied Energy*, *228*, 1320–1327. https://doi.org/10.1016/j.apenergy.2018.06.054

IEA. (2021a). *World Energy Outlook 2021* . https://www.iea.org/reports/world-energy-outlook-2021/executive-summary

IEA. (2021b). *Net Zero by 2050 - A Roadmap for the Global Energy Sector*. https://iea.blob.core.windows.net/assets/4719e321-6d3d-41a2-bd6b-461ad2f850a8/NetZeroby2050-ARoadmapfortheGlobalEnergySector.pdf

IESO. (2021). *A Progress Report on Contracted Electricity Supply*. https://ieso.ca/en/Learn/Ontario-Supply-Mix/Ontario-Energy-Capacity

Indigenous and Northern Affairs Canada. (2021, November). *First Nation Profiles - Registered*

Population M'Chigeeng First Nation. https://fnp-ppn.aadnc-aandc.gc.ca/fnp/Main/Search/FNRegPopulation.aspx?BAND_NUMBER=181&lang=eng

Inuit Tapiriit Kanatami. (2015). *The Climate Change Bind for Inuit: The Double Burden of Impacts & Campaigns*. News. https://www.itk.ca/the-climate-change-bind-for-inuit-the-double-burden-of-impacts-campaigns/

IRENA Coalition for Action. (2018). *Community Energy: Broadening the ownership of renewables*. https://coalition.irena.org/-/media/Files/IRENA/Coalition-for-Action/Publication/Coalition-for-Action_Community-Energy_2018.pdf

Jacklin, K., Pitawanakwat, K., Blind, M., Lemieux, A. M., Sobol, A., & Warry, W. (2020). Peace of mind: A community-industry-academic partnership to adapt dementia technology for Anishinaabe communities on Manitoulin Island. *Journal of Rehabilitation and Assistive Technologies Engineering*, *7*, 205566832095832. https://doi.org/10.1177/2055668320958327

Jaffar, A. (2015). *Establishing A Clean Economy or Strengthening Indigenous Sovereignty: Conflicting & Complementary Narratives for Energy Transitions* [University of Guelph]. http://atrium.lib.uoguelph.ca/xmlui/bitstream/handle/10214/9230/Jaffar_Atiya_201509_MA.pdf?sequence=1&isAllowed=y

Johansen, K. (2021). Blowing in the wind: A brief history of wind energy and wind power technologies in Denmark. *Energy Policy*, *152*, 112139. https://doi.org/10.1016/j.enpol.2021.112139

Johnstone, G., & van Ness, D. W. (2007). *Handbook of Restorative Justice*. Willan Publishing.

Kant, S., Vertinsky, I., Zheng, B., & Smith, P. M. (2014). Multi-Domain Subjective Wellbeing of Two Canadian First Nations Communities. *World Development*, *64*, 140–157. https://doi.org/10.1016/J.WORLDDEV.2014.05.023

Karanasios, K. (2018). *Community choices: Pathways to integrate renewable energy into indigenous remote community energy systems* [University of Waterloo]. https://uwspace.uwaterloo.ca/bitstream/handle/10012/14200/Karanasios_Konstantinos.pdf?se

quence=3&isAllowed=y

Karanasios, K., & Parker, P. (2018). Technical solution or wicked problem? Diverse perspectives on indigenous community renewable electricity in Northern Ontario. *Journal of Enterprising Communities: People and Places in the Global Economy*, *12*(3), 322–345. https://doi.org/10.1108/JEC-11-2017-0085

Kekinusuqs. (2005). A Nation's economic catalyst: How small First Nations can use CED to rebuild their economic independence. *Making Waves*, *16*(4).

Kelly, L. (2013, July 29). Wind project reaping rewards for Manitoulin First Nation. *Northern Ontario Business*. https://www.northernontariobusiness.com/regional-news/elliot-lake-north-shore/wind-project-reaping-rewards-for-manitoulin-first-nation-369734

Kemp, R. (1994). The problem of technological regime shifts. *Futures*, *26*(10), 1023–1046. https://pdf.sciencedirectassets.com/271788/1-s2.0-S0016328700X01243/1-s2.0-001632879490071X/main.pdf?X-Amz-Security-Token=IQoJb3JpZ2luX2VjEO7%2F%2F%2F%2F%2F%2F%2F%2F%2F%2FwEaCXVzLWVhc3QtMSJGMEQCIDqJsCEP%2FaSOTpMD%2BGMmFSOx1ORIer9MgT6UH4PhB4gyAiAg3Ajs2xU17

Kern, F., & Markard, J. (2016). Analysing Energy Transitions: Combining Insights from Transition Studies and International Political Economy. In T. Van de Graaf, B. K. Sovacool, A. Ghosh, F. Kern, & M. T. Klare (Eds.), *The Palgrave Handbook of the International Political Economy of Energy* (1st ed. 20). Palgrave Macmillan UK.

Kim, E.-S., Chung, J.-B., & Seo, Y. (2018). Korean traditional beliefs and renewable energy transitions: Pungsu, shamanism, and the local perception of wind turbines. *Energy Research & Social Science*, *46*, 262–273. https://doi.org/10.1016/J.ERSS.2018.07.024

King, H., & Pasternak, S. (2018). *Canada's Emerging Indigenous Rights Framework: A Critical Analysis*. https://yellowheadinstitute.org/wp-content/uploads/2018/06/yi-rights-report-june-2018-final-5.4.pdf

Köhler, J., Geels, F. W., Kern, F., Markard, J., Wieczorek, A., Alkemade, F., Avelino, F., Bergek,

A., Boons, F., Fünfschilling, L., Hess, D. J., Holtz, G., Hyysalo, S., Jenkins, K., Kivimaa, P., Martiskai-Nen, M., Mcmeekin, A., Mühlemeier, M. S., Nykvist, B., … Wells, P. (2019). *An agenda for sustainability transitions research: State of the art and future directions*. https://transitionsnetwork.org/wp-content/uploads/2016/09/STRN_Research_Agenda_2019c-2.pdf

Kovach, M. (2009). *Indigenous methodologies: characteristics, conversations and contexts*. University of Toronto Press.

Krackle, J. (2015, December 3). Dokis Okikendawt Project brings green energy to Ontario consumers. *Anishinabek News*. http://anishinabeknews.ca/2015/12/03/dokis-okikendawt-project-brings-green-energy-to-ontario-consumers/

Krohn, S., & Damborg, S. (1999). On public attitudes towards wind power. *Renewable Energy*, *16*(1–4), 954–960. https://doi.org/10.1016/S0960-1481(98)00339-5

Krupa, J. (2012a). Blazing a new path forward: A case study on the renewable energy initiatives of the Pic River First Nation. *Environmental Development*, *3*, 109–122.

Krupa, J. (2012b). *Identifying barriers to aboriginal renewable energy deployment in Canada*. https://doi.org/10.1016/j.enpol.2011.12.051

Krupa, J., Galbraith, L., & Burch, S. (2015). Participatory and multi-level governance: applications to Aboriginal renewable energy projects. *Local Environment*, *20*(1). https://doi.org/10.1080/13549839.2013.818956

Lachance, N., & Rose, T. (2020). More than words: Outlining preconditions to collaboration among first nations, the federal government, and the provincial government. *The International Indigenous Policy Journal*, *11*(2), 1–26. https://doi.org/10.18584/IIPJ.2020.11.2.10692

LaDuke, W. (2006). Indigenous Power: a New Energy Economy. *Race, Poverty & the Environment*, *Summer*. http://www.reimaginerpe.org/files/La.Duke.Climate.Justice.pdf

Lai, H.-L. (2019). Situating community energy in development history: Place-making and identity

politics in the Taromak 100% green energy tribe initiative, Taiwan. *Geoforum*, *100*, 176–187. https://doi.org/10.1016/j.geoforum.2019.01.006

Lai, H.-L. (2021). Foregrounding the community: Geo-historical entanglements of community energy, environmental justice, and place in Taihsi Village, Taiwan. *Environment and Planning E: Nature and Space*. https://doi.org/10.1177/25148486211000745

Lamb, D. (2014). Aboriginal Early School Leavers On- and Off-Reserve: An Empirical Analysis. *Canadian Public Policy*, *40*(2), 156–165. https://doi.org/10.3138/CPP.2012-060

Langhelle, O., Meadowcroft, J., & Rosenbloom, D. (2019). Politics and Technology: Deploying the State to Accelerate Socio-Technical Transitions for Sustainability. In *What Next for Sustainable Development? Our Common Future at Thirty*. Edward Elgar. file:///C:/Users/cmangben/Downloads/ch13.pdf

Lawhon, M., & Murphy, J. T. (2011). Socio-technical regimes and sustainability transitions: Insights from political ecology. *Progress in Human Geography*, *36*(3), 354–378. https://doi.org/10.1177/0309132511427960

Lawrence, R. (2014). Internal colonisation and Indigenous resource sovereignty: wind power developments on traditional Saami lands. *Society and Space*, *32*, 1036–1053. https://doi.org/10.1068/d9012

Lee, T. R., Wren, B. A., & Hickman, M. E. (1989). Public Responses to the Siting and Operation of Wind Turbines. *Wind Engineering*, *13*(4), 188–195. https://www.jstor.org/stable/pdf/43749384.pdf?refreqid=excelsior%3A02d3ba8188edcc8dcb73a1e23f99bcf9

Leff, E. (2015). Political ecology: a Latin American perspective. *Desenvolvimento e Meio Ambiente*, *35*(35), 29–64.

Lehmann, R., & Tittor, A. (2021). Contested renewable energy projects in Latin America: bridging frameworks of justice to understand 'triple inequalities of decarbonisation policies.' *Journal of Environmental Policy & Planning*, 1–12. https://doi.org/10.1080/1523908X.2021.2000381

Lewis, D., Castleden, H., Apostle, R., Francis, S., & Francis-Strickland, K. (2021). Linking land displacement and environmental dispossession to Mi'kmaw health and well-being: Culturally relevant place-based interpretive frameworks matter. *The Canadian Geographer / Le Géographe Canadien*, *65*(1), 66–81. https://doi.org/10.1111/CAG.12656

Lewis, D., Williams, L., & Jones, R. (2020). A radical revision of the public health response to environmental crisis in a warming world: contributions of Indigenous knowledges and Indigenous feminist perspectives. *Canadian Journal of Public Health*, *111*(6), 897–900. https://doi.org/10.17269/S41997-020-00388-1

Li, J. (2009). Intertextuality and national identity: discourse of national conflicts in daily newspapers in the United States and China. *Discourse & Society*, *20*(1), 85–121. https://doi.org/10.1177/0957926508097096

Liming, H., Haque, E., & Barg, S. (2008). Public policy discourse, planning and measures toward sustainable energy strategies in Canada. *Renewable and Sustainable Energy Reviews*, *12*(1), 91–115. https://doi.org/10.1016/j.rser.2006.05.015

Lockwood, M., Kuzemko, C., Mitchell, C., & Hoggett, R. (2017). Historical institutionalism and the politics of sustainable energy transitions: A research agenda. *Politics and Space*, *35*(2), 312–333. https://doi.org/10.1177/0263774X16660561

Louis, R. P. (2007). Can You Hear us Now? Voices from the Margin: Using Indigenous Methodologies in Geographic Research. *Geographical Research*, *45*(2), 130–139. https://doi.org/10.1111/j.1745-5871.2007.00443.x

Lowan-Trudeau, G. (2017). Indigenous Environmental Education: The Case of Renewable Energy Projects. *Educational Studies*, *53*(6), 601–613. https://doi.org/10.1080/00131946.2017.1369084

M'Chigeeng First Nation. (2018). *M'Chigeeng First Nation - About us*. M'Chigeeng Website. http://www.mchigeeng.ca/about-us.html

Maar, M. A., Sutherland, M., & Mcgregor, L. (2007). A Regional Model for Ethical Engagement: The First Nations Research Ethics Committee on Manitoulin Island. In J. White, S. Wingert,

& D. Beavon (Eds.), *Aboriginal Policy Research Series Volume 4:Moving Forward, Making a Difference,"*. https://ir.lib.uwo.ca/cgi/viewcontent.cgi?article=1332&context=aprci

MacArthur, J. L., Hoicka, C. E., Castleden, H., Das, R., & Lieu, J. (2020). Canada's Green New Deal: Forging the socio-political foundations of climate resilient infrastructure? *Energy Research & Social Science*, *65*, 101442. https://doi.org/10.1016/J.ERSS.2020.101442

Macdonald, C., Glass, J., & Creamer, E. (2017). What Is the Benefit of Community Benefits? Exploring Local Perceptions of the Provision of Community Benefits from a Commercial Wind Energy Project. *Scottish Geographical Journal*, *133*(3–4), 172–191. https://doi.org/10.1080/14702541.2017.1406132

Macdonald, D., & Wilson, D. (2013). *Poverty or Prosperity: Indigenous Children in Canada* (Issue June). https://www.policyalternatives.ca/sites/default/files/uploads/publications/National Office/2013/06/Poverty_or_Prosperity_Indigenous_Children.pdf

Mang-Benza, C., & Baxter, J. (2021). Not paid to dance at the powwow: Power relations, community benefits, and wind energy in M'Chigeeng First Nation, Ontario, Canada. *Energy Research & Social Science*, *82*, 102301. https://doi.org/10.1016/J.ERSS.2021.102301

Mang-Benza, C., Baxter, J., & Fullerton, R. S. (2021). New Discourses on Energy Transition as an Opportunity for Reconciliation? Analyzing Indigenous and Non-Indigenous Communications in Media and Policy Documents. *The International Indigenous Policy Journal*, *12*(2), 1–27. https://doi.org/10.18584/iipj.2021.12.2.8641

Mang-Benza, C., & Hunsberger, C. (2020). Wandering identities in energy transition discourses: Political leaders' use of the "we" pronoun in Ontario, 2009–2019. *Canadian Geographer*, *64*(3), 516–529. https://doi.org/10.1111/cag.12610

Manuel, A., & Derrickson, G. C. R. (2017). *The reconciliation manifesto: Recovering the land, rebuilding the economy*. James Lorimer & Company.

Markard, J., Raven, R., & Truffer, B. (2012). Sustainability transitions: An emerging field of research and its prospects. *Research Policy*, *41*(6), 955–967.

https://doi.org/10.1016/j.respol.2012.02.013

Markard, J., Suter, M., & Ingold, K. (2016). Socio-technical transitions and policy change – Advocacy coalitions in Swiss energy policy. *Environmental Innovation and Societal Transitions*, *18*, 215–237. https://doi.org/10.1016/j.eist.2015.05.003

Marshall, T. (2013). *Indian Residential Schools Settlement Agreement | The Canadian Encyclopedia*. The Canadian Encyclopedia. https://www.thecanadianencyclopedia.ca/en/article/indian-residential-schools-settlement-agreement

Marshall, T. (2019). Oka Crisis. In *The Canadian Encyclopedia*. https://www.thecanadianencyclopedia.ca/en/article/oka-crisis

Maruyama, Y., Nishikido, M., & Iida, T. (2007). The rise of community wind power in Japan: Enhanced acceptance through social innovation. *Energy Policy*, *35*(5), 2761–2769. https://doi.org/10.1016/j.enpol.2006.12.010

Mazel, O. (2014). Development in the 'First World.' *Griffith Law Review*, *18*(2), 475–502. https://doi.org/10.1080/10383441.2009.10854651

Mccauley, D., Heffron, R. J., Stephan, H., & Jenkins, K. (2013). Advancing energy justice: the triumvirate of tenets. *International Energy Law Review*, *32*(3), 107–110. https://doi.org/http://hdl.handle.net/1893/18349

McCreary, T., & Milligan, R. (2014). Pipelines, permits, and protests: Carrier Sekani encounters with the Enbridge Northern Gateway Project. *Cultural Geographies*, *21*(1), 115–129. https://doi.org/10.1177/1474474013482807

McFarlane, P., & Schabus, N. (2017). *Whose land is it anyway? A manual for decolonization* (P. McFarlane & N. Schabus (eds.)). https://era.library.ualberta.ca/items/ff7e7ae7-e6ea-40ca-b64d-0c6d4910cae1/view/e63e4ec2-b369-4e85-8d59-f302ee3ad7cb/WLIIA_FPSEBC_2017.pdf

McGregor, D. (2009). Linking traditional knowledge and environmental practice in Ontario.

Journal of Canadian Studies, *43*(3), 69–100. https://www.utpjournals.press/doi/pdf/10.3138/jcs.43.3.69

McGregor, D. (2018a). Indigenous Environmental Justice, Knowledge, and Law. *Kalfou*, *5*(2), 279. https://doi.org/10.15367/kf.v5i2.213

McGregor, D. (2018b). Reconciliation and environmental justice. *Journal of Global Ethics*, *14*(2), 222–231. https://doi.org/10.1080/17449626.2018.1507005

Meadowcroft, J. (2009). What about the politics? Sustainable development, transition management, and long term energy transitions. *Policy Sciences*, *42*, 323–340. https://doi.org/10.1007/s11077-009-9097-z

Meadowcroft, J. (2011). Engaging with the politics of sustainability transitions. *Environmental Innovation and Societal Transitions*, *1*(1), 70–75. https://doi.org/10.1016/j.eist.2011.02.003

Meadowcroft, J. (2016). Let's Get This Transition Moving! *Canadian Public Policy*. https://doi.org/10.3138/cpp.2015-028

Middleton, B. R. (2015). Jahát Jat'totòdom: toward an indigenous political ecology. In *The International handbook of political ecology*. Edward Elgar Publishing.

Miles, B. (2010). Discourse Analysis. In N. J. Salkind (Ed.), *Encyclopedia of Research Design* (pp. 368–370). SAGE Publications. https://doi.org/10.4135/9781412961288.n115

Morton Ninomiya, M. E., & Pollock, N. J. (2017). Reconciling community-based Indigenous research and academic practices: Knowing principles is not always enough. *Social Science and Medicine*, *172*, 28–36. https://doi.org/10.1016/j.socscimed.2016.11.007

Nagy, R. (2014). The Truth and Reconciliation Commission of Canada: Genesis and Design. *Canadian Journal of Law and Society / Revue Canadienne Droit et Société*, *29*(2), 199–217. https://doi.org/10.1017/cls.2014.8

Narine, S. (2021, November 30). Quebec First Nations want to be full partners in sustainable economic development. *Windspeaker*. https://www.msn.com/en-ca/news/other/quebec-first-

nations-want-to-be-full-partners-in-sustainable-economic-development/ar-AARhfEE?ocid=msedgntp

Nixon, A., & Power, C. (2007). Towards a framework for establishing rigour in a discourse analysis of midwifery professionalisation. *Nursing Inquiry*, *14*(1), 71–79. https://doi.org/10.1111/j.1440-1800.2007.00352.x

NRCAN. (2018). *Generation Energy | Natural Resources Canada*. Generation Energy - Natural Resources Canada. https://www.nrcan.gc.ca/climate-change/canadas-green-future/generation-energy/20093

OECD. (2015). *System innovation: Synthesis report*.

OECD. (2016). *OECD Factbook 2015-2016: Economic, Environmental and Social Statistics Energy intensity*. https://doi.org/10.1787/FACTBOOK-2015-40-EN

Offen, K. H. (2004). Historical Political Ecology: An Introduction . *Historical Geography*, *32*, 19–42. https://ejournals.unm.edu/index.php/historicalgeography/article/viewFile/2952/2431

Ozog, S. (2012). *Towards First Nations energy self-sufficiency: Analyzing the renewable energy partnership between T'Sou-Ke Nation and Skidegate Band* [University of Victoria, BC]. https://search.proquest.com/docview/1026810820?pq-origsite=gscholar

Partzsch, L. (2017). 'Power with' and 'power to' in environmental politics and the transition to sustainability. *Environmental Politics*, *26*(2), 193–211. https://doi.org/10.1080/09644016.2016.1256961

Pasqualetti, M. J. (2000). Morality, space, and the power of wind-energy landscapes. *Geographical Review*, *90*(3), 381–394. https://doi.org/10.1111/j.1931-0846.2000.tb00343.x

Pasqualetti, M. J. (2011). Opposing Wind Energy Landscapes: A Search for Common Cause. *Annals of the Association of American Geographers*, *101*(4), 907–917. https://doi.org/10.1080/00045608.2011.568879

Paulson, S., Gezon, L. L., & Watts, M. (2005). Politics, ecologies, genealogies. *Political Ecology*

across Spaces, Scales, and Social Groups, 17–37.

Peet, R., Robbins, P., & Watts, M. (2010). Emerging problems in political ecology. In R. Peet, P. Robbins, & M. Watts (Eds.), *Global political ecology* (pp. 31–47). Routledge.

Perreault, T. A., Bridge, G., & McCarthy, J. (James P. . (2015). *Routledge handbook of political ecology*. Routledge. https://books.google.ca/books?id=yFTeCQAAQBAJ&dq=Perreault,+Thomas+Albert%3B+Bridge,+Gavin%3B+McCarthy,+James&lr=&source=gbs_navlinks_s

Petrova, M. A. (2016). From NIMBY to acceptance: Toward a novel framework — VESPA — For organizing and interpreting community concerns. *Renewable Energy*, *86*, 1280–1294. https://doi.org/10.1016/j.renene.2015.09.047

Phippen, W. J. (2016). *"Kill Every Buffalo You Can! Every Buffalo Dead Is an Indian Gone."* The Atlantic. https://www.theatlantic.com/national/archive/2016/05/the-buffalo-killers/482349/

Pierce, J., Martin, D. G., & Murphy, J. T. (2011). Relational place-making: the networked politics of place. *Transactions of the Institute of British Geographers*, *36*(1), 54–70. https://doi.org/10.1111/j.1475-5661.2010.00411.x

Powers, P. (2013). Rawlinson's Three Axes of Structural Analysis: A Useful Framework for a Foucauldian Discourse Analysis. *Aporia*, *5*(1). http://eds.b.ebscohost.com/abstract?site=eds&scope=site&jrnl=19181345&AN=90533256&h=QV5j8EtZT521D3ElHNXEqEAZjmZgqb%2Fsm9zfNiS4iLeqdmPpCZ2dLBvFn8ROPlnZlk230054yUwmCez%2F6Ssr6g%3D%3D&crl=c&resultLocal=ErrCrlNoResults&resultNs=Ehost&crlhashurl=login.aspx%3Fd

Quinn, J. R. (2011). Introductory Essay: Canada' s Own Brand of Truth and Reconciliation? *The International Indigenous Policy Journal*, *2*(3). https://doi.org/10.18584/iipj.2011.2.3.1

Rakshit, R., Shahi, C., Smith, M. A. (Peggy., & Cornwell, A. (2018). Bridging Gaps In Energy Planning for First Nation Communities. *Strategic Planning for Energy and the Environment*, *37*(3), 17–42. https://doi.org/10.1080/10485236.2018.11958658

Rand, J., & Hoen, B. (2017). Thirty years of North American wind energy acceptance research: What have we learned? *Energy Research & Social Science*, *29*, 135–148. https://doi.org/10.1016/J.ERSS.2017.05.019

Rawls, J. (2001). Part I Fundamental ideas. In *Justice as Fairness: A Restatement*. Harvard University Press. https://owl.uwo.ca/access/content/group/f4f1c825-92b1-4628-91a9-1c2f5ad94fa4/Readings/Rawls 2001 Part 1.pdf

Reed, G., Gobby, J., Sinclair, R., Ivey, R., & Matthews, H. D. (2021). Indigenizing Climate Policy in Canada: A Critical Examination of the Pan-Canadian Framework and the ZéN RoadMap. *Frontiers in Sustainable Cities*, *3*, 78. https://doi.org/10.3389/frsc.2021.644675

Regan, P. (2010). *Unsettling the settler within: Indian residential schools, truth telling, and reconciliation in Canada*. ubc Press.

Reyes-García, V., Paneque-Gálvez, J., Bottazzi, P., Luz, A. C., Gueze, M., Macía, M. J., Orta-Martínez, M., & Pacheco, P. (2014). Indigenous land reconfiguration and fragmented institutions: A historical political ecology of Tsimane' lands (Bolivian Amazon). *Journal of Rural Studies*, *34*, 282–291. https://doi.org/10.1016/j.jrurstud.2014.02.007

Richards, J. (2018). Pursuing Reconciliation: The Case for an Off-Reserve Urban Agenda. In *SSRN Electronic Journal*. Elsevier BV. https://doi.org/10.2139/SSRN.3291431

Richmond, C. A. M., & Big-Canoe, K. (2018). The geographies of Indigenous health. In V. A. Crooks, G. J. Andrews, & J. Pearce (Eds.), *Routledge Handbook of Health Geography* (pp. 179–188). Routledge. https://doi.org/10.4324/9781315104584

Rip, A., & Kemp, R. (1998). Technological change. In S. Rayner & E. Malone (Eds.), *Human choice and climate change* (Vol. 2, Issue 2, pp. 327–399). Columbus, Ohio: Battelle. https://ora.ox.ac.uk/objects/uuid:2096a463-2b83-4547-b238-05ca7fbb5c56

Robbins, P. (2012). *Political Ecology: A Critical Introduction* (Vol. 20). John Wiley & Sons.

Roberts, D. (2022, April 6). Federal government approves controversial Bay du Nord oil project | CBC News. *CBC News*. https://www.cbc.ca/news/canada/newfoundland-labrador/bay-du-

nord-approval-1.6410509

Rodman, L. S. (2013). *Spinning wind into power : industry and energy in Gitxaała Nation, British Columbia* [University of British Columbia]. https://doi.org/10.14288/1.0073866

Rogers, T. (2008). *Rosebud Sioux Wind Energy Project The Rosebud Sioux Tribe* . https://www.osti.gov/servlets/purl/951198

Rosenbloom, D. (2018). Framing low-carbon pathways: A discursive analysis of contending storylines surrounding the phase-out of coal-fired power in Ontario. *Environmental Innovation and Societal Transitions*, *27*, 129–145. https://doi.org/10.1016/J.EIST.2017.11.003

Rowlands, I. H. (2007). The development of renewable electricity policy in the province of Ontario: The influence of ideas and timing. *Review of Policy Research*, *24*(3), 185–207. https://doi.org/10.1111/j.1541-1338.2007.00277.x

Royal Commission on Aboriginal Peoples. (1996). *Report of the RCAP, Volume 1 - Looking Forward, Looking Back*. http://data2.archives.ca/e/e448/e011188230-01.pdf

Rymhs, D. (2006). Appropriating Guilt: Reconciliation in an Aboriginal Canadian Context. *Project MUSE*, *32*(1), 105–123. https://doi.org/10.1353/esc.2007.0068

Sabatier, P. A. (1987). Knowledge, Policy-Oriented Learning, and Policy Change. *Knowledge*, *8*(4), 649–692. https://doi.org/10.1177/0164025987008004005

Saidur, R., Islam, M. R., Rahim, N. A., & Solangi, K. H. (2010). A review on global wind energy policy. *Renewable and Sustainable Energy Reviews*, *14*, 1744–1762. https://doi.org/10.1016/j.rser.2010.03.007

Saldaña, J. (2015). *The coding manual for qualitative researchers*. Sage. https://books.google.ca/books?hl=en&lr=&id=jh1iCgAAQBAJ&oi=fnd&pg=PT13&ots=OvytUlZdpP&sig=WoMoJZ-zIMDu69oB-M42dut1KWg#v=onepage&q&f=false

Salter, R., Gonzalez, C. G., & Kronk Warner, E. A. (2018). Energy justice: frameworks for energy

law and policy. In R. Salter, C. G. Gonzalez, & E. A. Kronk Warner (Eds.), *Energy Justice US and International Perspectives*. Edward Elgar Publishing. https://www.elgaronline.com/view/edcoll/9781786431752/9781786431752.00008.xml

Sandelowski, M. (2001). Real qualitative researchers don't count: The use of numbers in qualitative research. *Research in Nursing and Health*, *24*, 230–240. https://doi.org/10.1017/S000748530002229X

Savic, K., & Hoicka, C. E. (2021). *Reconciliation and self-determination through renewable energy? The perspective of economic development corporations of grid-connected First Nations communities* (The Clean Economy Working Paper Series). https://institute.smartprosperity.ca/sites/default/files/WP_reconciliation_jan21.pdf

Schaefer, M., Olabisi, L. S., Arola, K., Poitra, C. M., Matz, E., Seigel, M., Schelly, C., Adesanya, A., & Bessette, D. (2021). Understanding Socio-Technological Systems Change through an Indigenous Community-Based Participatory Framework. *Sustainability*, *13*(4), 2257. https://doi.org/10.3390/SU13042257

Schlosberg, D., & Carruthers, D. (2010). Indigenous Struggles, Environmental Justice, and Community Capabilities. *Global Environmental Politics*, *10*(4), 12–35. https://doi.org/10.1162/GLEP_a_00029

Scott, K. (2020). Reconciliaton and Energy Democracy. *Canadian Journal of Program Evaluation*, *34*(3). https://doi.org/10.3138/cjpe.6844

Sen, A. K. (2008). The Idea of Justice. *Journal of Human Development*, *9*(3), 331–342. https://doi.org/10.1080/14649880802236540

Sen, A. K. (2009). Lives, Freedoms and Capabilities. In *The idea of justice*. Cambridge. https://owl.uwo.ca/access/content/group/f4f1c825-92b1-4628-91a9-1c2f5ad94fa4/Readings/Sen 2009 Ch 11.pdf

Shepherd, D., McBride, D., Welch, D., Dirks, K. N., & Hill, E. M. (2011). Evaluating the impact of wind turbine noise on health-related quality of life. *Noise and Health*, *13*(54), 333.

Sherren, K., Parkins, J. R., Owen, T., & Terashima, M. (2019). Does noticing energy infrastructure influence public support for energy development? Evidence from a national survey in Canada. *Energy Research & Social Science*, *51*, 176–186. https://doi.org/10.1016/j.erss.2019.01.014

Shewell, H. (2002). 'Bitterness behind Every Smiling Face': Community Development and Canada's First Nations, 1954-1968. *Canadian Historical Review*, *83*(1), 58–84. https://doi.org/10.3138/chr.83.1.58

Simcock, N. (2016). Procedural justice and the implementation of community wind energy projects: A case study from South Yorkshire, UK. *Land Use Policy*, *59*. https://doi.org/10.1016/j.landusepol.2016.08.034

Simpson, L. B. (2011). *Dancing on our turtle's back: Stories of Nishnaabeg re-creation, resurgence and a new emergence*. Arbeiter Ring Pub.

Slovic, P., Finucane, M. L., Peters, E., & MacGregor, D. G. (2004). Risk as Analysis and Risk as Feelings: Some Thoughts about Affect, Reason, Risk, and Rationality. *Risk Analysis*, *24*(2), 311–322. https://doi.org/10.1111/j.0272-4332.2004.00433.x

Smith, A. A., & Scott, D. N. (2021). 'Energy Without Injustice'? Indigenous Ownership of Renewable Energy Generation. In S. A. Atapattu, C. G. Gonzalez, & S. L. Seck (Eds.), *Environmental Justice, Sustainable Development and the Social Pillar / The Cambridge Handbook on Environmental Justice and Sustainable Development* (pp. 383–397). Cambridge University Press. https://papers.ssrn.com/abstract=3251922

Snow, K. C., Hays, D. G., Caliwagan, G., Ford, D. J., Mariotti, D., Mwendwa, J. M., & Scott, W. E. (2016). Guiding principles for indigenous research practices. *Action Research*, *14*(4). https://doi.org/10.1177/1476750315622542

Songsore, E., Buzzelli, M., & Baxter, J. (2017). Understanding developer perspectives and experiences of wind energy development in Ontario. *Environment and Planning C: Politics and Space*, *0*(0), 239965441772193. https://doi.org/10.1177/2399654417721931

Sovacool, B. K. (2014). What are we doing here? Analyzing fifteen years of energy scholarship

and proposing a social science research agenda. *Energy Research & Social Science*, *1*, 1–29. https://doi.org/10.1016/j.erss.2014.02.003

Sovacool, B. K. (2016). How long will it take? Conceptualizing the temporal dynamics of energy transitions. *Energy Research and Social Science*, *13*, 202–215. https://doi.org/10.1016/j.erss.2015.12.020

Sovacool, B. K., Axsen, J., Delina, L. L., Boudet, H. S., Rai, V., Sidortsov, R., Churchill, S. A., Jenkins, K. E. H., & Galvin, R. (2022). Towards codes of practice for navigating the academic peer review process. *Energy Research & Social Science*, *89*, 102675. https://doi.org/10.1016/J.ERSS.2022.102675

Stanton, K. (2011). Canada' s Truth and Reconciliation Commission: Settling the Past? Canada' s Truth and Reconciliation Commission: Settling the Past? *The International Indigenous Policy Journal*, *2*(3). https://doi.org/10.18584/iipj.2011.2.3.2

Stanton, K. (2017). Reconciling Reconciliation: Differing Conceptions of the Supreme Court of Canada and the Canadian Truth and Reconciliation Commission. *Journal of Law and Social Policy*, *26*. file:///C:/Users/cmangben/Downloads/KimStantonReconcilingReco.pdf

StatCan. (2016a). *Aboriginal Peoples Highlight Tables*. StatCan. http://www12.statcan.gc.ca/census-recensement/2016/dp-pd/hlt-fst/abo-aut/Table.cfm?Lang=Eng&S=99&O=A&RPP=25

StatCan. (2016b). *Aboriginal peoples in Canada: Key results from the 2016 Census*. http://www.statcan.gc.ca/daily-quotidien/171025/dq171025a-eng.pdf

Statistics Canada. (2016). *Aboriginal Population Profile, 2016 Census - M'Chigeeng First Nation [First Nation/Indian band or Tribal Council area], Ontario*. https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/abpopprof/details/page.cfm?Lang=E&Geo1=AB&Code1=2016C1005217&Data=Count&SearchText=M%27Chigeeng First Nation&SearchType=Begins&B1=All&GeoLevel=PR&GeoCode=2016C1005217&SEX_ID=1&AGE_ID=1&RESGEO_ID=1

Stea, D., & Wisner, B. (1984). The Fourth World. *Antipode*, *16*(2), 3–12. https://doi.org/10.1111/j.1467-8330.1984.tb00657.x

Stefanelli, R. D., Walker, C., Kornelsen, D., Lewis, D., Martin, D. H., Masuda, J., Richmond, C. A. M., Root, E., Tait Neufeld, H., & Castleden, H. (2019). Renewable energy and energy autonomy: how Indigenous peoples in Canada are shaping an energy future. *Environmental Reviews*, *27*(1), 95–105. https://doi.org/10.1139/er-2018-0024

Storrie, B. (2015). "The Mighty Life-Creating and Transforming Power" of Carnival: Why the Canadian Truth and Reconciliation Commission Does Not Seem to Have It, but Indigenous Resurgence Does. *International Journal of Transitional Justice*, *9*, 469–485. https://doi.org/10.1093/ijtj/ijv013

Sullivan, D., & Tifft, L. (2007). Introduction: The healing dimension of restorative justice. In D. Sullivan & L. Tifft (Eds.), *Handbook of restorative justice: A global perspective*. Routledge. https://doi.org/https://doi.org/10.4324/9780203346822

Taiaiake Alfred, & Corntassel, J. (2005). Being Indigenous: Resurgences against contemproary colonialism. *Government and Opposition*, *40*(4), 597.

The Canadian Press. (2019, October 5). *Greens promise to end colonial oppression and phase out the Indian Act*. https://www.greenparty.ca/en/media-release/2019-10-05/greens-promise-end-colonial-oppression-and-phase-out-indian-act

The National Inquiry into Missing and Murdered Indigenous Women and Girls. (2019a). *A Legal Analysis of Genocide: Supplementary Report*. https://www.mmiwg-ffada.ca/wp-content/uploads/2019/06/Supplementary-Report_Genocide.pdf

The National Inquiry into Missing and Murdered Indigenous Women and Girls. (2019b). *Reclaiming Power and Place: The Final Report of the National Inquiry into Missing and Murdered Indigenous Women and Girls*. https://www.mmiwg-ffada.ca/final-report/

Thone, F. (1935). Nature Ramblings: We Fight for Grass. *The Science News-Letter*, *27*(717), 14. https://doi-org.proxy1.lib.uwo.ca/10.2307/3911681

Tobias, J. K., & Richmond, C. A. M. (2014). “That land means everything to us as Anishinaabe….”: Environmental dispossession and resilience on the North Shore of Lake Superior. *Health & Place*, *29*, 26–33.

Tobias, J. K., Richmond, C. A. M., & Luginaah, I. (2013). Community-Based Participatory Research (CBPR) with Indigenous Communities: Producing Respectful and Reciprocal Research. *Journal of Empirical Research on Human Research Ethics: An International Journal*, *8*(2), 129–140. https://doi.org/10.1525/jer.2013.8.2.129

Tonkiss, F. (2004). Analysing text and speech: content and discourse analysis. *Researching Society and Culture*, *2*, 367–382.

Truth and Reconciliation Commission of Canada. (2015a). *Canada’s Residential Schools: Reconciliation, The Final Report of the Truth and Reconciliation Commission of Canada, Volume 6*. http://www.myrobust.com/websites/trcinstitution/File/Reports/Volume_6_Reconciliation_English_Web.pdf

Truth and Reconciliation Commission of Canada. (2015b). *Honouring the Truth, Reconciling for the Future, Summary of the Final Report of the Truth and Reconciliation Commission of Canada*. http://www.trc.ca/websites/trcinstitution/File/2015/Honouring_the_Truth_Reconciling_for_the_Future_July_23_2015.pdf

Truth and Reconciliation Commission of Canada. (2015c). *Truth and Reconciliation Commission of Canada: Calls to Action*.

Tuhiwai-Smith, L. (1999). *Decolonizing methodologies: Research and Indigenous Peoples.* Zed Books: London. https://nycstandswithstandingrock.files.wordpress.com/2016/10/linda-tuhiwai-smith-decolonizing-methodologies-research-and-indigenous-peoples.pdf

Tyfield, D. (2014). Putting the Power in ‘Socio-Technical Regimes’ – E-Mobility Transition in China as Political Process. *Mobilities*, *9*(4), 585–603. https://doi.org/10.1080/17450101.2014.961262

United Nations Department of Economic and Social Affairs. (2016). *The State of the World's Indigenous Peoples*. http://www.un.org/esa/socdev/unpfii/documents/2016/Docs-updates/The-State-of-The-Worlds-Indigenous-Peoples-2-WEB.pdf

University of British Columbia. (n.d.). *First Nations and Indigenous Studies*. Retrieved July 29, 2022, from https://guides.library.ubc.ca/c.php?g=307187&p=2050818

University of Ottawa. (2015). *Canadians' Views on Canada's Energy Future*. http://www.nrcan.gc.ca/sites/www.nrcan.gc.ca/files/energy/energy-resources/Positive_Energy-Survey_Research_on_Canadas_Energy_Future_Oct_2015.pdf

Upham, P., Oltra, C., & Boso, À. (2015). Towards a cross-paradigmatic framework of the social acceptance of energy systems. *Energy Research and Social Science*, *8*, 100–112. https://doi.org/10.1016/J.ERSS.2015.05.003

Velasco-Herrejon, P., & Bauwens, T. (2020). Energy justice from the bottom up: A capability approach to community acceptance of wind energy in Mexico. *Energy Research & Social Science*, *70*, 101711. https://doi.org/10.1016/J.ERSS.2020.101711

VeneKlasen, L., Miller, V., Budlender, D., & Clark, C. (2007). *A new weave of power, people & politics: the action guide for advocacy and citizen participation* (D. Budlender & C. Clark (eds.); 2nd ed.). Bourton-on-Dunsmore, Warwickshire, U.K: Practical Action Pub.

Veracini, L. (2011). Introducing settler colonial studies. *Settler Colonial Studies*, *1*(1), 1–12. https://doi.org/10.1080/2201473X.2011.10648799

Veracini, L. (2014). Understanding Colonialism and Settler Colonialism as Distinct Formations. *Interventions International Journal of Postcolonial Stud*, *16*(5), 615–633. https://doi.org/10.1080/1369801X.2013.858983

Walker, C., & Baxter, J. (2017a). "It's easy to throw rocks at a corporation": wind energy development and distributive justice in Canada. *Journal of Environmental Policy & Planning*, *19*(6), 754–768. https://doi.org/10.1080/1523908X.2016.1267614

Walker, C., & Baxter, J. (2017b). Procedural justice in Canadian wind energy development: A

comparison of community-based and technocratic siting processes. *Energy Research & Social Science*, *29*, 160–169. https://doi.org/10.1016/J.ERSS.2017.05.016

Walker, C., Baxter, J., & Ouellette, D. (2014). Beyond rhetoric to understanding determinants of wind turbine support and conflict in two Ontario, Canada communities. *Environment and Planning A: Economy and Space*, *46*(3), 730–745. https://doi.org/10.1068/a130004p

Walker, C., Doucette, M. B., Rotz, S., Lewis, D., Neufeld, H. T., & Castleden, H. (2021). Non-Indigenous partner perspectives on Indigenous peoples' involvement in renewable energy: exploring reconciliation as relationships of accountability or status quo innocence? *Qualitative Research in Organizations and Management: An International Journal*, *16*(3/4), 636–657. https://doi.org/10.1108/QROM-04-2020-1916

Walker, C., Stephenson, L., & Baxter, J. (2018). "His main platform is 'stop the turbines' ": Political discourse, partisanship and local responses to wind energy in Canada. *Energy Policy*, *123*, 670–681. https://doi.org/10.1016/J.ENPOL.2018.08.046

Walker, G., & Devine-Wright, P. (2008). Community renewable energy: What should it mean? *Energy Policy*, *36*(2), 497–500. https://doi.org/10.1016/j.enpol.2007.10.019

Walker, G., Hunter, S., Devine-Wright, P., Evans, B., & Fay, H. (2007). Harnessing Community Energies: Explaining and Evaluating Community-Based Localism in Renewable Energy Policy in the UK. *Global Environmental Politics*, *7*(2). https://doi.org/10.1162/glep.2007.7.2.64

Wallerstein, N. B., & Duran, B. (2006). Using Community-Based Participatory Research to Address Health Disparities. *Health Promotion Practice*, *7*(3), 312–323. https://doi.org/10.1177/1524839906289376

Warren, C. R., & Mcfadyen, M. (2010). Does community ownership affect public attitudes to wind energy? A case study from south-west Scotland. *Land Use Policy*, *27*, 204–213. https://doi.org/10.1016/j.landusepol.2008.12.010

Watts, M., & Peluso, N. L. (2001). Violent environments. In *Nancy Lee Peluso and Michael Watts. Ithaca: Cornell*.

https://books.google.ca/books?hl=en&lr=&id=PUmeBjGfN74C&oi=fnd&pg=PA189&dq=Michael+Watts+2001&ots=aeO6PnuWhM&sig=8k6uuJITE-rgf2xSE3XMas44DvE#v=onepage&q=Michael Watts 2001&f=false

Waziyatawin. (2012). The paradox of Indigenous resurgence at the end of empire. *Decolonization: Indigeneity, Education & Society*, *1*(1), 68–85. https://jps.library.utoronto.ca/index.php/des/article/view/18629/15553

Waziyatawin, A. W. (2013). Indigenous knowledge, anticolonialism and empowerment. In M. Smith (Ed.), *Transforming the Academy: Essays on Indigenous Education, Knowledges and Relations*. https://s3.amazonaws.com/academia.edu.documents/37878804/MSmith_IndigenousEd-IndigenizingAcademy_3Jun2015_FIN.pdf?AWSAccessKeyId=AKIAIWOWYYGZ2Y53UL3A&Expires=1552068312&Signature=0nUW5zqdpG3%2FTfmL0kzNgeKMEbE%3D&response-content-disposition=inline%3B file

White, J. P., Murphy, L., & Spence, N. (2012). Water and Indigenous Peoples: Canada' s Paradox. *The International Indigenous Policy Journal*, *3*(3). https://doi.org/10.18584/iipj.2012.3.3.3

Whitehead, J. C. (1991). Environmental Interest Group Behavior and Self-Selection Bias in Contingent Valuation Mail Surveys. *Growth and Change*, *22*(1), 10–20.

Wickham, G., & Kendall, G. (2007). Forum: Qualitative Social Research. *Forum Qualitative Sozialforschung / Forum: Qualitative Social Research*, *8*(2). http://www.qualitative-research.net/index.php/fqs/article/view/252/556

Wilmer, F. (1993). *The indigenous voice in world politics: since time immemorial* (Vol. 7). Sage Publications. http://vr2pk9sx9w.search.serialssolutions.com/?ctx_ver=Z39.88-2004&ctx_enc=info%3Aofi%2Fenc%3AUTF-8&rfr_id=info%3Asid%2Fsummon.serialssolutions.com&rft_val_fmt=info%3Aofi%2Ffmt%3Akev%3Amtx%3Abook&rft.genre=book&rft.title=The+indigenous+voice+in+world+poli

Wilson, G. N., & Selle, P. (2019). *Indigenous Self-Determination in Northern Canada and*

Norway (No. 69; IRPP Study). https://irpp.org/wp-content/uploads/2019/02/Indigenous-Self-Determination-in-Northern-Canada-and-Norway.pdf

Wilson, J. Q. (1995). *Political organizations*. Princeton University Press.

Wilson, K., & Peters, E. J. (2005). "You Can Make a Place for it": Remapping Urban First Nations Spaces of Identity. *Environment and Planning D: Society and Space*, *23*(3), 395–413. https://doi.org/10.1068/d390

Wilson, S. M. (2021). *Community Attitudes and Wind Energy Development Types: A Comparative Study in Ontario and Nova Scotia* [University of western Ontario]. https://ir.lib.uwo.ca/etd/8155/

Winner, L. (1980). Do artifacts have politics? *Daedalus*, *109*(1), 121–136. https://www.jstor.org/stable/pdf/20024652.pdf?refreqid=excelsior%3Adfc3f8ec022d7ff07805db883710a96f

Winship, C., & Mare, R. D. (1992). Models for sample selection bias. *Annu. Rev. Sociol*, *18*, 327–350.

Wodak, R., & Meyer, M. (2009). Critical Discourse Analysis: History, Agenda, Theory, and Methodology. In R. Wodak & M. Meyer (Eds.), *Methods of critical discourse analysiss for critical discourse analysis. Sage.* SAGE. https://www.researchgate.net/profile/Ruth_Wodak/publication/265678850_Critical_Discourse_Analysis_History_Agenda_Theory_and_Methodology_1/links/5459fa760cf26d5090ad3938/Critical-Discourse-Analysis-History-Agenda-Theory-and-Methodology-1.pdf

Wolsink, M. (1987). Wind power for the electricity supply of houses. *The Netherlands Journal of Housing and Environmental Research*, *2*(3), 195–214. https://doi.org/10.1007/BF02497872

Wolsink, M. (2000). Wind power and the NIMBY-myth: Institutional capacity and the limited significance of public support. *Renewable Energy*, *21*(1), 49–64. https://doi.org/10.1016/S0960-1481(99)00130-5

Wolsink, M. (2007). Wind power implementation: The nature of public attitudes: Equity and

fairness instead of “backyard motives.” In *Renewable and Sustainable Energy Reviews* (Vol. 11, Issue 6, pp. 1188–1207). https://doi.org/10.1016/j.rser.2005.10.005

Wolsink, M. (2013). Wind Power : Basic Challenge Concerning Social Acceptance. In Kaltschmitt M., T. N.J., B. L.Y., S. L., & V. L.A. (Eds.), *Renewable Energy Systems* (pp. 1785–1821). Springer New York. https://doi.org/10.1007/978-1-4614-5820-3_88

Wrathall, D., Wilson, K., Rosenberg, M. W., Snyder, M., & Barberstock, S. (2020). Long-term trends in health status and determinants of health among the off-reserve Indigenous population in Canada, 1991–2012. *The Canadian Geographer / Le Géographe Canadien*, *64*(2), 199–214. https://doi.org/10.1111/CAG.12592

Wright, L., & White, J. P. (2012). Developing Oil and Gas Resources On or Near Indigenous Lands in Canada: An Overview of Laws, Treaties, Regulations and Agreements. *The International Indigenous Policy Journal*, *3*(2). https://doi.org/10.18584/iipj.2012.3.2.5

Wüstenhagen, R., Wolsink, M., & Burer, M. J. (2007). Social acceptance of renewable energy innovation: An introduction to the concept. *Energy Policy*, *35*, 2683–2691. https://doi.org/10.1016/j.enpol.2006.12.001

Wüstenhagen, R., Wolsink, M., & Bürer, M. J. (2007). Social acceptance of renewable energy innovation: An introduction to the concept. *Energy Policy*. https://doi.org/10.1016/j.enpol.2006.12.001

Zanotti, L., & Palomino-Schalscha, M. (2016). Taking different ways of knowing seriously: cross-cultural work as translations and multiplicity. *Sustainability Science*, *11*(1), 139–152. https://doi.org/10.1007/s11625-015-0312-x

Zárate-Toledo, E., Patiño, R., & Fraga, J. (2019). Justice, social exclusion and indigenous opposition: A case study of wind energy development on the Isthmus of Tehuantepec, Mexico. *Energy Research and Social Science*, *54*, 1–11. https://doi.org/10.1016/j.erss.2019.03.004

Zimmerman, M. G., & Reames, T. G. (2021). Where the wind blows: Exploring barriers and opportunities to renewable energy development on United States tribal lands. *Energy*

Research & Social Science, *72*, 101874. https://doi.org/10.1016/J.ERSS.2020.101874

Appendices

A. Interview guide
B. Member checking document (summary of interview findings for participants)
C. Survey instrument
D. Report to Chief and Council
E. Curriculum Vitae
F. Permission to use articles in thesis

Appendix A. Interview guide

Preliminaries:

- Thanks/explain purpose
  - Study about stakeholder concerns in Ontario, Nova Scotia, and Ireland.
  - The study will explore ways of improving the relationship between wind energy projects and local communities and to understand what makes a successful community-based wind energy development.
  - The researchers in M'Chigeeng seek to better understand what can influence how people perceive wind energy projects.
  - The researchers intend to present the findings with the whole community through an end-of-study event and publish them in academic journals.
  - The project is funded by the Social Sciences and Humanities Research Council of Canada.
- Consent form
- Time available for the interview
- Permission to record

Warm ups:

- How long lived at this location?
- Family links to the area?
- How many people live at this address?
- Type of employment in the family?

Topics

1. **Overview of the local wind energy project?**
   - How does the wind project fit with the local area?
   - Why do you think this?
     - Main positive aspects of the project
     - Main negative aspects of the project
   - Is this a common view in the local community?
   - Who in the community holds a different view from you? Why do you think they do?
   - Do you think you would hold a different view of the project if it was owned by a large multinational company? First Nation investors? Non First Nation investors?

2. **Development of the local wind energy project**

   Please tell me about the process that led the project being located in your community.
   - When did you first hear about the project? How did you get to hear about it?
   - Did you have an opportunity to give comments on:
     - The project and turbine size?
     - Its location?
     - The scope and types of community benefits?

- Would you have liked any of these things changed?
- Is there anything about the process you would have liked to have been done differently?
- Are you aware of any standards/restrictions in place? Who ensures these are met ?
- When the information about the project was communicated to you, was it easy to access and clear?

3. Ownership and Benefits

- Who do you think gains most from the project? (developers/community/neighbours/landowners/nation)
- Who bears the most costs of the project? (developers/community/neighbours/landowners/nation)
- What do you think are the main benefits of the project for the local area?
- How do you think these could be improved?
- Who should get what and how?
- Who do you feel should be responsible for improving the distribution and scale of benefits?
- How do feel about host communities being encouraged to act collectively as a community (or groups within the community) rather than as individuals?
    - E.g., in an individual scheme, landowners who could lease their land for investors to install wind turbines
- What
    - E.g., Community leaders
    - Legal advice
    - Information about other sites being considered
    - Information about what the neighbours receive
    - Information about what the neighbours think about turbines

4. Community and other Conflict

- Did the wind project give rise to any conflict within the community?
    - If so, how was this expressed?
    - If so what do you think were the reasons for the conflict?
    - If so, has this had any wider consequences for the local community?
    - If so, was the conflict resolved? How?
    - If no conflict arose, why do you think the community remained united on this project when conflict often arises elsewhere?
- Do you think people see the project in the long term rather than the short term?
- To what extent has the project had any wider positive impacts on relationships within the community?
    - Impact on house prices
    - Employment brought to the general community area?
    - Impacts on flora/fauna/landscape/noise
- Any positive impacts in relationships outside the community?

- On relationships with other First Nations?
- On relationships with the federal government? with the provincial government? with non Indigenous Peoples in Canada?
- Do you foresee/perceive any impacts of such projects on the reconciliation between Indigenous and non-Indigenous people?

5. Community Agency (Weak Community Model)

- ~~Do you think your community could have developed a project at this location?~~
- ~~Why do you think this did not happen?~~
- Would you be interested in getting involved in a similar community owned renewable energy project in the future?
- How would you prefer to be involved?
  - Interaction with developers
  - Interaction with other residents

6. Community Agency (Strong Community Model)

- Do you remember how the community got engaged behind the wind energy project in 2001? How would you describe this engagement process?
- Why do you think this happened here and does not in other places?
- ~~Would you be interested in getting involved in a similar community owned project in the future?~~

7. Wind farm Policy

- What do you think the provincial/federal government could do to improve how wind farms are developed on Manitoulin Island?
- What can others (Indigenous and non-Indigenous communities) learn from what has happened in M'Chigeeng?

Closing questions

- Anything you'd like to add/things you think we've missed?
- Who else would you recommend we speak to – w.r.t. the local wind energy project? Even someone who thinks differently
- Thanks for time
- Turn off recorder
- Explain procedure for transcripts (member checking at a later stage)

Appendix B. Member checking document

WIND ENERGY STUDY PARTNERSHIP

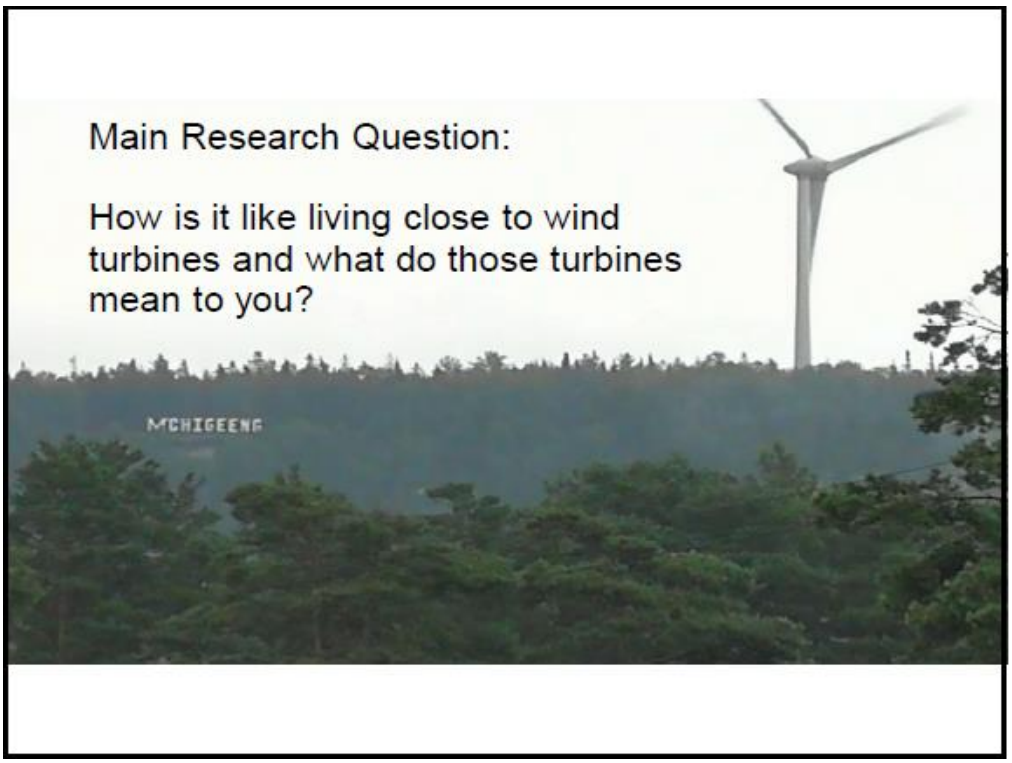
M'CHIGEENG FIRST NATIONS AND WESTERN UNIVERSITY

WIND ENERGY STUDY PARTNERSHIP

M'CHIGEENG FIRST NATIONS AND WESTERN UNIVERSITY

The purpose of this document is to provide preliminary findings on the wind energy study that you kindly participated in. At the end of the document, we ask for your feedback about whether our interpretation of the interviews reflect your perceptions on the wind turbines.

We are very grateful for your participation. **Chi miigwech**



BACKGROUND

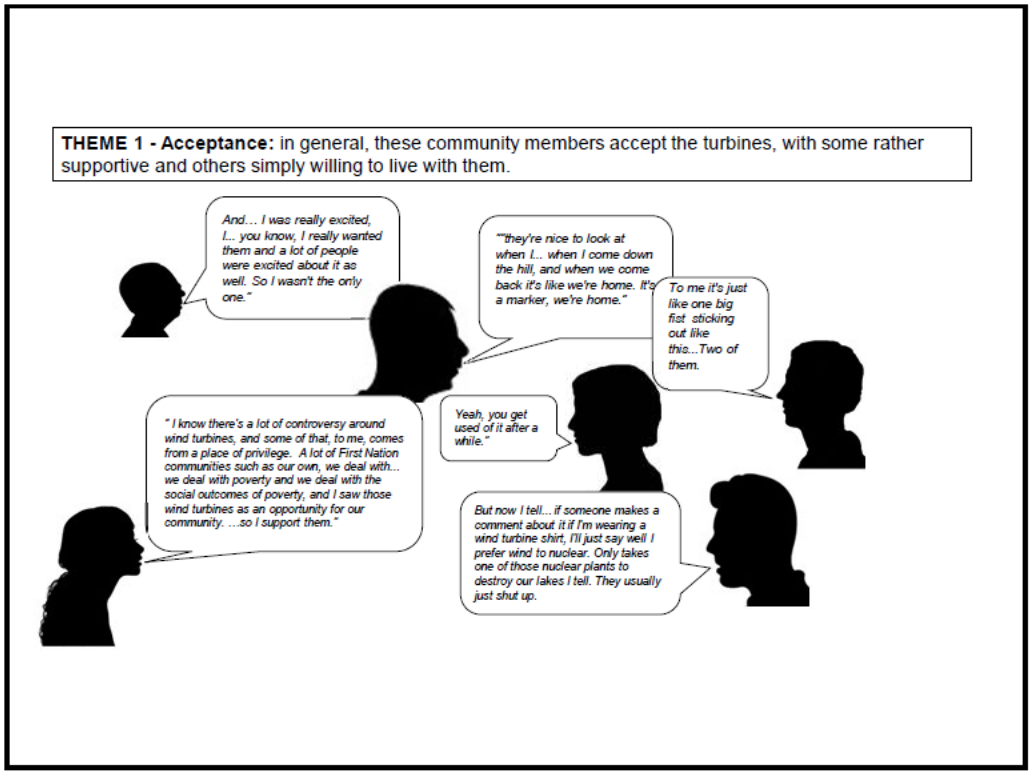
Participation

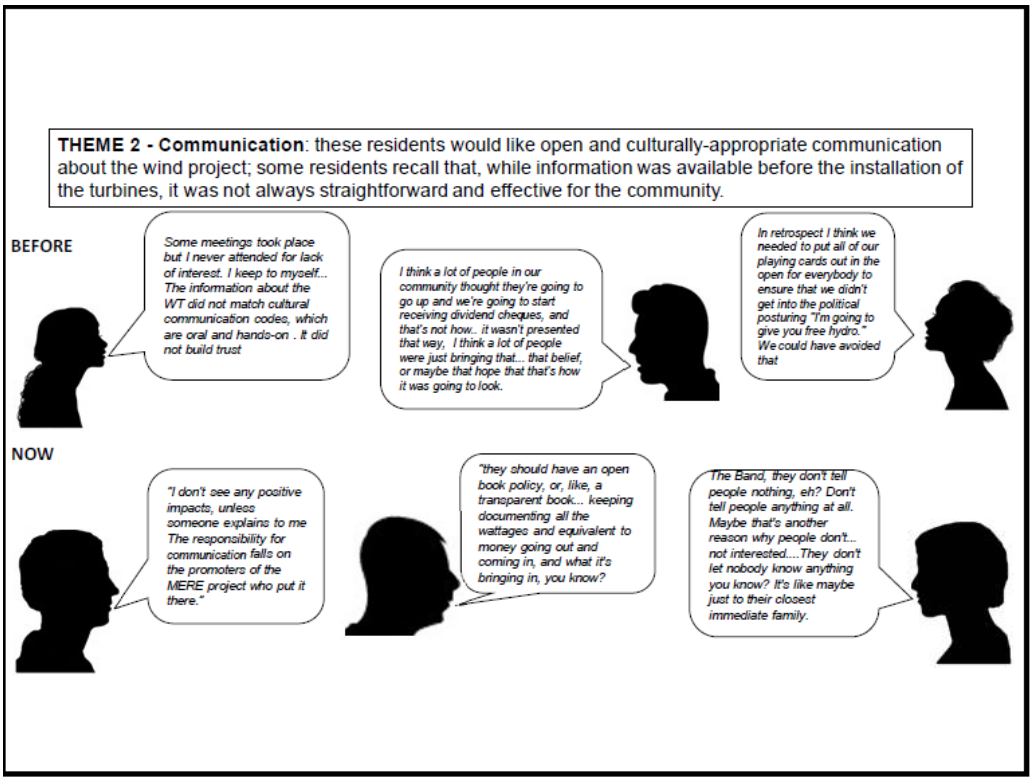
32 interviews were conducted between August and October 2019 with M'Chigeeng residents, including

- Band members: 2 couples, 15 female, and 11 male participants; and
- Residents non-members: 1 female and 3 male participants

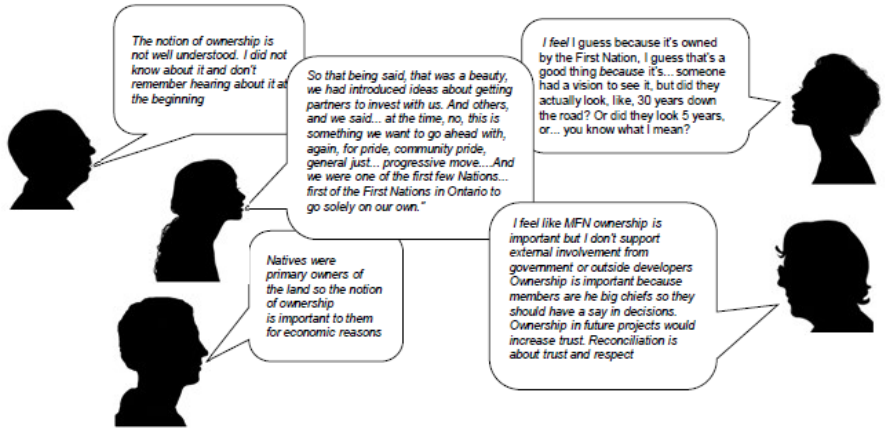
Summary of findings

- The people Carelle spoke with did not seem very **opposed** to the wind turbines. While there are several themes in the interviews the focus here is on **four core themes** from the interview conversations:
  1. In general, these community members **accept** the turbines, with some rather supportive and others simply willing to live with them.
  2. A core issue is project-related **communication** both before the installation of the turbines and since they started operating.
  3. The **ownership** of the turbines is an element that generally binds the community around the turbines, it is a reason for pride.
  4. Turbine ownership for M'Chigeeng First Nation must be understood in the context of the **relationship** between Indigenous nations and settler institutions, legacy of **colonization**.

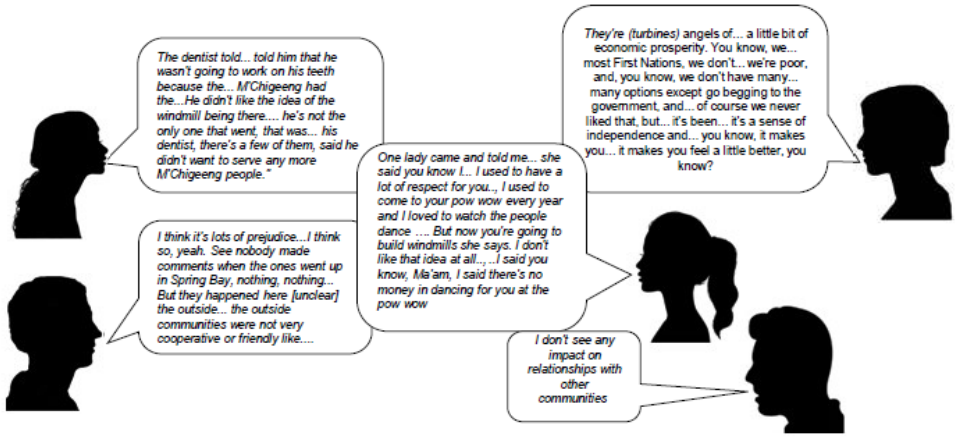

THEME 1 - Acceptance: in general, these community members accept the turbines, with some rather supportive and others simply willing to live with them.
And… I was really excited, I… you know, I really wanted them and a lot of people were excited about it as well. So I wasn't the only one."
""they're nice to look at when I… when I come down the hill, and when we come back it's like we're home. It's a marker, we're home."
To me it's just like one big fist sticking out like this…Two of them.
" I know there's a lot of controversy around wind turbines, and some of that, to me, comes from a place of privilege. A lot of First Nation communities such as our own, we deal with… we deal with poverty and we deal with the social outcomes of poverty, and I saw those wind turbines as an opportunity for our community. …so I support them."
Yeah, you get used of it after a while."
But now I tell… if someone makes a comment about it if I'm wearing a wind turbine shirt, I'll just say well I prefer wind to nuclear. Only takes one of those nuclear plants to destroy our lakes I tell. They usually just shut up.


THEME 2 - Communication: these residents would like open and culturally-appropriate communication about the wind project; some residents recall that, while information was available before the installation of the turbines, it was not always straightforward and effective for the community.
BEFORE
Some meetings took place but I never attended for lack of interest. I keep to myself… The information about the WT did not match cultural communication codes, which are oral and hands-on . It did not build trust
I think a lot of people in our community thought they're going to go up and we're going to start receiving dividend cheques, and that's not how.. it wasn't presented that way, I think a lot of people were just bringing that… that belief, or maybe that hope that that's how it was going to look.
In retrospect I think we needed to put all of our playing cards out in the open for everybody to ensure that we didn't get into the political posturing "I'm going to give you free hydro." We could have avoided that
NOW
"I don't see any positive impacts, unless someone explains to me The responsibility for communication falls on the promoters of the MERE project who put it there."
"they should have an open book policy, or, like, a transparent book… keeping documenting all the wattages and equivalent to money going out and coming in, and what it's bringing in, you know?
The Band, they don't tell people nothing, eh? Don't tell people anything at all. Maybe that's another reason why people don't… not interested….They don't let nobody know anything you know? It's like maybe just to their closest immediate family.

THEME 3 – Pride of Ownership: The ownership of the turbines is an element that generally binds the community around the turbines, it is a reason for pride.



THEME 4 – Relationships with non-Indigenous people: Economic development for M'Chigeeng First Nation must be understood considering the colonial legacy, with First Nations, deprived from their socio-economic independence, striving to assert their autonomy.



Please do one of the following by August 11th, 2020:

- Complete this form, detach and return using the included stamped envelope

or

- Complete this form, take a picture, and email it to cmangben@uwo.ca

Miigwech

These findings generally reflect my perceptions on the wind turbines in the community (mark if applicable). .....

These findings do not reflect my perceptions on the wind turbines in the community (mark if applicable). .....

Is there anything you would like to see added? (please use the space below, use next page as necessary):

.....

Additional comments

You may write here

....

Appendix C. Survey instrument

Letter of information and Consent – MOCWE Wind Survey 2021

Dear Member of M'Chigeeng First Nation,

Dr. Jamie Baxter and his research team from Western University's Department of Geography and the Environment invite you to participate in a survey about your experience with the MERE wind development project and your opinions of it.

Title of the project: Community-based wind energy development: International survey of procedural fairness and social acceptance.

What is being studied and why?

The study will explore ways of improving the relationship between wind energy projects and local communities and to understand what makes a wind project successful. The research is examining case studies in Canada and the Republic of Ireland and will compare the experience of communities in each context to better understand the factors that can influence how people perceive wind projects.

As Canada continues to transition away from fossil fuels and toward renewable energy sources, it is imperative that we keep track of how communities are affected. The goal of studies such as this is to give residents an additional avenue through which to voice their opinions about wind energy, and more specifically, about their local wind project and its developer(s).

The purpose of this study is to develop a better understanding of how people feel about wind projects of different types, including:

- Community-based projects, where nearby residents have an opportunity to invest and receive a return on investment;
- Developer-led projects, where the primary stakeholders such as investors and developers may be based outside Canada.

Study procedures and length of study?

Complete survey: you are invited to complete a Wind Energy 2020 survey. If you received a paper-mail invitation, and agree to participate, please follow the instructions to complete the survey and send it back to the researchers in the attached addressed and stamped envelope. If you prefer to complete it online, please type the survey link below into your browser to access the survey. This survey will take approximately 20 minutes to complete.

Do I have to participate in this study?

Your choice to participate and complete the survey is **completely voluntary**. You do not have to participate. You can refuse to answer any questions and can choose to leave the survey at any time. However, as the survey gives us critical information about community perspectives on wind energy, we would really appreciate your participation, as the results will ultimately help with the development of future renewable energy developments.

What are the possible benefits of participating?

Our research is helping us to develop a better understanding of how people feel about wind energy in their communities. It is anticipated that the discussion and findings resulting from this research may contribute to a better understanding of how wind farms should be developed, whether the local community should be given opportunities to own or manage wind projects, and to advise on where best to locate them.

What are the possible disadvantages of participating?

There is little risk to you if you choose to participate in this study, but there is a slight chance that you may be uncomfortable sharing details of your household's economic status and whether you are benefiting financially from the local wind project. The risk for discomfort is being minimized as follows: Participants will not be personally identified or identifiable in any documents or presentations related to the study. All the information collected in this study is kept strictly confidential and your name will not appear on any materials or data files.

How will your information be kept confidential?

In addition to confidentiality procedures discussed in the previous section, survey data will ONLY be viewed by members of the research team and will be maintained on a password-protected computer in a secure facility at Western University. Representatives of The University of Western Ontario Non-Medical Research Ethics Board may require access to your study-related records to monitor the conduct of the research. You do not waive any legal rights by consenting to this study.

How will my data be stored?

Information will be stored in two ways. The paper surveys will be accumulated by a mailing and courier service called Key Contact who will send them to the Social Science Center at Western University, where parcels of completed surveys will be collected by the investigators. The anonymous data will be entered into SPSS, a secure data analysis software used by Western University, to be analysed by investigators. The paper version of the surveys will then be destroyed. If you choose to complete the survey online, your survey responses will be collected anonymously through a secure online platform called Qualtrics. Qualtrics uses encryption technology and restricted access authorizations to protect all data collected. In addition, Western's Qualtrics server is in Ireland, where privacy standards are maintained under the European Union safe harbour framework. The data will then be exported on Western University's server to be analysed by the investigators, and subsequently deleted. Anonymized digital data from both paper and online surveys will be stored within SPSS for 10 years, for potential future analysis.

What will happen to the results of the study?

The research outputs are expected to be included in a wider study of community attitudes to wind energy projects and we will compare what we discover about the wind farm in your area with that in another part of Canada and in Ireland. The results will form the basis of a report to MChigeeng Chief and Council, the research funders and will appear in a doctoral thesis and in academic papers. You may withdraw from this study at any point prior to mailing your completed survey or beginning the online survey. Due to the anonymous nature of the data, it is impossible for the investigators to remove your responses from our dataset once your completed survey has been received. For the

online version, your anonymized data will be saved as soon as it is entered. You can ask further questions about this by emailing the Principal Investigator, Dr. Jamie Baxter, at [email address redacted].

Will I be compensated for participating in this study?

Participants from M'Chigeeng First Nation will have the option to be entered into a draw, and win gift cards of their choice (Amazon, PC, Canadian Tire, or Walmart). There will be two 200 dollars cards and four 100 dollars cards. The contact information you provide on the separate sheet will be stored separately from your questionnaire. The two will not be linked in any way after they are received. After winners for the draw have been determined, the paper version of those entries will be destroyed and the Qualtrics entries deleted.

Who do I contact if I have any other questions?

Should you have any questions or concerns about participating in this project, you can contact Dr. Jamie Baxter by email at [email address redacted] or by phone at [phone number redacted].

If you have any further questions regarding your rights as a study participant, please contact the Office of Human Research Ethics at [email address and phone number redacted].

By participating in this survey, you are providing your consent.

Meaning of Community Wind Energy Survey 2021
M'Chigeeng First Nation

Please review the Letter of Information included in this package before completing the survey. Your responses are **voluntary** and **confidential - your answers will never be linked to your name or address.** If you need more space for your answers, please use the comment section at the end of the survey. Thank you for your time.

If you have any questions, please email Jamie Baxter at [email address and phone number redacted].

Return the completed survey by mail in the enclosed postage-paid envelope. You may also drop it off at the Band Office that will forward it to Dr. Jamie Baxter's team.

This survey should take about 20 minutes to complete. Some of the questions are about your local wind project, while others are more generic - about wind energy development. We are asking your opinion, there are no right and wrong answers.

We are asking closed questions, but you will have the opportunity to share your thoughts in a comment area at the end of the document.

Section 1: Basic information

These questions are meant to establish your relationship to your local wind energy development.

1. Do you currently live:
   a. On-reserve
   b. Off-reserve

2. I feel a strong affinity (or connection) with M'Chigeeng

Strongly disagree Disagree Neutral Agree Strongly Agree

Section 2: Attitudes Toward the Wind Project / Process

The next few questions concern the wind project planning and development process.
Definitions:
*"**Planning process**" - the period from before the initial announcement in the community to the beginning of construction.*

3. I personally had a meaningful participation in the planning decisions of the wind project.

Strongly Disagree Disagree Neutral Agree Strongly Agree Unaware of the project

4. I personally attended one or several meetings about the wind project.

Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree | Unaware of the project

5. I had no real desire to have a meaningful influence on the local wind project.
Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree | Unaware of the project

6. The planning process was open and transparent.
Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree | Don't know

7. The planning process was fair.
Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree | Unaware of the project

8. The community members were able to meaningfully influence the outcome of the wind project. For example, the location or number of turbines
Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree | Unaware of the project

9. The construction went on smoothly.
Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree | Unaware of the project

10. What was your primary source of information about the wind project?
    a. Chief and Council__
    b. HIAH Corporation newsletter__
    c. Community meetings __
    d. Local news or media __
    e. Family and friends __
    f. Other (please specify) _____

11. I had access to an adequate amount of information about the wind project during planning and construction.
Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree

12. I currently have access to adequate information about the wind project during planning and construction.
Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree

13. How much did the planning process change your opinion about the wind project?
The planning process made your opinion...
    a. Much more negative
    b. More negative

c. The same
d. More positive
e. Much more positive

14. What is your current attitude toward the local wind project?
Very Negative Negative Neutral Positive Very Positive

15. Regardless of your attitude now, what was your attitude toward the local wind project before it was constructed?
Very Negative Negative Neutral Positive Very Positive

16. Which of the following best describes your strongest reaction when you **first heard about** your local wind project? (Select only one)
    a. Proud
    b. Content
    c. Fearful
    d. Hopeful
    e. Helpless
    f. Angry
    g. None of the Above
    h. Don't Know

17. Which of the following best describes your strongest reaction when you first saw the turbines **constructed**? (Select only one)
    a. Proud
    b. Content
    c. Fearful
    d. Hopeful
    e. Helpless
    f. Angry
    g. None of the Above
    h. Don't Know

18. Which of the following best describes how you feel about the wind project **today**? (Select only one)
    a. Proud
    b. Content
    c. Fearful
    d. Hopeful
    e. Helpless
    f. Angry
    g. None of the Above
    h. Don't Know

19. How would you describe the way the wind turbines look? Select ALL that apply
    a. Attractive
    b. Fit well with the landscape of the local area
    c. Symbolize progress toward clean energy / A community landmark

d. Unattractive
e. Does not fit in the natural landscape
f. Symbolize degradation to Mother Earth
g. Don't Know

Section 3: Wind Project Benefits

The next few questions ask about the economic impacts of the local wind project

20. I feel that I have adequate information about the financial benefits of the project.
Strongly disagree Disagree Neutral Agree Strongly Agree

21. I feel that there has been sufficient discussion about the project benefits
Strongly disagree Disagree Neutral Agree Strongly Agree

22. I have actively sought information about the project benefits
Strongly disagree Disagree Neutral Agree Strongly Agree

23. I feel that the timeline for receiving benefits is too long
Strongly disagree Disagree Neutral Agree Strongly Agree

24. Which type of financial compensation would you MOST prefer?
a. Individual-level compensation (i.e., lump sum, annual or monthly payments
b. Community-level compensation (i.e., open space, schools, buildings, or wildlife enhancement)
c. Utilities-level compensation in the form of decreased electricity cost
d. Compensation is not appropriate
e. Don’t know

25. The **amount** of community-level benefits received from the wind project is fair.
Strongly Disagree Disagree Neutral Agree Strongly Agree Don’t know

26. The benefits from the local wind energy project are fairly **distributed** between members of the community.
Strongly Disagree Disagree Neutral Agree Strongly Agree Don’t know

Section 4: Wind Energy Development Preferences

Imagine you do not have a local wind energy development near you currently. The following are two hypothetical scenarios with associated questions.

Wind Energy Development Scenario 1, Outside Developer-Led Project

1. **Global developer/investor**:
   The developer is an overseas company with a long history in the wind energy industry.
2. **Turbine location decisions before public announcement**:
   Decisions about where the 10 turbines will be located will be made between HIAH Corp and the developer
3. **Community engagement pre-construction**:
   After the deals about turbine locations are made with HAIH Corp, there will be public meetings to inform you about the project.
4. **Community benefits package**:
   The local community will receive a lump sum per year to community development projects. No money will be paid directly to households.

27. I **support** the kind of development in Scenario 1.
    Strongly disagree Disagree Neutral Agree Strongly Agree

28. The **community engagement** process in Scenario 1 is fair.
    Strongly disagree Disagree Neutral Agree Strongly Agree

29. I think that the engagement process in Scenario 1 should include only on-reserve members
Strongly disagree Disagree Neutral Agree Strongly Agree

30. I think that the engagement process in Scenario 1 should include BOTH on-reserve and off-reserve members
    Strongly disagree Disagree Neutral Agree Strongly Agree

31. The process in Scenario 1 for deciding **where the turbines go** is fair
    Strongly disagree Disagree Neutral Agree Strongly Agree

32. The way the **benefits** are distributed in Scenario 1 is fair.
    Strongly disagree Disagree Neutral Agree Strongly Agree

33. I would rather see an annual payment to each community household via cheque
    Strongly disagree Disagree Neutral Agree Strongly Agree

34. I would rather see a reduction on each household's utilities bill
    Strongly disagree Disagree Neutral Agree Strongly Agree

35. The development process in Scenario 1 **makes me feel**
    a. Proud
    b. Content

c. Fearful
d. Hopeful
e. Helpless
f. Angry
g. None of the Above
h. Don't Know

Wind Energy Development Scenario 2, Community-Led Project

1. **Local Developer**:
   A group of community members is co-creating a wind project with an experienced wind developer who is paid only a consulting fee.
2. **Turbine location decisions after public announcement**:
   Decisions about the turbines' location involve all interested nearby residents.
3. **Community engagement**:
   Several community meetings will be held to shape the project and community feedback actively collected from the time the project is proposed until it is completed.
4. **Community benefits package**:
   The Band invests in the wind project and will receive a percentage of returns each year which will ultimately go to community development projects.

36. I **support** the kind of development in Scenario 2.
    Strongly disagree Disagree Neutral Agree Strongly Agree

37. The **community engagement** process in Scenario 2 is fair.
    Strongly disagree Disagree Neutral Agree Strongly Agree

38. I think that the engagement process in Scenario 2 should include only on-reserve members
    Strongly disagree Disagree Neutral Agree Strongly Agree

39. I think that the engagement process in Scenario 2 should include BOTH on-reserve and off-reserve members
    Strongly disagree Disagree Neutral Agree Strongly Agree

40. The process in Scenario 2 for deciding **where the turbines go** is fair
    Strongly disagree Disagree Neutral Agree Strongly Agree

41. The way the **benefits** are distributed in Scenario 2 is fair.
    Strongly disagree Disagree Neutral Agree Strongly Agree

42. I would rather see an annual payment to each community household via cheque

Strongly disagree Disagree Neutral Agree Strongly Agree

43. I would rather see a reduction on each household's utilities bill
Strongly disagree Disagree Neutral Agree Strongly Agree

44. The development process in Scenario 2 **makes me feel**
i. Proud
j. Content
k. Fearful
l. Hopeful
m. Helpless
n. Angry
o. None of the Above
p. Don't Know

The following questions more generally seek to understand the aspects of an energy project that are most important to you.

45. Which of the two development scenarios described above do you **prefer**?
a) Development Scenario 1 (Developer-led project)
b) Development Scenario 2 (Community-led project)

46. If you had to live near an energy project (within 5km), which would you prefer? Please rank the following options. (1 is most preferred, 5 is least preferred. Leave 'other' as 5 if not being used. Use each number only once)
a. 10+ turbine wind energy project ___
b. Nuclear power plant ___
c. Coal plant ___
d. Natural gas plant ___
e. 1+ hectare solar project ___

47. In general, the development of wind projects on Manitoulin Island should be... (Select only one)
a. Encouraged and promoted
b. Allowed in the rarest of circumstances
c. Prohibited
d. Don't know

48. I think that **renewable energy** is an effective means to help reduce the negative impacts of climate change
Strongly disagree Disagree Neutral Agree Strongly Agree

49. I think that **wind energy** is an effective means to help reduce the negative impacts of climate change.

Strongly disagree Disagree Neutral Agree Strongly Agree

50. Turbines typically have a lifetime of 20-25 years. What would you like to see happening at the end of the MERE project's lifetime? Select your preferred option (only one).

- Extend life with
  a. additional turbines
  b. the same number of turbines (two)
  c. the same number of turbines and add a training facility

- Sell the turbines and
  a. build a non-energy project---
  b. build newer turbines that generate more revenue
  c. Restore the land

- Don't know

Section 5: Relationships

Questions related to relationships during the planning period.

51. The wind project was an object of debilitating conflict/tensions in M'Chigeeng community?
Strongly disagree Disagree Neutral Agree Strongly Agree

52. The wind project was an object of debilitating conflict/tensions with neighbouring Indigenous communities?
Strongly disagree Disagree Neutral Agree Strongly Agree

53. The wind project was an object of debilitating conflict/tensions with neighbouring non-Indigenous communities?
Strongly disagree Disagree Neutral Agree Strongly Agree

Questions related to relationships today.

54. The wind project is an object of debilitating conflict/tensions in M'Chigeeng community?
Strongly disagree Disagree Neutral Agree Strongly Agree

55. The wind project is an object of debilitating conflict/tensions with neighbouring Indigenous communities?
Strongly disagree Disagree Neutral Agree Strongly Agree

56. The wind project is an object of debilitating conflict/tensions with neighbouring non-Indigenous communities?
Strongly disagree Disagree Neutral Agree Strongly Agree

57. MFN Band owns the wind turbines. Does this ownership affect the relationship with **neighbouring Indigenous communities**?
Yes No Don't know

58. MFN Band owns the wind turbines. Does this ownership affect the relationship with **neighbouring non-Indigenous communities**?
Yes No Don't know

59. "The provincial policies which support the turbine income to M'Chigeeng is a step on the way to Indigenous-Settler reconciliation"
Yes No Don't know

Questions related to relationships with the land

60. The wind project did disrupt animal and plant life during construction?
Strongly disagree Disagree Neutral Agree Strongly Agree

61. The wind project is still disrupting animal and plant life during operation?
Strongly disagree Disagree Neutral Agree Strongly Agree

62. The animal behavior and feeding patterns have been altered by the wind turbines.
Strongly disagree Disagree Neutral Agree Strongly Agree

63. The turbine noise has affected flight of birds.
Strongly disagree Disagree Neutral Agree Strongly Agree

Section 6: Demographic Information

This section of the survey is for demographic purposes only, so we can describe the group of people who responded to the survey. As a reminder, ***all of your answers are kept completely confidential and no identifying information is being collected.***

64. What is your gender?
Man Woman Other (please specify): _____ Prefer not to say

65. What is your age?
a. 18-29
b. 30-44
c. 45-59
d. 60-74
e. 75+

66. What is the highest level of education you have completed? (Select only one)
a. Less than high school
b. Some high school but no diploma
c. High school diploma or equivalent
d. College or University degree
e. Graduate or Professional degree

67. Which of the following **best** describes your current employment status? If your employment was terminated recently as a direct result of the COVID-19 pandemic, please indicate the employment status you occupied for the majority of the last 2 years prior to the pandemic.
    a. Employed full-time
    b. Employed part-time
    c. Unemployed and looking for work
    d. Unemployed and not looking for work
    e. Retired
    f. Homemaker/manage your home
    g. Student
    h. Something else (please specify)
    _____

68. In the last two years, on average, did you work any part of your week at home?
1-10 hours 11-20 hours 21-35 hours Full-time from home I do not work at home

Please let us know anything else regarding the issues covered in the questionnaire:

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

THANK YOU VERY MUCH FOR PROVIDING VALUABLE INFORMATION ABOUT LIVING NEAR A WIND ENERGY PROJECT!

Entry to the Draw

Please complete and return the section below with your questionnaire if you would like to be entered into a draw to win a gift card of your choice (Amazon, PC, Canadian Tire, or Walmart). There will be two 200 dollars cards and four 100 dollars cards.

As a reminder, the contact information you provide here will be stored separately from your questionnaire. The two will not be linked in any way after they are received. After winners for the draw have been determined, the paper version of these entries will be destroyed and the Qualtrics entries deleted.

Email: _____

Telephone: _____

Appendix D. Report to M'Chigeeng Chief and Council on the MERE partnership

Acknowledgments

We would like to thank the many people of M’Chigeeng who sat down to join the inaugural community meeting and those who participated in the interviews and survey: your role in this work has been essential. Miigwech.

We are grateful to Elder Alma Jean Migwans for sharing her wisdom in the Advisory Committee. Special thanks to Grant Taibossgai for encouraging this research partnership from the beginning. It has been a long journey since 2016. Miigwech.

This partnership would not have been possible without the engagement of Chief and Council throughout the project. We would also like to thank the staff of the Band Office and HIAH Corporation staff for stepping in and lending a hand at various moments along this research journey.

Chi-Miigwech.

Jamie Baxter (Principal Investigator)

Carelle Mang-Benza (Lead Researcher)

Jeff Corbiere (Renewable Energy Worker, M’Chigeeng First Nation)

Project ID

The research work is funded by a federal grant, Insight Grant program of the Social Sciences and Humanities Research Council of Canada (SSHRCC).

Project Title: Meanings of Community wind Energy

Duration of project: August 2018 – December 2021

Principal investigator: Dr. Jamie Baxter

Project Advisory Committee: Alma Jean Migwans (Elder), Grant Taibossigai (HIAH Corporation), Jeff Corbiere (HIAH Corporation), Jamie Baxter (Western University), and Carelle Mang-Benza (Western University)

Project funding: Insight Grant program of the Social Sciences and Humanities Research Council of Canada (SSHRCC) (Grant #435 2016-0867)

Contact details: Jamie Baxter at [email address redacted]

Executive Summary

While most wind projects on Turtle Island and particularly on the lands of the Anishinabek have been developed along a commercial investment model where developers profit most, M'Chigeeng First Nation boldly turned that model on its head through the Mother Earth Renewable Energy (MERE) project, wholly owned and operated by the community. This unique development model caught the attention of researchers from the University of Western Ontario (Western University) who reached out to the Band leadership in 2015 to discuss a research partnership. This report describes the partnership implemented in 2018-2021 and presents the main research findings.

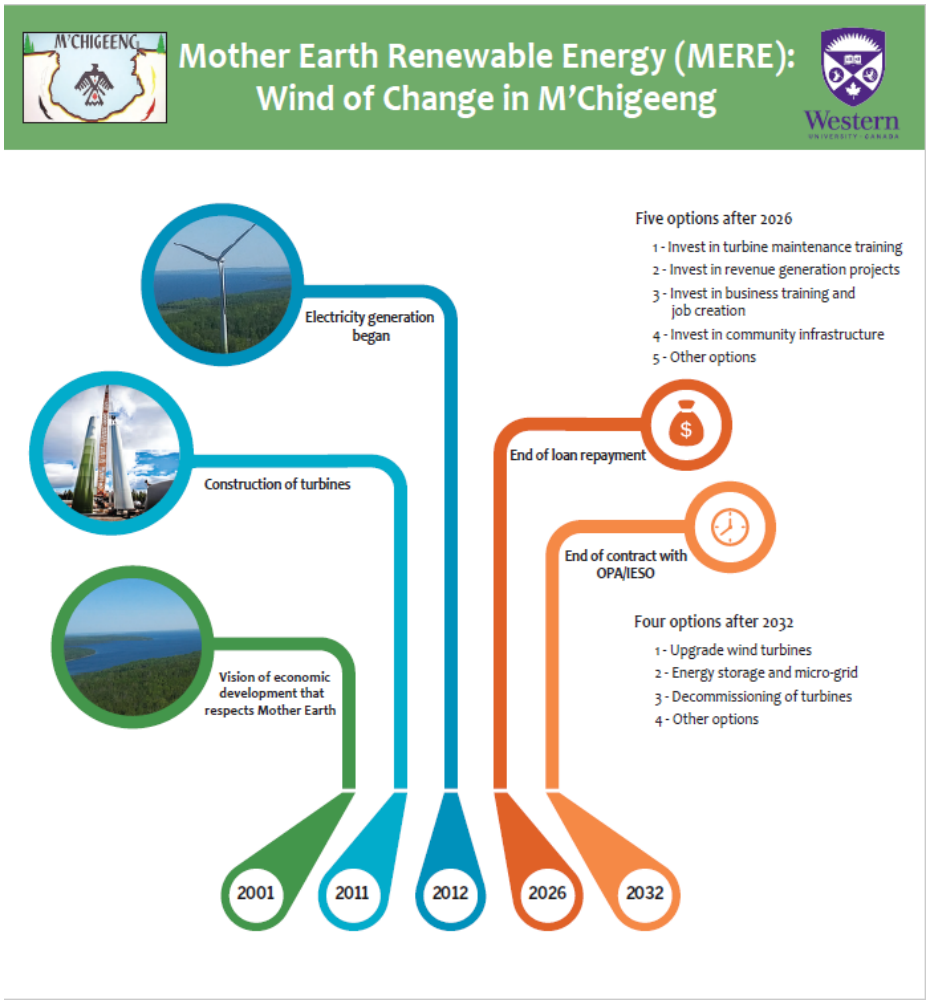
Synthesizing the 32 interviews conducted with members in 2019 and the 2021 community-wide survey, the report focuses on four themes: **acceptance of the turbines; communication; ownership; and relationships.** The findings reveal that 55% of members currently have a positive attitude towards the MERE project while 25% are neutral about it. This represents an increase in positive attitude over time since, before construction, 41% of members had a positive attitude and 38% were neutral. Pride is a key element in this positive attitude towards the turbines, a "good feeling" as one participant put it. Nevertheless, moving forward though, M'Chigeeng members would appreciate more transparent, comprehensive, and accessible information on the project and the generated benefits. Limited and ambiguous communication on the project from the planning stage to the present led to various interpretations and intracommunity tensions. These tensions however remain manageable, tempered by a general feeling of pride among members, most likely credited to owning the turbines.

The 10th anniversary of the beginning of operation offers a fitting occasion to reengage community members around the vision of MERE and how it fits within the community. As pointed out in the interviews, "dancing for settlers at powwows does not pay" at M'Chigeeng First Nation. Yet, harnessing the full potential (social, cultural, and economic) of community-led initiatives like the MERE project can do a lot to support community healing and self-reliance.

1 Introduction

The research partnership between M'Chigeeng First Nation and researchers from the University of Western Ontario about the meaning of the wind turbines grew from Western University researchers approaching M'Chigeeng leadership, intrigued by the unique ownership model of the Mother Earth Renewable Energy (MERE) project. It is one of the longest running community-owned wind energy projects on Turtle Island/Canada. Throughout the partnership, the academic team has been careful to ground the research approaches in community views and concerns to produce findings that benefit the community.

Figure 1. MERE and research partnership timeline



Design: Credit to Karen Vankerkoerle, Department of Geography and Environment, University of Western Ontario

The above timeline (Figure 1) indicates that the initial vision took approximately 10 years of progressive planning, community consultation and hard work prior to the construction phase. The MERE project was constructed with a 15-year long-term loan which is anticipated to end in Fall of 2026. MERE began generating power under a 20-year Feed-in-Tariff (FIT) contract with the province of Ontario in September of 2012. A feed-in tariff is a favorable price guaranteed by the electricity buyer for the duration of the contract, in this case the province of Ontario. The Feed-In-Tariff contract ends in September of 2032. Upon the completion of the FIT contract, there are several options to decide on the fate of MERE with community consultation.

Discussions about a possible research collaboration started in late 2015 and continued, both on the phone and face-to-face at the Band Office, until the adoption on August 7th, 2018, of a Band Council Resolution (BCR) authorizing the research project for two years initially. The purpose of the research partnership is to explore the meanings of the MERE wind project as it relates to community harmony, self-determination, and control of resources. Obtaining the BCR would not have been possible without the active engagement of HIAH Corporation staff, especially Grant Taibossigai, General Manager, and Jeff Corbiere, Renewable Energy Worker, who remained committed to the partnership at every stage. Their engagement was also instrumental in securing the extension of the BCR from September 1st, 2020, to December 31st, 2021, an extension necessary to accommodate the new research needs and account for the impact of the Covid-19 pandemic.

Box 1. Main research question

What is the meaning of the Mother Earth Renewable Wind Energy project for members of M'Chigeeng First Nation?

The idea of setting up a project Advisory Committee to ensure continuous communication and respect of community values was agreed at the first partnership meeting in November 2018 at the Band Office. Committee members include community Elder, Alma Jeans Migwans, and HIAH staff (Grant Taibossigai, Jeff Corbiere, and an Admin Assistant), and on Western University side, Principal Investigator, Dr. Jamie Baxter, and a PhD student, Carelle Mang-Benza. Over the course of the project, the Committee met regularly (monthly and sometimes every two weeks) and discussed social science methods to engage community members, participation advertisements (launch event, flyers, newsletter, word of mouth), and data collection instruments (interview guide and survey questionnaire). The following section describes in more details the various community interactions throughout the project.

2 Community engagement

The project was officially presented to the wider community on 25 July 2019 at a family-friendly town hall evening held at the Community Complex and catered by a local restaurant. After the traditional opening prayer by Elder Eria Beboning and former Chief Joseph Hare recounted the origins of the MERE project and some of the challenges faced in the early 2000s. Members of the Research Partnership Advisory Committee then provided an overview of the MERE project and explained the main objectives of the research partnership and how members' input would be sought (see Figure 2). Two posters prepared at Western University (Figure 1 and 3) were on display in the meeting room.

Figure 2. Community launch event on 25 July 2019

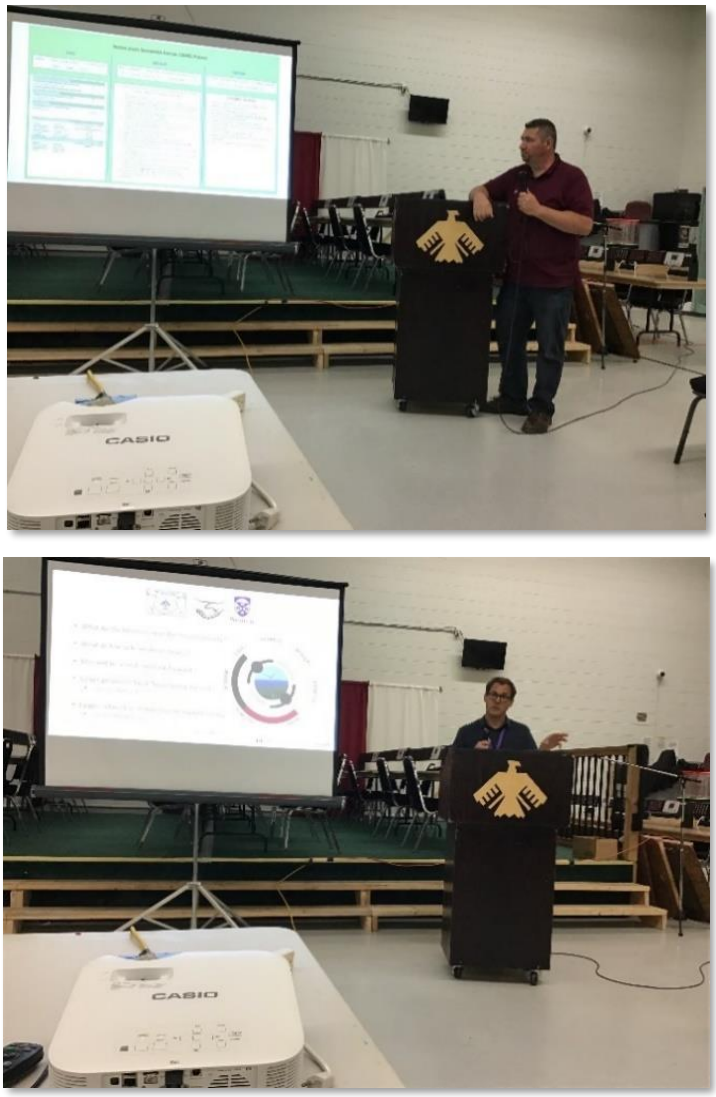
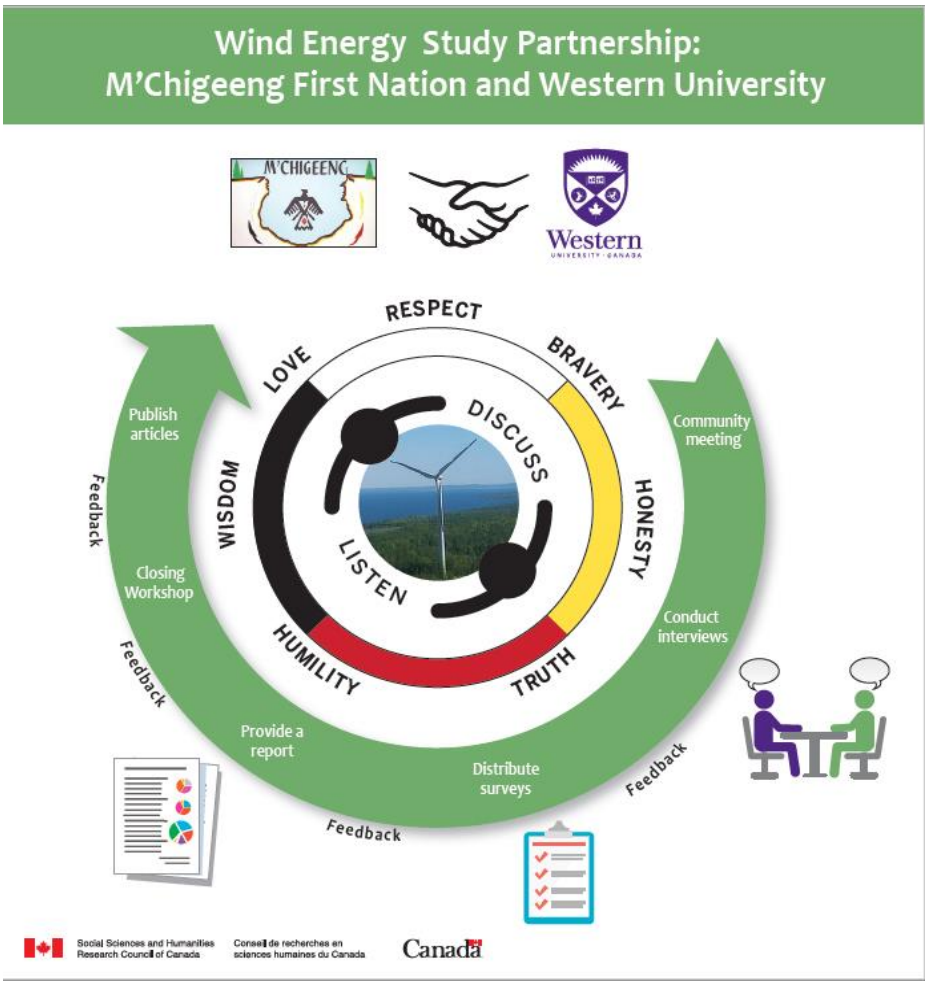


Figure 3. Partnership project overview



Design credit: Karen Vankerkoerle, Department of Geography and Environment, University of Western Ontario

2.1 Interviews

The goal of the interviews was to understand the meanings of the wind turbines in the words of M'Chigeeng members. The interviews consisted of in-depth conversations held in whichever place the participant felt most comfortable – mostly in the participant's home or at a local restaurant. A guide of topics was used as prompts and the conversation was otherwise free flowing, allowing the participant to identify topics they feel are relevant to the overall topic of the turbines. Each interview was transcribed into text and then analysed using software designed to help manage the interpretation of large amounts of text.

We recruited participants in various ways. The July 2019 project launch meeting (community meeting) provided the opportunity to recruit the first interview participants. A box was left at the entrance of the meeting room for members to voluntarily leave their contact information for an interview. Others were invited to participate by word of mouth from people already interviewed. A total of 32 interviews were conducted on-reserve in two rounds in August and October 2019. Interview participants had the opportunity to participate in a draw to win one of four PC Optimum gift cards allowing to shop at the local grocery store (Freshmart) run by M'Chigeeng.

Interview results were compiled, and a summary of initial findings was sent to participants by email and post, giving them the opportunity to make amendments. We received amendments from three participants, and they have been incorporated in the results.

2.2 Survey

The goal of the survey was to test ideas generated in the analysis of the interviews – for example the hypothesis that the majority of members are positive towards the turbines. The idea of conducting a mail-out & mail-back survey after the interviews was discussed by the Advisory Committee to elicit feedback from the broader community membership. The survey is comprised of topics that arose in the interviews, including attitudes toward the wind project, wind project benefits, project development preferences, and relationships. Surveys were mailed in three rounds in April, September, and October 2021, using the Band membership list accessible only to key Band Office staff. The list used in the first two rounds contained 1408 names but was updated in the last round to 1367 names to account for deaths and invalid addresses. Several issues of the Band newsletter included inserts to encourage members' participation. Participants were eligible to enter a draw to win one of six gift cards (two 200 dollars cards and four 100 dollars cards). A total of **161** questionnaires were returned to Western University by November 30th, 2021. Table 1 provides a broad description of the respondents, indicating a wide array of those who responded with a completed survey. As of Nov 30th, 2021, 161 questionnaires were returned, which includes some duplicates based on repeated emails. Emails were only collected for the draw. All returned surveys are included in the analysis because there is a possibility that more than one adult per household uses the same email address. However, email addresses are only counted once in the draw.

Table 1. Characteristics of survey respondents (Total responses received n=161)

	On reserve count % of all respondents	Off reserve count % of all respondents	Total row count % of all respondents
All respondents	93	64	157
	58%	40%	98%
Men	33	22	55
	20%	14%	34%
Women	55	41	96
	34%	25%	60%
Gender not specified	3	0	3
	2%	0%	2%
Age below 45	29	18	47
	18%	11%	29%
Age 45+	59	45	104
	37%	28%	65%
Education high school and below	40	29	69
	25%	18%	43%
Education college and above	50	34	84
	31%	21%	52%
Employed full time	34	31	65
	21%	19%	40%

2.3 Local research assistant

The 2018 BCR highlighted the importance to build capacity in the community through the research partnership, either via a scholarship for a member of M'Chigeeng First Nation or by working with the local high school. The Advisory Committee recruited a research assistant in a short-term role, to support the research partnership.

2.4 Project Outputs

The main outputs of this research project include a summary of interview findings, a dedicated project website, journal articles, opening and closing community events, this report, and an animated video summarizing the research findings. The animated video is proposed to visually represent the key findings to the whole community, in line with concerns expressed by the Advisory Committee and members throughout the research collaboration. The findings, including the animation, will be presented at the closing community event in 2022. The following section presents the main findings gleaned from the analysis of 32 face-to-face interviews and the community-wide survey of M'Chigeeng members.

3 Research findings

The interview and survey findings are presented together under four main themes, i.e., **attitude towards wind turbines and acceptance, communication, ownership, and relationships**. The interviews provide the words of participants while the quantitative survey results give us a better sense of how a broader sample of the membership is thinking about the topic.

3.1 Attitude towards wind turbines and acceptance

Box 2. Turbines as symbols of power (fist up)

"To me it's (the turbines are) just like one big fist sticking out like this (gesture)... Two of them".
Interview participant

3.1.1 Current attitude towards the turbines

Members are generally supportive of the turbines. As shown in Figure 4, 56% of the members who answered this question on the survey have a positive or very positive attitude currently while 25% are neutral about it, leaving only about 19% who have negative (13.2%) or very negative (5.3 %) attitude. This represents an increase in positive attitude over time since, before construction, 41% of members had a positive attitude and 38% were neutral.

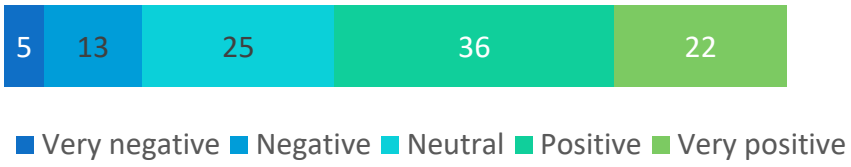
Members provided various reasons for their positivity in the interviews, ranging from economic progress for the community and ecological consciousness to the appeal of financial revenues.

Box 3. Turbines as ecological choice

"If someone makes a comment about it if I'm wearing a wind turbine shirt, I'll just say well I prefer wind to nuclear. Only takes one of those nuclear plants to destroy our lakes I tell them. They usually just shut up."
Interview participant

Figure 4. What is your current attitude toward the local wind project? (n=159)

Note: numbers indicate % of respondents. Numbers may not add to 100% due to rounding.



Despite the general positive attitude, there is also discontent. During the interviews, some members shared their pain about the cultural impacts and ecological impacts of erecting the turbines. One participant adamantly complained about the sleep disruption from the noise.

Box 4. Turbines as disruption

"I don't care for where they are situated... I'm in this house and I hear those. Those things wake me up at night 'cause I hear that [whoosh] [whoosh]."
Interview participant

Along the spectrum of attitudes between enthusiastic support and discontent, some interviews participants expressed their willingness to live with them out of indifference or even resignation, in an attitude of I'm-not-happy-but-not-mad-enough-to make-a-fuss. These members may be found in the neutral portion of Figure 4.

Box 5. Indifference towards the turbines

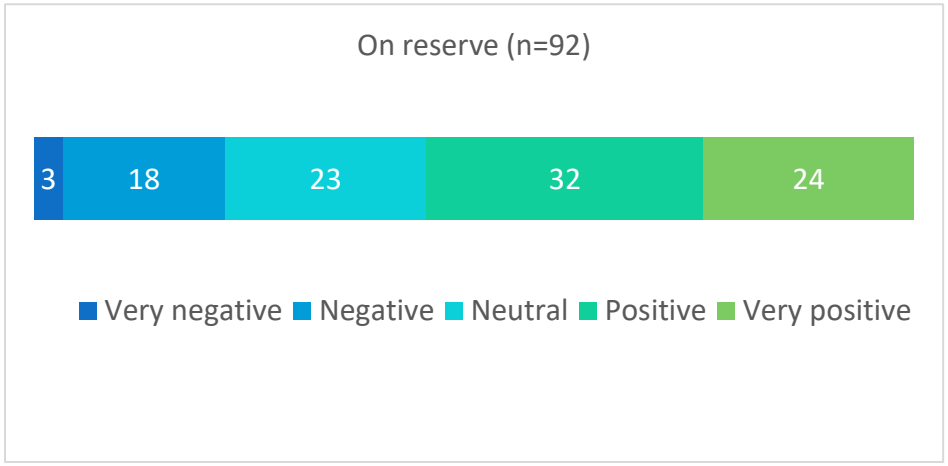
"I think a lot of people are just walking away, don't want nothing to do with it because it's like, you know, they already promised free hydro, that didn't happen, and whatever. And then those meetings about what they should do with the money and then...And then they do their own thing. They spent it already."
Interview participant

3.1.2 Comparing attitude of members living on and off reserve

The survey also assessed the difference in perceptions between on and off reserve members regarding their current attitude towards the turbines, their preferred development model for a hypothetical wind project, and preferred financial benefits. The place of residence has little significance on these variables. Figure 5 illustrates the positive and very positive attitude toward the turbines expressed by 56% of on-reserve respondents and 61% of off-reserve respondents. There is an overwhelming preference for community-led projects, as expressed by 69.4% of on-reserve and 80.5% of off-reserve members.

Figure 5. What is your current attitude toward the local wind project - On and off-reserve

Note: numbers indicate % of respondents. Numbers may not add to 100% due to rounding.



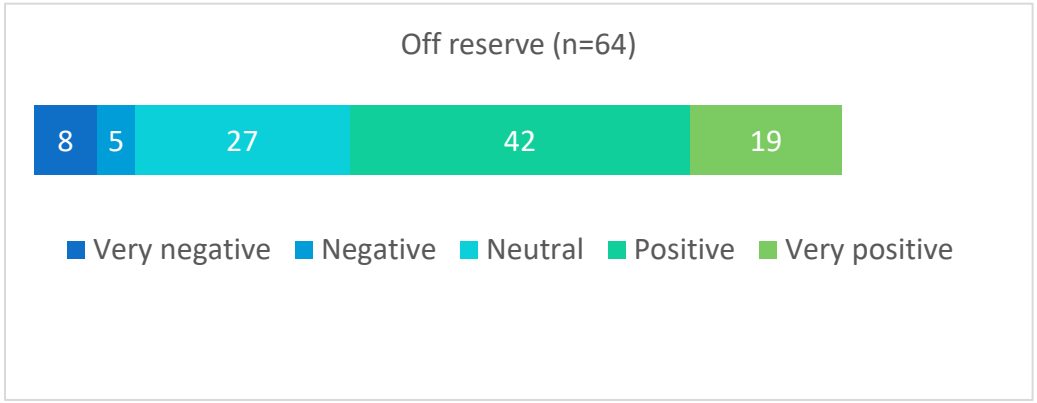
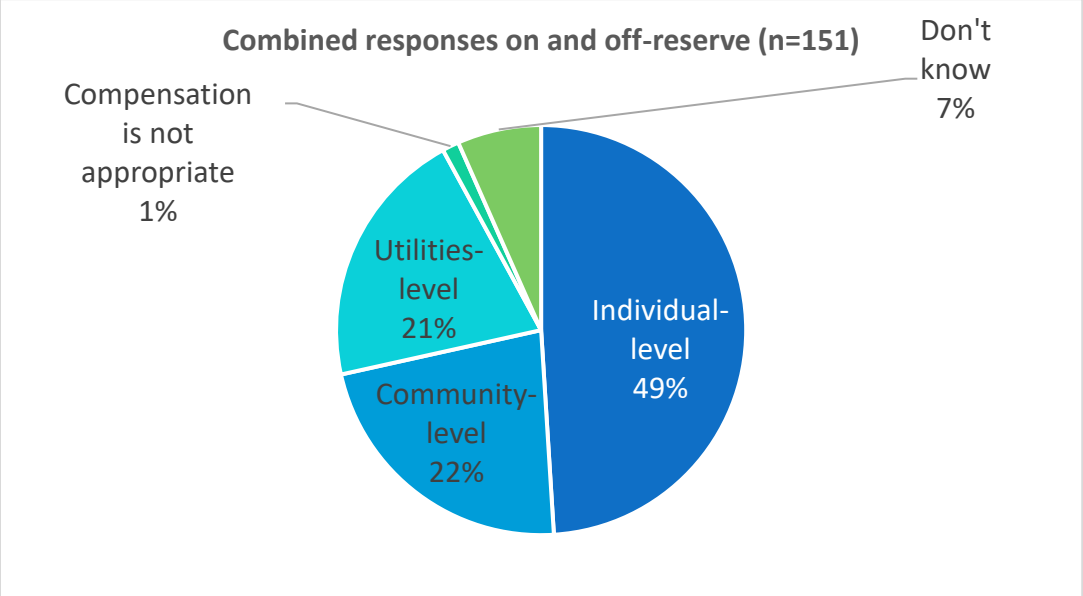
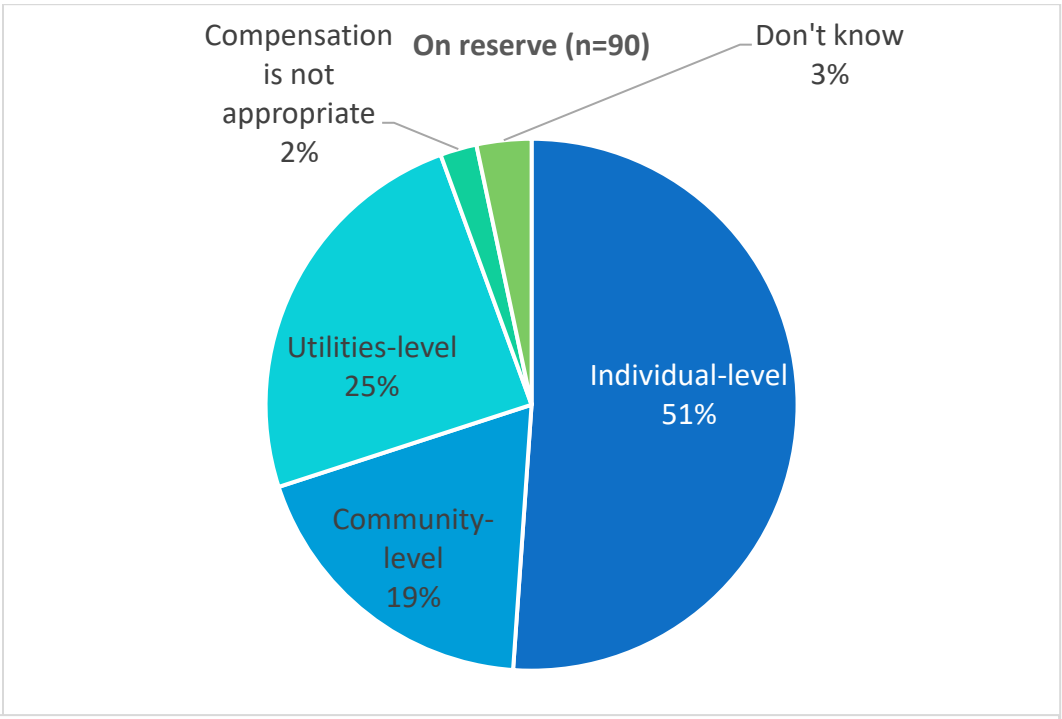
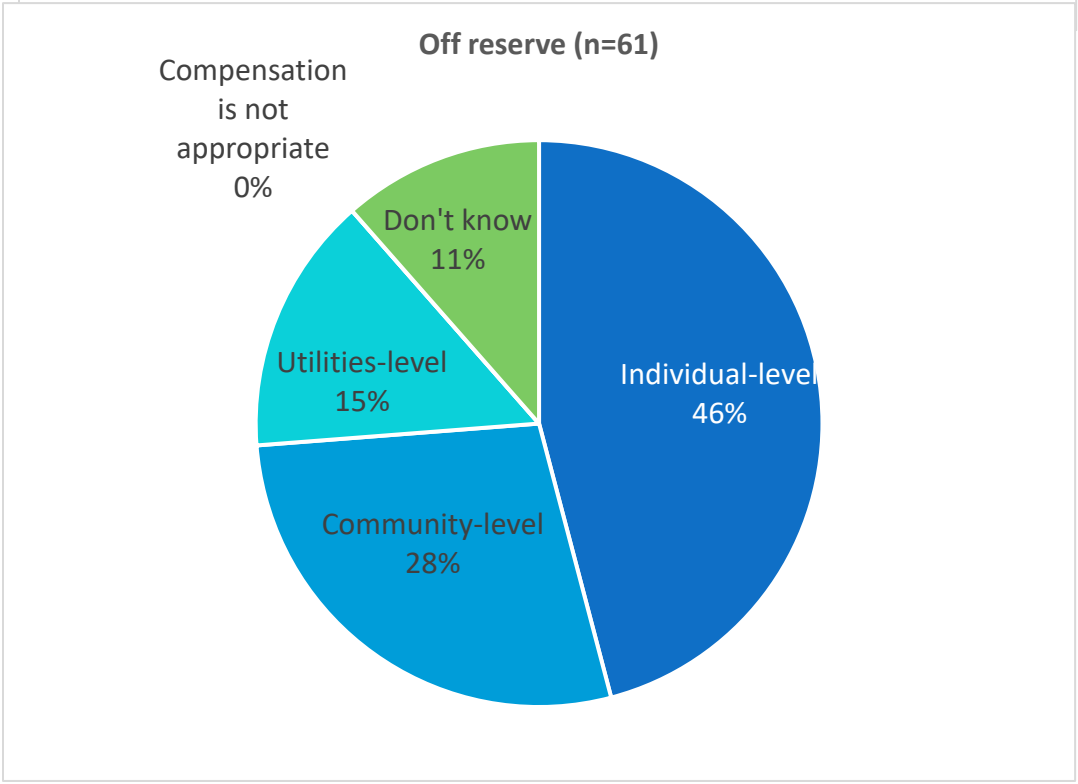


Figure 6 illustrates the preferences about types of benefits accrued from selling electricity: among on-reserve respondents, 51% would prefer individual benefits and 25% would prefer benefits applied to utilities, while off-reserve would prefer individual benefits (46% of respondents) followed by community benefits (28%). There is a significant association between the preferred type of financial compensation and the current attitude towards the turbines (p=0.004).

Figure 6. Which type of financial compensation would you MOST prefer?




On reserve (n=90)
Compensation is not appropriate 2%
Don't know 3%
Utilities-level 25%
Individual-level 51%
Community-level 19%


Off reserve (n=61)
Compensation is not appropriate 0%
Don't know 11%
Utilities-level 15%
Individual-level 46%
Community-level 28%

3.2 Communication

3.2.1 Communication during planning and construction phases

Box 6. Calling for culturally appropriate communication

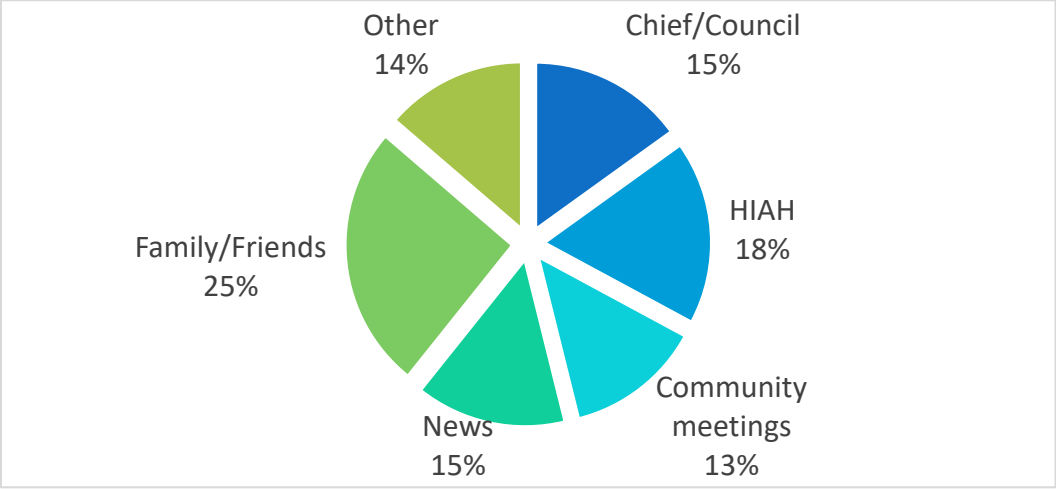
"I was first put off by the term energy…Some meetings took place but I never attended for lack of interest. I keep to myself… The information about the wind turbines did not match cultural communication codes, which are oral and hands-on. It did not build trust…it is important to keep in mind the levels of education, literacy, and also past issues of trust."
Interview participant

There is a general sentiment that the information on the project was flowing more readily before and during the turbines' construction than since they started generating electricity in 2012. For many members, the interest in the project waned because of insufficient information or lack of culturally appropriate communication. Eight survey questions related to members' experience during the planning and construction phases were combined to form a single index measuring overall experience with the past process. There is a significant correlation between the index of past process experience and the current attitude towards the turbines, which means that the members' experience of the planning process is likely to influence their attitude towards the turbines. A positive process experience can be connected to the perception of having meaningful participation in planning decisions, the ability to attend meetings, the perception that the process was open and transparent, or the perception that the construction went on smoothly. During the interviews, several respondents recalled that the early project communication got politicized, which caused some distortion of information. One major contentious point remaining on several people's minds is the expectation or promise that one of the project benefits would be free electricity on the reserve.

We asked members about their primary source of information about the wind project, 25% of the respondents reported that their main source of information on the project was

family and friends, followed by HIAH Corporation[13] newsletter with 18%, then local news and Chief and council with 15% each (see Figure 7). The survey did not ask the respondents to explain why they relied on a particular information source. It is possible that the perception of insufficient communication might be related to the choice of informal (family and friends) sources of information, rather than formal ones (community meetings or Chief and Council). Regardless of the reason, the survey confirmed the extent of the communication-related discontent expressed in the interviews.

Figure 7. "What was your primary source of information about the wind project?"



3.2.2 Current communication

While one interview participant acknowledges that information as a two-way responsibility, incumbent on both leadership and members, there is a clear need for transparent and up-to-date information on the project. Only 24% of respondents felt they had adequate access to information about the wind project (agree and strongly agree),

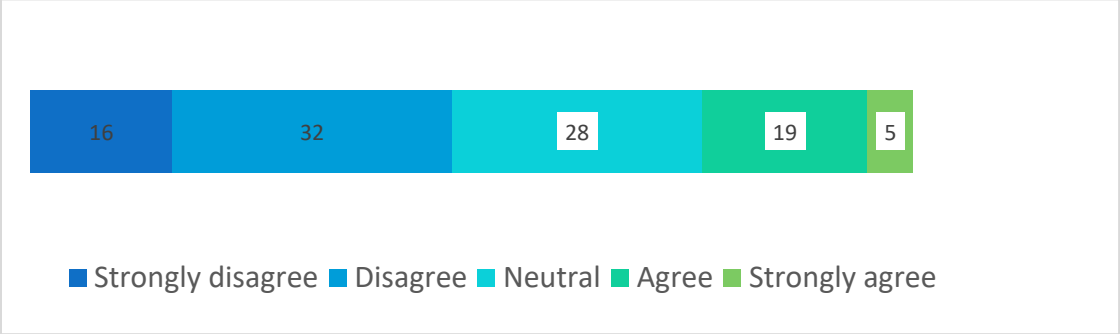
[13] HIAH is the economic development corporation of M'Chigeeng First Nation. HIAH means "We own it"

while 48% of disagreed or strongly disagreed the amount of information was adequate (see Figure 8).

Box 7. Communication as a shared responsibility

"It's up to them (Band members) to get there to know to be informed and when they don't do it and then they point the fingers…Oh Chief and Council did this… oh Chief and Council did that. No, chief and council said okay let's have a community information session so it's up to the individual to get there.
Interview participant

Figure 8. "I currently have access to adequate information about the wind project" (n=155)

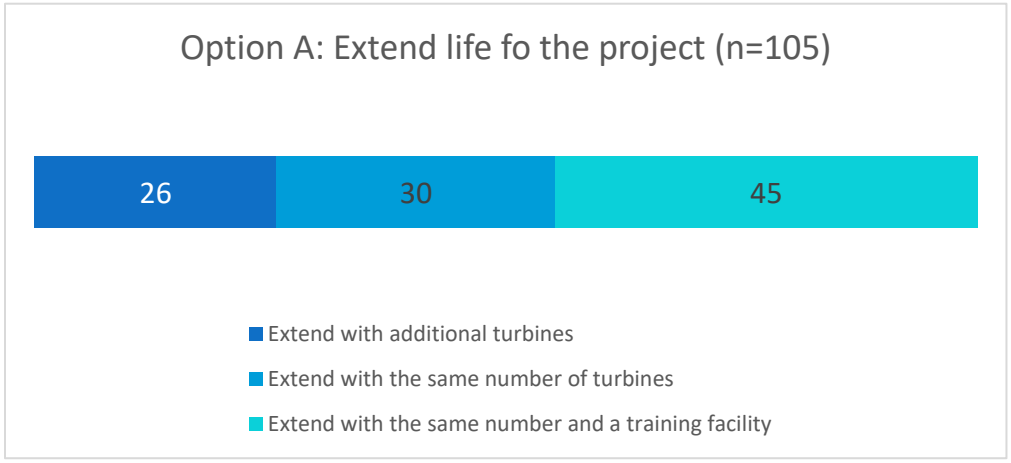


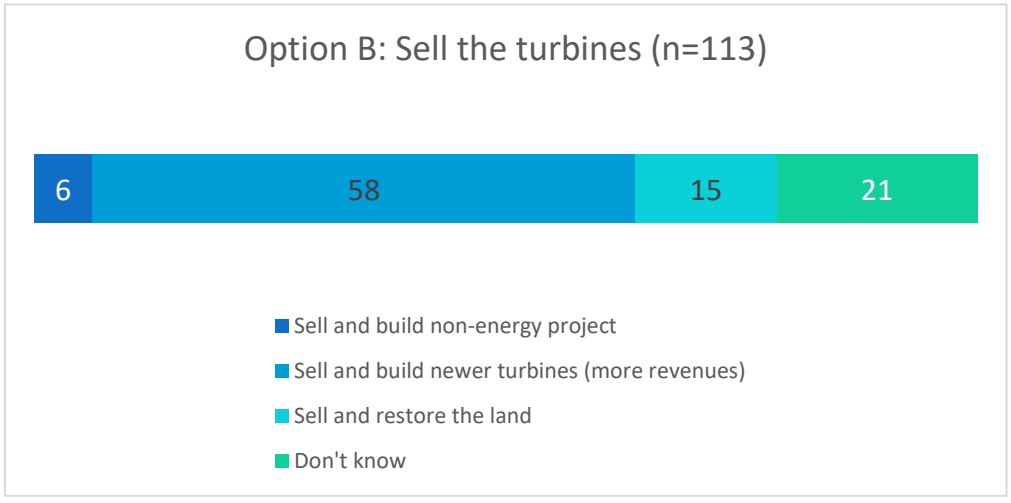
3.2.3 Communicating for the future

Addressing communication deficiencies is key to adequately prepare the next stage of the MERE project. The survey included a question about the future of the MERE project: "Turbines typically have a lifetime of 20-25 years. What would you like to see happening at the end of the MERE project's lifetime?" The question contained a first option to "extend the project life with" with three sub-options: "additional turbines"; "the same number of turbines (two)"; and "the same number of turbines and add a training facility". The second option was to "Sell the turbines and", with three sub-options: "build a non-energy project"; "build newer turbines that generate more revenue"; and "Restore the land".

As shown in Figure 9, under the option to extend the project life, most respondents (30 plus 45%) would prefer extending with the same number of turbines, with the possibility of adding a training facility appealing to the majority. Only 26 % of respondents are in favour of extending the project life with more turbines. Should the turbines be sold at the end of their lifetime, 58% of respondents would prefer installing newer turbines that would generate more revenues but 15% would rather see the land being restored. This result combined with the previous other option A not only confirms that most members currently support their MERE project, but also are in favour of having turbines on the land in the future. This underscores the importance of opening communication spaces in the community to discuss the project status and prepare the coming years.

Figure 9. "What would you like to see at the end of MERE project lifetime?"





3.3 Pride of Ownership

Box 8. Ownership as legacy

"We can generate and have it for our younger ones. The younger generation…But we should have our own... on our... for our reserve…Yeah, like... you know, have our own turbines".
Interview participant

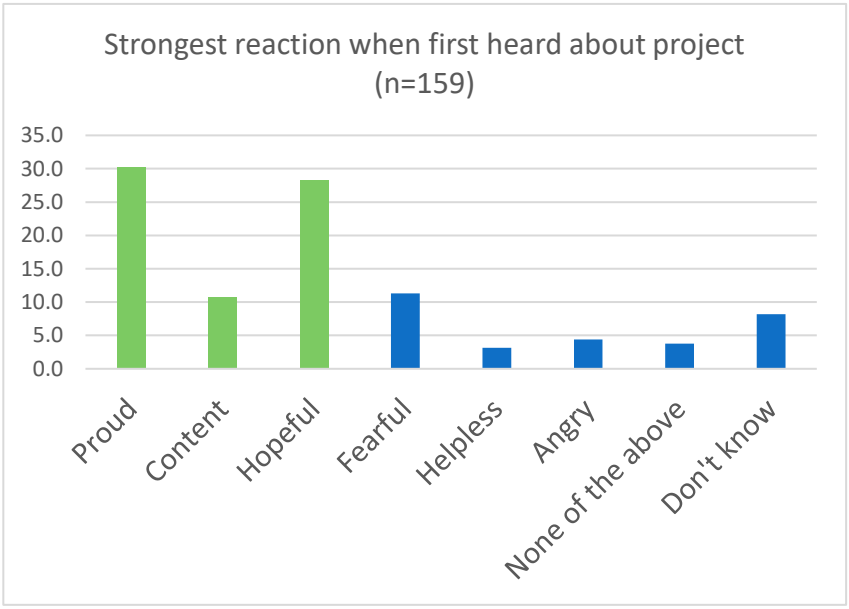
Pride is a prevalent feeling among members, something that may be attributed to the ownership model, even though, as noted earlier, insufficient information dampens the enthusiasm about the project. The interviews revealed that few members know exactly who owns what and feel that the business model is shrouded in some sort of "legalese". This gives way to rumors about who owns the land where the turbines are installed.

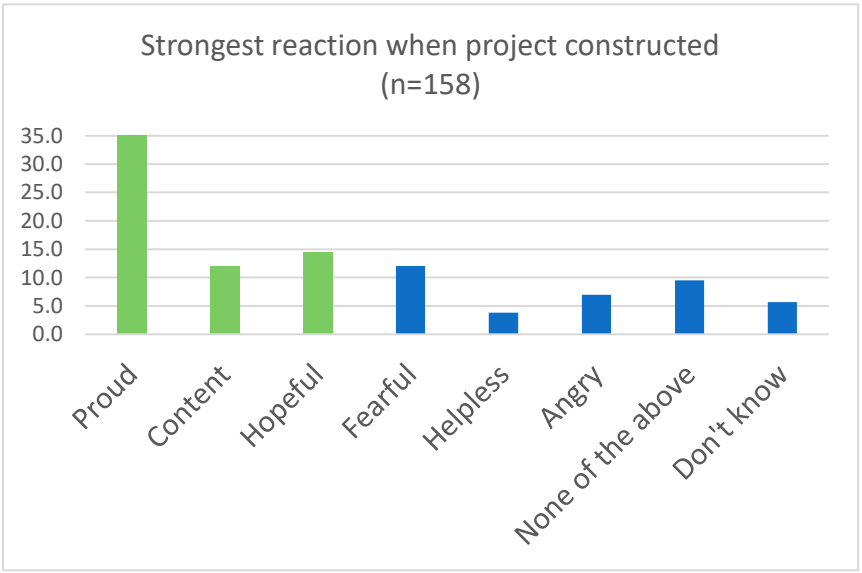
Box 9. Ownership should be better explained

"I think people are indifferent because they don't know exactly who owns what……. I don't think they know about the ownership. I didn't really know about the ownership, I just thought it was some sort of lease, or agreement, or some sort of legal... legalese (legal jargon)"
Interview participant

Nevertheless, as illustrated by Figure 10, at every stage of the project development (project announcement, construction, and current operation), the feeling of pride dominates. To further test whether the feeling of pride was connected to ownership, members were asked their preference between a hypothetical developer-led project and a community-led project. An overwhelming majority (75% of on reserve and 80% of off-reserve members) would prefer the community-led model (see Figure 11). This gives more credence to the explanation about the prevalent feeling of pride deriving from turbine ownership.

Figure 10. Feelings towards the wind turbines in the community (% of respondents)





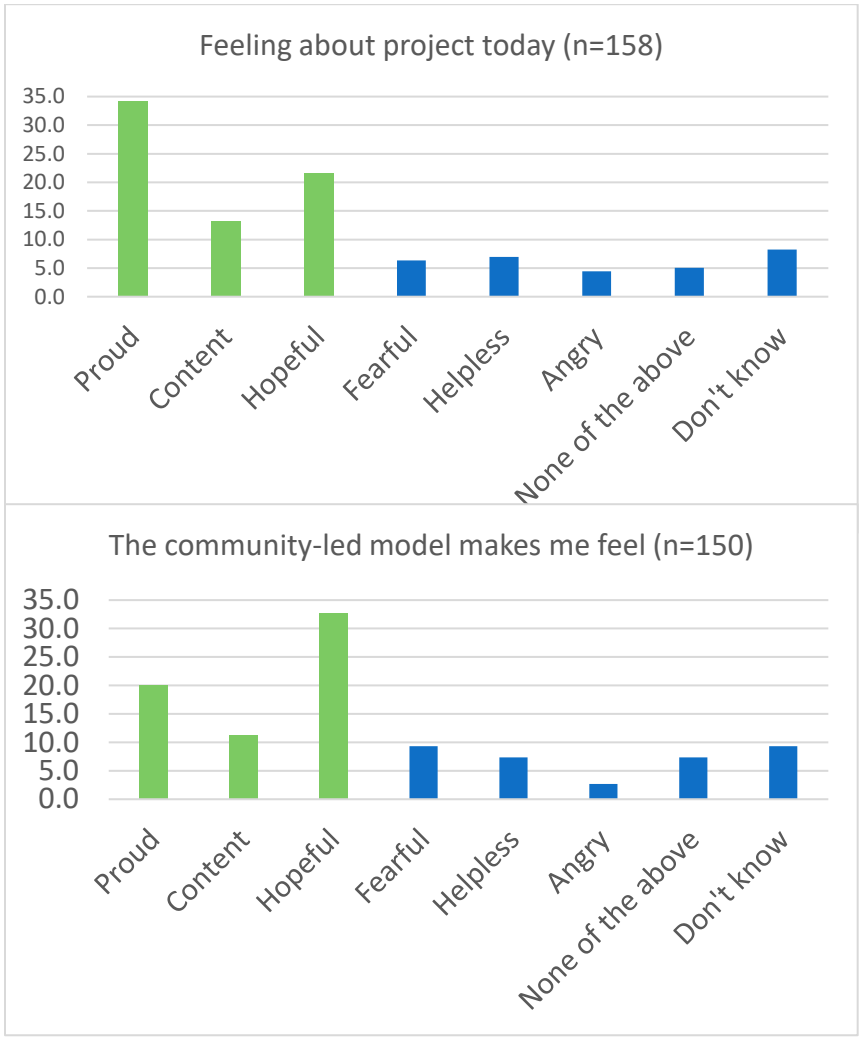
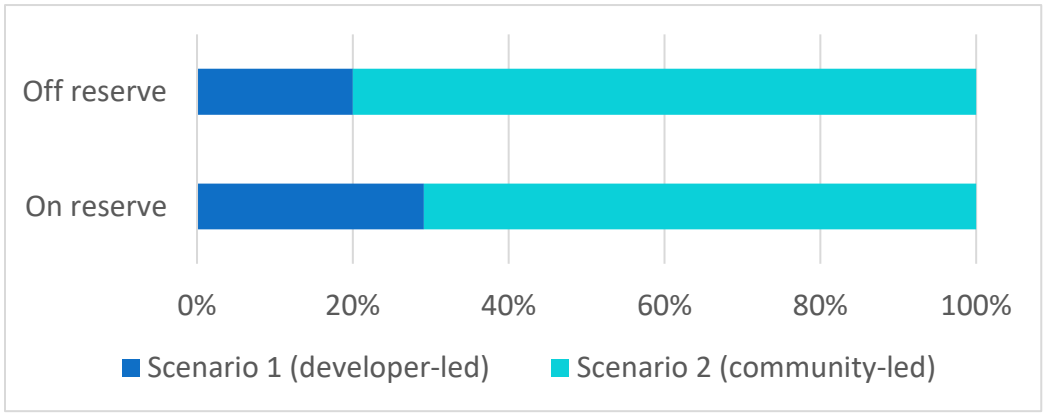


Figure 11. Which of the two development scenarios described above do you prefer? (n=129)



Box 10. Ownership is important for self-determination

"Natives were primary owners of the land, so the notion of ownership is important to them for economic reasons"
Interview participant

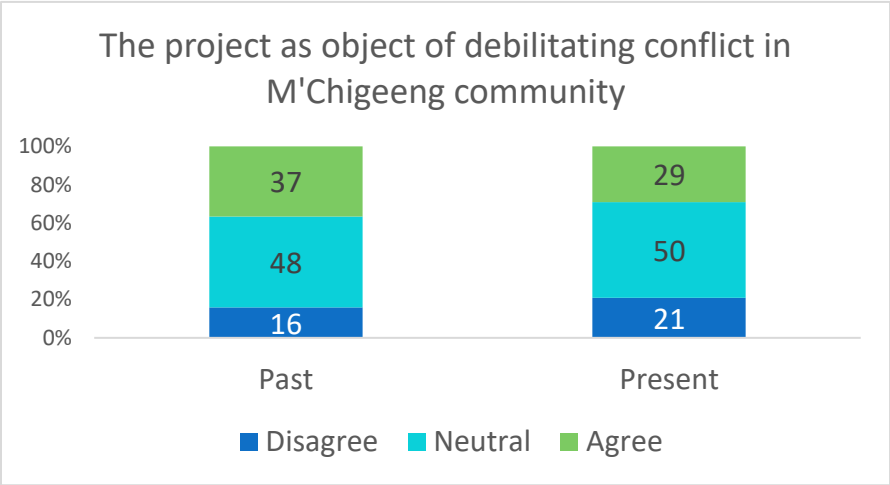
3.4 Relationships

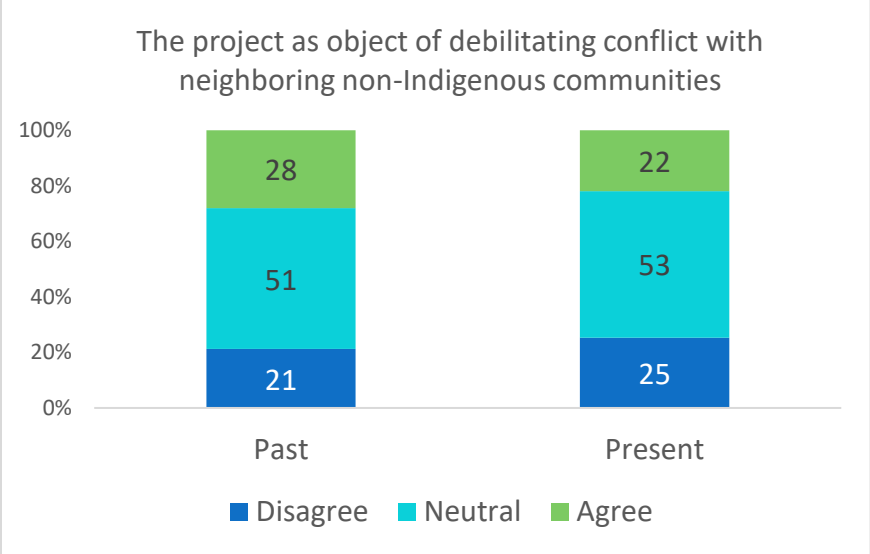
A unique aspect that transpired from examining the meanings of MERE wind turbines is the importance of relationships, both human to human and human to non-human relationships.

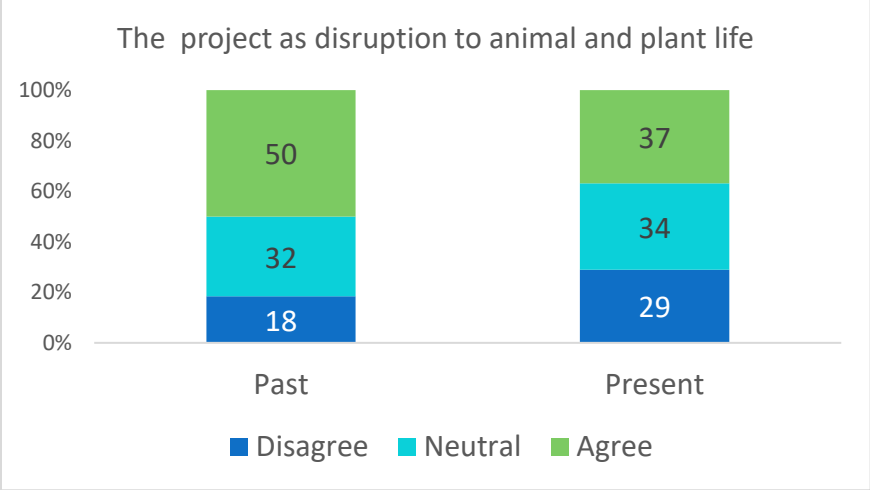
Figure 12 illustrates the responses to six questions about conflicts within M'Chigeeng; conflict with non-Indigenous neighbors on Manitoulin Island, and disruption caused to animal and plant life. The vertical bars illustrate the percentage of respondents who disagree with, are neutral about, and agree with, the following statements applicable to the planning phase (Past) and the current operation (Present):

- The wind project **was** an object of debilitating conflict/tensions in M'Chigeeng community? (n=145)
- The wind project **is** an object of debilitating conflict/tensions in M'Chigeeng community? (n=148)
- The wind project **was** an object of debilitating conflict/tensions with neighbouring non-Indigenous communities? (n=146)
- The wind project **is** an object of debilitating conflict/tensions with neighbouring non-Indigenous communities? (n=146)
- The wind project **did** disrupt animal and plant life during construction (n=152)
- The wind project **is** still disrupting animal and plant life during operation (n=152)

Figure 12. Perceptions about relationships over time (% of responses)







3.4.1 Relationships inside M'Chigeeng

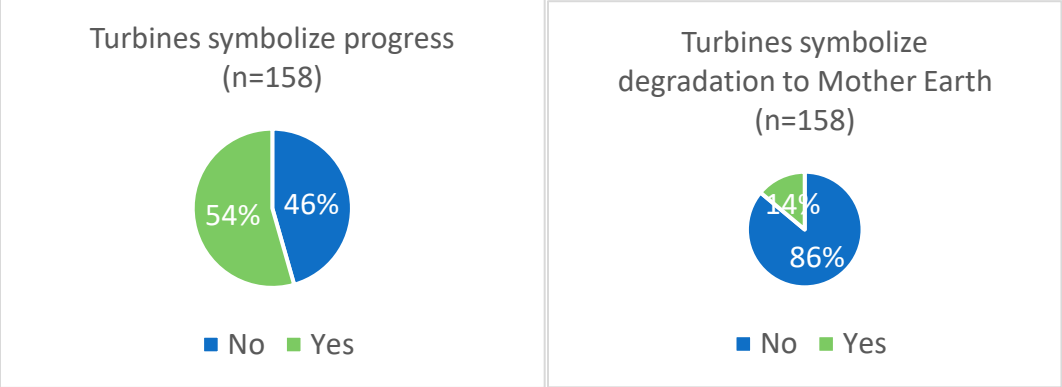
Box 11. Turbines as restoration

"That (wind project) made us feel better about ourselves and stronger as a community because you know, you've done something, something good has happened and it's going to benefit us for a while and... it's a very... it's a very good feeling for an oppressed people.".
Interview participant

Most residents did not feel the project cause serious conflict. Though the project gave rise to questions, rumors, and grumblings, intra-community relationships did not seem affected in a dramatic way. Any tensions that did exist have even subsided over time Figure 12) which is often the case in community wind projects.

Figure 12 also shows that 50% of respondents agreed that the turbines disrupted the animal and plant life during construction but feel less strongly about now in the operation phase. This is consistent with responses to the survey question "How would you describe the way the wind turbines look?" (see Figure 13). 14% of respondents consider that the turbines symbolize degradation to Mother Earth while 54% of respondents view the turbines as symbols of progress.

Figure 13. How would you describe the way the wind turbines look?



3.4.2 Inter-community relationships

Box 12. No money dancing for you at the powwow

"One lady came and told me... she said you know I... I used to have a lot of respect for you, she says.., I used to come to your pow wow every year and I loved to watch the people dance and... I just loved that, she says. But now you're going to build windmills she says. I don't like that idea at all she says, I don't... I have no more respect for you. I told her, I said you know, Ma'am, I said there's no money in dancing for you at the pow wow. I said."

A project like the MERE project cannot be disconnected from the colonial context of Canada and resulting marginalization of Indigenous communities. The interviews and survey reveal that members connect the MERE project to relationships with neighboring Indigenous and non-Indigenous communities in more of less vivid ways. Some interview participants mentioned that tensions arose with Indigenous communities on the island but were easily resolved. There were also some tensions with non-Indigenous neighbours during the planning phase and soon after construction. Several interview participants alluded to an incident where a settler dentist threatened to deny treatment to a patient from M'Chigeeng because of the turbines. One participant recalled an encounter with a settler woman (see Box 12) that speaks loudly to the emotional responses sometimes triggered by wind turbines and brings the legacies of colonialism into the sphere of renewable energy.

4 Conclusions and Recommendations

This report summarized what the wind turbines mean for M'Chigeeng members, presenting interviews and survey results around the four themes of acceptance of the turbines; communication; ownership; and relationships. The results reveal strong aspirations for economic and cultural restoration. Combined with the pride of owning the turbines, these aspirations seem to be strong enough to temper the negative impacts of the turbines, such as visual disturbance and noise, and manage the inevitable internal conflicts. M'Chigeeng members generally remain attached to the idea of a brighter socio-economic outlook for the whole community and the perspective of financial benefits flowing from selling electricity. However, communication deficiencies and how benefits will be shared are at the forefront of members' concerns. Members repeatedly highlighted gaps in the communication process, from the planning phase to current operation, and are calling for transparent, comprehensive, and accessible information about the MERE project.

Box 13. Calling for open book

"They should have an open book policy, or, like, a transparent book… keeping documenting all the wattages and equivalent to money going out and coming in, and what it's bringing in, you know? So that people can track it coming in here into the Band office."
Interview participant

The 10th anniversary of the start of operation offers a fitting opportunity to regroup community members around the vision that undergirded the MERE project in the 2000s. Key goals of the project included generating revenue for the community to fund needed programs and infrastructure, while building capacity as a renewable energy generator – all in an effort to further assert sovereignty, self-sufficiency, and a hopeful future. As pointed out by one interview participant, dancing for settlers at powwows does little for M'Chigeeng First Nation. Yet, harnessing the full potential (social, cultural, and economic) of community-led initiatives like the MERE project can do a lot to support community revitalization and restoration. M'Chigeeng members support their MERE project and are also in favour of maintaining turbines on the land in the future. This underscores the importance of opening communication spaces in the community to discuss the project status and prepare the future that members want.

Report Annexes

- Band Council Resolution
- MARRC Ethics approval
- Interview guide
- Interview summary for participants
- Survey questionnaire

Appendix E. Curriculum Vitae

Name:	Carelle Mang-Benza	
Post-secondary Education and Degrees:	University Laval Quebec-city, Quebec, Canada 1992-1995 B.A.Sc.	
	University Laval Quebec-city, Quebec, Canada 1996-1997 M.Sc.	
	The University of Western Ontario London, Ontario, Canada 2018-2022 Ph.D.	
Awards:	AER Award (Collaborative Program Env&Sustainability)	2021
	Faculty of Social Science Alumni Graduate Awards	2019
	Michael Troughton Bursary	2019
Related Work Experience:	Teaching Assistant The University of Western Ontario	2017-2022
	Course instructor The University of Western Ontario	2021

Publications:

Mang-Benza, Carelle; Baxter, Jamie (2021). Not paid to dance at the powwow: Power relations, community benefits, and wind energy in M'Chigeeng First Nation, Ontario, Canada. Energy Research & Social Science, 82, 102301. https://doi.org/10.1016/J.ERSS.2021.102301

Mang-Benza, Carelle; Baxter, Jamie; Smith Fullerton, Romayne (2021). New Discourses on Energy Transition as an Opportunity for Reconciliation? Analyzing Indigenous and Non-Indigenous Communications in Media and Policy Documents. International Indigenous Policy Journal. https://doi.org/10.18584/iipj.2021.12.2.8641

Mang-Benza, Carelle; Jara, Victoria (2021). The summer of the flying fish. Film review. Alternatives Journal. https://www.alternativesjournal.ca/climate-change/environmental-justice/summer-of-flying-fish/

Mang-Benza, Carelle (2021). Discerning the Many Shades of Pink in the Energy Transition. The Gender Policy Report, 73. https://genderpolicyreport.umn.edu/many-shades-of-pink-in-the-energy-transition/?utm_source=gpr-digest&utm_medium=11nov21-digest&utm_campaign=mang-benza

Mang-Benza, Carelle (2021). Many shades of pink in the energy transition: Seeing women in extraction, production, distribution, and consumption sites. Energy Research and Social Science. https://doi.org/10.1016/j.erss.2020.101901

Mang-Benza, Carelle; Hunsberger, Carol (2020). Wandering identities in energy transition discourses: Political leaders' use of the "we" pronoun in Ontario, 2009-2019. The Canadian Geographer. https://doi.org/10.1111/cag.12610

Academic presentations:

Conference of the American Association of Geographers
2021-2022

- Feb 2022. Critical Perspectives on Climate Mitigation and Adaptation in the Global South *Making energy justice work for women in rural sub-Saharan Africa: A qualitative diagnostic from Benin, Senegal, and Togo*.
- April 2021. Energy and Environment Specialty Group. *Many shades of pink in the energy transition: Seeing women in extraction, production, distribution, and consumption sites.*
- April 2021. Indigenous Peoples' Specialty Group. *Mother Earth and (wind) power in M'Chigeeng First Nation: "There's no money in dancing for you at the pow wow".*

Preconference of the American Association of Geographers
2021-2022

- Jan 2022. Energy and Environment Specialty Group. *When the wind blows on powwow grounds: From ownership to acceptance of turbines in M'Chigeeng First Nation, Canada".*
- Jan 2021. Political Geography Specialty Group. *Wandering identities in energy transition discourses: Political leaders' use of the "we" pronoun in Ontario.*

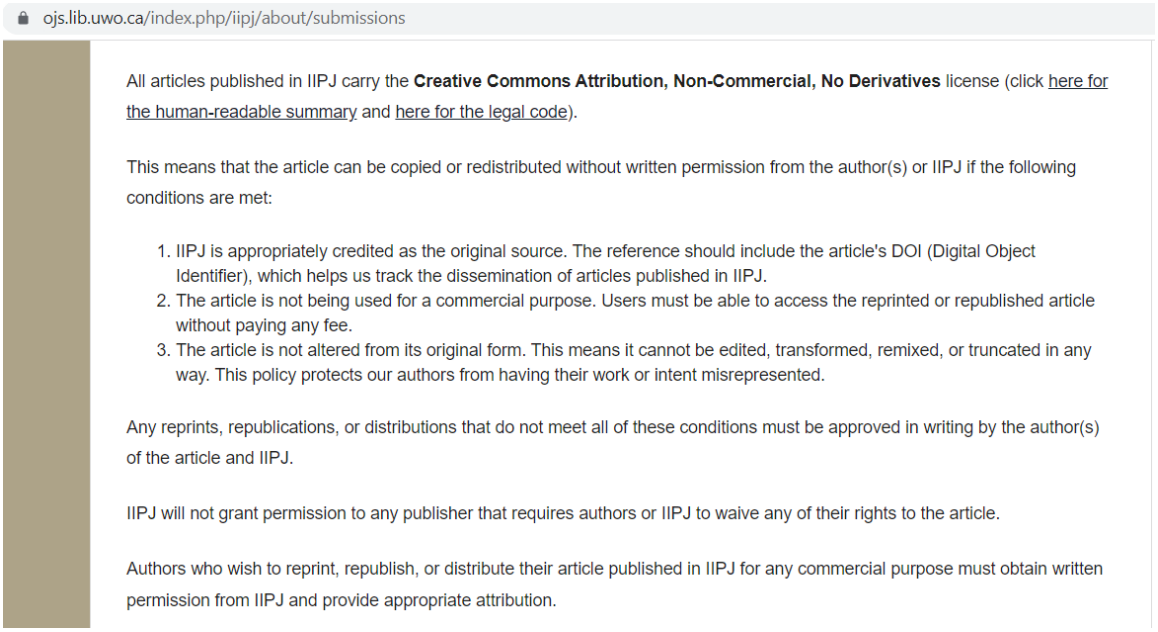
TransitionS Seminar Series. Managing & Assessing Transition Innovation Network
Nov 2021
An energy transition with so many shades. https://matin.hypotheses.org/61

Energy Geographies Research Group. The Royal Geographical Society
Oct 2021
So Many Shades in the Energy Transition! https://www.energygeographies.org/event-details/carelle-mang-benza-so-many-shades-in-the-energy-transition

Appendix F. Permission to use articles in thesis

Chapter 4 published as:

Mang-Benza, C., Baxter, J., & Fullerton, R. S. (2021). New Discourses on Energy Transition as an Opportunity for Reconciliation? Analyzing Indigenous and Non-Indigenous Communications in Media and Policy Documents. International Indigenous Policy Journal, 12(2), 1–27. https://doi.org/10.18584/iipj.2021.12.2.8641


ojs.lib.uwo.ca/index.php/iipj/about/submissions

All articles published in IIPJ carry the **Creative Commons Attribution, Non-Commercial, No Derivatives** license (click here for the human-readable summary and here for the legal code).

This means that the article can be copied or redistributed without written permission from the author(s) or IIPJ if the following conditions are met:

1. IIPJ is appropriately credited as the original source. The reference should include the article's DOI (Digital Object Identifier), which helps us track the dissemination of articles published in IIPJ.
2. The article is not being used for a commercial purpose. Users must be able to access the reprinted or republished article without paying any fee.
3. The article is not altered from its original form. This means it cannot be edited, transformed, remixed, or truncated in any way. This policy protects our authors from having their work or intent misrepresented.

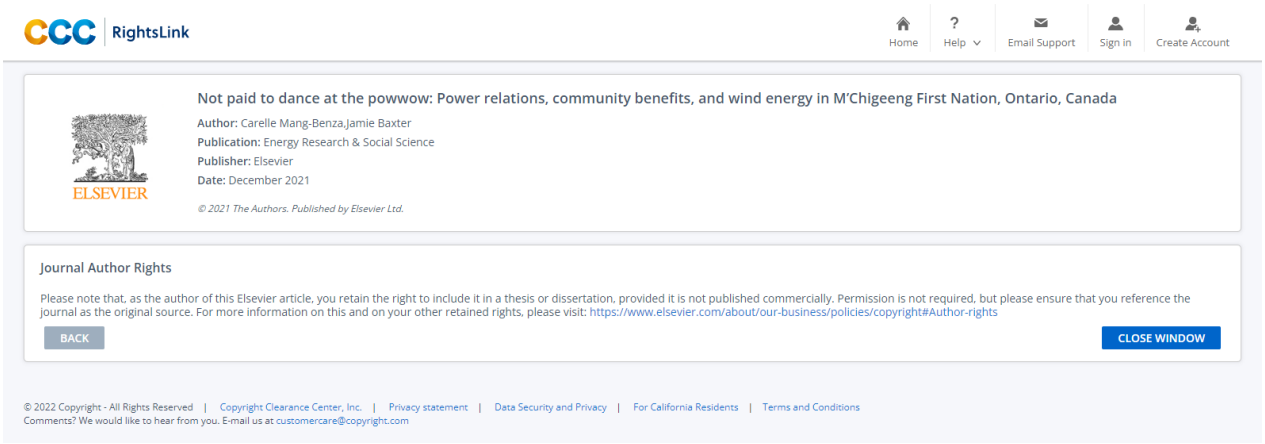
Any reprints, republications, or distributions that do not meet all of these conditions must be approved in writing by the author(s) of the article and IIPJ.

IIPJ will not grant permission to any publisher that requires authors or IIPJ to waive any of their rights to the article.

Authors who wish to reprint, republish, or distribute their article published in IIPJ for any commercial purpose must obtain written permission from IIPJ and provide appropriate attribution.

Chapter 5 published as:

Mang-Benza, C., & Baxter, J. (2021). Not paid to dance at the powwow: Power relations, community benefits, and wind energy in M'Chigeeng First Nation, Ontario, Canada. Energy Research & Social Science, 82, 102301. https://doi.org/10.1016/J.ERSS.2021.102301



Chapter 6 pending submission