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Contending With Equity Ownership In Indigenous Renewable Energy Projects In Alberta, Canada

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Abstract

Informed by the literature on energy justice and community-owned energy, this study explores perspectives on Indigenous-owned renewable energy in Alberta, Canada. Amidst a pro-oil political and economic environment, several Indigenous-owned renewable energy projects are underway in Alberta. From in-depth interviews with 22 key informants who develop, fund, and champion Indigenous-owned renewable energy projects, we explore perspectives on the meanings and significance of ownership and respond to the possibilities and challenges of Indigenous ownership. Specifically, we explore how Indigenous ownership is defined and understood, and examine the possibilities and limits of Indigenization within and beyond renewable energy. Results indicate that equity ownership is critical to rewriting legacies of disenfranchisement. Amidst these views we note important insights about the risks associated with ‘pilot project syndrome’ and the need to ensure that projects are not just community-owned but are also community-led. Results also indicate flexible perspectives on Indigenous engagement with the energy sector, indicating ongoing interests in renewable and non-renewable energy projects.

Keywords: Indigenous peoples, renewable energy, community energy, energy transition, just transition, Alberta

Faire face à la participation dans les projets autochtones d'énergie renouvelable en Alberta, au Canada

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Resumé

Informée par la littérature sur la justice énergétique et l'énergie appartenant à la communauté, cette étude explore les perspectives sur l'énergie renouvelable appartenant aux Autochtones en Alberta, au Canada. Dans un environnement politique et économique favorable au pétrole, plusieurs projets d'énergie renouvelable appartenant à des Autochtones sont en cours en Alberta. À partir d'entretiens approfondis avec 22 informateurs clés qui développent, financent et défendent des projets d'énergie renouvelable appartenant à des Autochtones, nous explorons les perspectives sur les significations et l'importance de la propriété et répondons aux possibilités et aux défis de la propriété autochtone. Plus précisément, nous explorons comment la propriété autochtone est définie et comprise, et examinons les possibilités et les limites de l'indigénisation au sein et au-delà des énergies renouvelables. Les résultats indiquent que les parts détenues sont essentielles pour réécrire l'héritage de la privation de droits. Parmi ces points de vue, nous notons des informations importantes sur les risques associés au « syndrome du projet pilote » et sur la nécessité de veiller à ce que les projets ne soient pas seulement détenus par la communauté, mais également dirigés par la communauté. Les résultats indiquent également des perspectives flexibles sur l'engagement des Autochtones dans le secteur de l'énergie, indiquant des intérêts continus pour les projets d'énergie renouvelable et non renouvelable.

Mots-clés : Peuples autochtones, énergie renouvelable, énergie communautaire, transition énergétique, transition juste, Alberta

1.0 Introduction

In Canada, Indigenous-led energy transitions are emerging amidst calls for a just transition, increasing recognition of Indigenous sovereignty, and an acknowledgement of the need to rebuild settler–Indigenous relationships. Indigenous communities across Canada are increasingly investing in clean energy initiatives, energy efficiency measures, and renewable energy projects that centre community members as decision makers, owners, and beneficiaries (Hoicka & MacArthur, 2018; Stefanelli et al., 2018; Walker et al., 2019). Although Indigenous-owned renewable energy projects are becoming more common across Canada, the desirability and feasibility of Indigenous equity ownership often varies across regions and communities with implications for understanding, promoting, and supporting Indigenous-owned projects. One common source of tension within these projects involves the distinction between ideas of Indigenous ownership and Indigenous leadership as it relates to energy projects. For example, Smith and Scott (2021) distinguish between sources of authority on decisions regarding community-owned projects. In some cases, project ownership is an outcome of legal arrangements within the Indian Act through Chief and Council. Yet, this legal ownership structure is not a guarantee of community support and community leadership in broader terms. These tensions are also accompanied by some Indigenous groups who seek to step back from investments in non-renewable energy projects, with a sense of urgency to engage in more sustainable energy futures. These priorities can contrast, however, with other Indigenous groups who seek opportunities for ownership and control of all energy projects that cut across their communities and territories. These contrasting positions are what some scholars describe as the ‘either–or’ of the “false binaries of Indigenous sovereignty and contemporary development” (Lowan-Trudeau, 2017, p. 601) that malign the more complex and contingent nature of Indigenous energy projects.

Given the advances in Indigenous community energy across Canada, along with the inherent tensions that accompany these developments, this study adds to our understanding of these tensions through an exploration of the Indigenous energy landscape in Alberta, Canada. In particular, we build on the work of Buss et al. (2021) who address Indigenous engagement in bioenergy, and Cameron et al. (2021) who highlight Indigenous-owned solar energy in northern Alberta. This study highlights the perspectives of 22 key informants on Indigenous-owned renewable energy in response to the following questions. First, how is Indigenous ownership defined and understood by those who are involved in the Indigenization of the energy sector? Second, what are the possibilities and limits of Indigenization within and beyond renewable energy? Through these questions, we seek to explore the ‘either–or’ dilemma articulated above, as it relates to the evolution of Indigenous energy.

1.1 The Promise and Pitfalls of Indigenous Renewable Energy Development

The idea of Indigenous renewable energy takes inspiration from fields of study that include decentralized energy (Boucher, 2020), community energy (McMurtry, 2018), and sustainability transitions (Kivimaa et al., 2021). The concept of community energy, in particular, highlights the importance of justice, drawing on themes such as: (a) distributive justice—how energy costs and benefits are allocated, (b) procedural justice—how decision-making occurs, and (c) restorative justice—addressing injustices caused by ongoing resource extraction (McCauley & Heffron, 2018).

These justice themes are germane to Indigenous communities that are engaging more deeply in the energy sector. Renewable energy projects can bring opportunities for reconciliation while securing reliable renewable electricity for Indigenous communities (Cambou & Poelzer, 2022). Yet there is increasing recognition of the “new kinds of injustice created by renewable energy” (Walker et al., 2021, p. 14). Examples in Alberta, across Canada, and globally portray renewable energy developed without regard for Indigenous rights that displace communities from their homelands, render landscapes unrecognizable, and perpetuate colonial systems of resource development in the name of renewable electricity generation (Baird et al., 2021; Finley-Brook & Thomas, 2011; Lawrence, 2014). Increasingly, the ‘idyllic’ portrayal of renewable energy as an inherently beneficial pathway to achieving a just energy transition is being scrutinized (Walker et al., 2021). This tension is articulated as the ‘dual energy justice challenge.’ Without considerations for justice and equity, the energy transition risks perpetuating the inequities of the very energy system it seeks to transform in the name of renewable electricity generation and climate action (Doyon et al., 2021; Healy & Barry, 2017; MacArthur & Matthewman, 2018; Walker et al., 2021).

In overcoming these potential challenges, the literature captures a series of motivations and opportunities associated with Indigenous-owned renewable energy development. Community-owned renewable energy projects are viewed as avenues through which Indigenous communities can gain independence and self-sufficiency both economically and in their energy use (Cook, 2019; Jaffar, 2015; Rezaei & Dowlatabadi, 2016). Indigenous renewable energy projects contribute to overall community economic development by generating a new source of revenue, enabling energy cost savings, and facilitating reinvestment into community development (Cook, 2019; Stefanelli et al., 2018). Indigenous ownership also represents an avenue for reconciliation between Indigenous peoples, colonial governments, and energy utilities (Campney, 2019; Hoicka et al., 2021; Savic & Hoicka, 2021; Scott, 2020).

Indigenous-owned renewable energy projects can take various forms including ownership by an Indigenous political organization (e.g., Band Council) or an Indigenous economic development corporation that can serve the direct interests of community members rather than shareholders. In addition to these forms of ownership, the degree of Indigenous ownership can range from majority to minority percentage ownership stakes (Hoicka et al., 2021). Of these typologies of Indigenous ownership and participation, not all are equated with community involvement, control, or buy-in to a project. Indigenous communities are dynamic, variable in their perspectives and priorities and comprised of many decision makers with a plurality of views on the design and development of community-owned projects. Furthermore, Indigenous-owned renewable energy projects exist within imposed settler colonial systems of governance that limit community-driven decision-making, and as such, even projects that are community-owned may lack true community input and control (Campney, 2019; Smith & Scott, 2021; Walker et al., 2021). Scott describes the “internal moral authorities,” (2020, p. 481) or Indigenous governance structures such as community organizations, social enterprises, and Elder’s councils that are informed by Indigenous legal systems and knowledges, that were eroded through processes of colonialism as community members became accountable to authorities external to and disconnected from communities. Similarly, Hoicka et al. (2021) find that current community energy projects lack representation of these moral authorities that bring a broader scope of community perspectives into project decisions. At the same time, Indigenous-owned power

production is one avenue through which communities are reasserting their agency to govern their own affairs, revitalizing community-led decision making and governance by traditional and contemporary moral authorities, which Scott (2020) describes as key to reconciliation.

Amidst these contested meanings of ownership, what emerges as significant is the opportunity for Indigenous-owned renewable energy to support community-led participatory modes of decision making. Campney (2019) finds that the degree to which a renewable energy project reflects the principles of community energy, particularly local control and participation in decision making, is also the degree to which a project may contribute towards reconciliation. Echoing these findings, Smith and Scott (2021) describe the ways in which a community-owned wind farm aligns with the principles of community energy, particularly community-led decision-making that incorporates elements of Anishinaabe law and commitments to future generations, where members raised concerns and made decisions informed by community needs and values.

As much as community energy projects are often the product of local initiatives, actors at the community scale, the state, and the private sector interact to create conditions which influence the development of community energy (Creamer et al., 2018). The role of central governments in particular can catalyse, inhibit, and shape community energy projects through funding mechanisms, and consistent policy positions that shape social norms and overall support for community energy (Creamer et al., 2018). Berka et al. (2020) point directly to factors which have impeded local community energy in Aotearoa, New Zealand from scaling up, including a gap in recognizing the socio-economic and environmental benefits of community energy, and lack of collective energy transition strategy that engages with community energy organizations. To facilitate scaling up, research shows that community energy would benefit from increased policy coordination and direction on ownership, through a national strategy. This strategy would involve building new narratives of community energy that communicate the socio-economic and environmental benefits of an inclusive energy transition, by highlighting notable trailblazer projects (Berka et al., 2020). Others emphasize the need for the co-creation of policies with Indigenous communities that are aligned with clear targets for Indigenous-owned power production, supported by long-term external funding or community-based entrepreneurship (Scott, 2020; Buss et al., 2021; Leonhardt et al., 2022). Creamer et al. (2018) also describe the increasing role of non-governmental intermediary organizations in mediating between community, state, and private sector and in supporting the networks that enable community energy projects to scale up beyond the local level.

1.2 Indigenous Renewable Energy in Alberta, Canada

Alberta is home to several precedent-setting Indigenous-owned renewable energy projects. The development of these projects gained momentum with the election of the left-of-centre New Democratic Party (NDP) that governed the province from 2015 to 2019. The NDP introduced Alberta's Climate Leadership Plan, an unprecedented provincial commitment to climate action and economic diversification, including programs to fund Indigenous-owned renewable energy (Government of Alberta 2018a; 2018b).

As part of the Climate Leadership Plan, the NDP introduced the Small Scale Generation Regulation, outlining the parameters for both community generating

units and small-scale generating units (Province of Alberta, 2020). Small scale generating units are defined in the regulation as exclusively using renewable or alternative energy. These units are intended to supply renewable electricity to the electricity grid or to an isolated or off-grid community and are limited in scale to the nameplate capacity of the interconnection point (Province of Alberta, 2020, p. 3). Projects at this scale are distinct from both micro-generation (≤ 150 kW–5 MW), also called self-supply, in which producers supply their own renewable electricity needs or receive credits for excess electricity sent to the grid, and from utility scale projects (≥ 5 MW) connected to provincial distribution or transmission grids. Community generating units are intended to demonstrate social, environmental, or economic benefits to a community that are outlined in either a community benefits agreement between the community and the power producer, or a community benefits statement where the community is the power producer and project owner (Province of Alberta, 2020). As defined here, a community group includes Indigenous communities, both a band as defined in the Indian Act or a Métis Settlement under the Métis Settlements Act (Province of Alberta, 2020). Examples of community generation projects in Alberta with Indigenous ownership are listed in Table 1, each with detailed plans to deliver benefits to the community group (see Table 1). More comprehensive maps of Indigenous renewable energy projects in Canada are available from organizations such as Indigenous Clean Energy (n.d.).

During their time in government, the NDP attracted private investments into three utility scale wind projects with Indigenous ownership in the second round of bidding for the Renewable Electricity Program, where eligible projects required a minimum 25% Indigenous equity ownership (Government of Alberta, n.d.; see Table 1). In February 2019, the government also awarded 20-year contracts to three solar projects co-owned by the Conklin Métis Local 193 to procure clean electricity with Indigenous ownership for its own operations (BluEarth Renewables, 2021; Table 1).

Table 1. *Examples of Indigenous Renewable Energy Projects in Alberta, Canada*

Project Type	Ownership	Project Status
Community Generation		
Neyaskweyahk Sundancer solar project (1 MW)	Owned by Neyaskweyahk Sundancer LP, a wholly owned subsidiary of Ermineskin Cree Nation	Energized March 2020. Phase 2 expansion to 2 MW approved by Alberta Utilities Commission (AUC)
Métis Crossing Solar Project (4.86 MW)	Partnership between the Town of Smoky Lake, Smoky Lake County, and the Métis Nation of Alberta (MNA); Owned by the Métis Economic Trade and Industrial Services Corporation (MÉTIS Corp.) which is wholly owned by the MNA	Under construction. Target energization date Spring 2023

Table 1 continued

Three Nations Energy Solar Farm (2.43 MW)	Owned by Three Nations Energy (3NE), an equal partnership between Mikisew Cree Nation, Athabasca Chipewyan First Nation, and the Métis Association of Fort Chipewyan; Power purchased by ATCO	Operational since January 2021. Addition completed July 2021
Utility-scale Generation		
Montana First Nation Solar Farm (4.6 MW)	Owned and operated by Akamihk Kanataskiy Ventures (AKV) and Green Arrow Akamihk of Montana First Nation	Construction completed September 2020
Renewable Electricity Program (REP) Round Two		
Buffalo Atlee Wind Farms Phases 1–4 (58 MW)	Partnership between Sawridge First Nation and Capstone Infrastructure Corporation on Phases 1, 2, 3; Fourth phase added in 2020	Will not achieve commencement of construction by the date set out in the terms of the Renewable Electricity Support Agreement, and requested early termination of the Agreement
Cypress Wind Power Project Phase 1 (200 MW) & Phase 2 (47 MW)	Partnership between Kainai First Nation and EDF Renewables Canada Inc.	Under construction
Stirling Wind Project (SWP) (113 MW) & Stirling Wind Project II (SWP II) (26 MW)	Owned by Stirling Renewable Energy LP (SRELPE); a partnership between Paul First Nation Renewable Energy LP and Stirling Wind Project LP (SWLP) (Potentia Renewables Inc. and Greengate Power Corporation)	Under construction
Provincial procurement with Indigenous co-ownership		
Hays, Jenner, and Tilley solar projects	Fifty-fifty shared equity ownership by Conklin Métis Local 193 & BluEarth Renewables	Hays and Jenner solar projects operational since January 2022. Tilley solar project approved by AUC mid-2022

2.0 Research Methods

The broader study, of which this article is one part, included a community research partner at Enoch Cree Nation (Maskêkosihk). We worked collaboratively with a research advisory council within the Nation on research questions, data collection, analysis and interpretation, and communicating the research within the Nation through the community newsletter. As such, this study is informed by the principles of community-based participatory research (CBPR), with attention to issues of respect, relevance, reciprocity, and responsibility (Castleden et al., 2012; Schnarch, 2004). With pandemic restrictions, however, research opportunities were limited within the Nation, and contingencies at that time involved broadening the study to key informants on Indigenous energy in Alberta. Given these changes to the research design, the research presented here is not as closely linked to CBPR, but we continue to emphasize anti-colonial approaches to research (Carlson, 2017) with an emphasis on elevating the voices of our research participants, identifying and reflecting on the historical and continuing legacies of colonialism and focusing on how our research can contribute to the broader project of Indigenous leadership and control of lands and resources across the country.

Key informants were selected based on the researchers' knowledge of individuals in the fields of community generation and Indigenous renewable energy. Recruitment was focused within Alberta, but also included individuals based in British Columbia and Ontario. The first author conducted an initial recruitment which was followed by referral sampling and an additional round of recruitment until a total of 22 key informants were interviewed.

Interviews were completed with (a) First Nation Councillors who championed community-owned renewable energy projects in Alberta; (b) representatives from Métis governance bodies; (c) the interim director of an Indigenous-led environmental advocacy group; (d) renewable energy advisors and developers; (e) individuals from the areas of non-profit, research, and public education; (f) grant organizations, (g) municipal administration, (h) academia, and (i) a public utility (see Table 2). Six of the 22 informants self-identified as Indigenous during the introductions of the interview and shared their community-specific knowledge and lived experience. All interviews utilized a semi-structured approach that supported relationship building and the emergence of personal narratives. Participants were asked to describe their project experience, their perspectives on energy transition in Alberta, and their views of Indigenous-owned renewable energy including benefits, barriers, ownership structures, and roles for partners and governments. Interviews were conducted one-on-one by the first author except for three group interviews. Interviewing with key informants was carried out from May to November 2020, and in keeping with the public health guidelines around the COVID-19 pandemic, all interviews were done by phone or video call.

Interviews were conducted with ethics approval from our institution (Pro00096655) with attention to informed and written consent by all participants. All participants received a copy of their interview transcript to verify its accuracy, and some interviewees took the opportunity to make changes to the transcription. The analysis of all interviews followed an iterative process of staying close to the text and returning to the transcripts often for multiple readings during the process of coding and categorizing data (Creswell, 2007).

Table 2. *Interview Participants Based on Organizational Affiliation*

Key Informant Categories	Participants (n)
First Nation Councillors (FN1, FN2)	2
Métis Governance Bodies (M3, M4)	2
Indigenous-led Environmental Advocacy (IEA5)	1
Renewable Energy Advisors and Developers (RE6, RE7)	2
Non-Profit, Research, and Public Education Organizations (O8, O9, O10, O11, O12, O13)	6
Grant Organizations (G14, G15)	2
City Administration (C16, C17, C18)	3
Academia (A19, A20)	2
Public Utility (U21, U22)	2
Total	22

2.1 Contending With Possibilities in Renewable Energy

2.1.1 Rewriting legacies of energy development. Participants viewed the significance of equity ownership in the context of past and ongoing harms of the current extractive energy sector. Several participants described lived experiences of harm to lands and communities in the regions of the Alberta oil sands and province-wide, as this Councillor describes how “some company could just go to Indian Affairs and ask, apply for a permit. And cut through the reserve” when establishing the provincial electrical grid (FN1). Amidst a legacy of ill-intentioned approaches to energy development, Indigenous equity ownership in renewable energy is viewed as a new and emerging opportunity. They share how through a Nation-owned project, their community is overturning that legacy in following a community-driven approach, describing how “we used a permit. To build our project that is 100% owned by the Nation. So we are the utility” (FN1).

Participants express the meanings and significance of ownership using the language of sovereignty, independence, self-reliance, and self-determination and illustrate how through ownership, Indigenous communities are building new legacies. For this

Councillor, ownership is an opportunity for their community to gain sovereignty over their energy systems, through self sufficiency and independence from utilities and governments: “Ownership meant control. Ownership meant independence in the future. And it gave us a track forward towards energy sovereignty in the community and moving away from the utility and municipality in the future” (FN2).

In the experience of this participant from a non-profit, motivations for ownership are linked to Indigenous communities “gaining back their rightful control of determining how their communities function from an energy perspective” (O10). This is echoed by this Councillor who describes that ownership is an opportunity for their community to be self-reliant on their own capacities and expertise in managing their resources.

There's so much opportunities in ownership rather than, [pause] what's been happening in the past, this sort of like, can we find an expert who can do this for us. You know, we need to be those experts and not always rely on outside supports. (FN1)

For others, goals for community-owned renewable energy to contribute to sovereignty and independence are no less important, and yet they are to some extent abstract, as this advocate describes that in their experience the opportunities of ownership are tied to more tangible social and economic factors.

What I hear most often people talking about, is what that project will bring in terms of opportunity. And those opportunities are interrelated to things like UNDRIP. But when you look at them on the ground, it's actually more tangible than that. In a social and economic perspective. (O12)

Several participants described opportunities for energy cost savings, a new and diversified revenue source, and reinvestment into community infrastructure and services such as youth programs and Elder care. This interviewee from a Métis governance organization describes how foundational this economic opportunity is for energy security and future growth.

There're so many more things that they can do when they're not spending all their money on making sure the power's on. When they know that their energy is going to be okay. And they're not paying an arm and a leg for power. (M3)

Through this renewed economic opportunity, ownership positions Indigenous communities in Alberta as active participants in the provincial energy sector, and equal beneficiaries of the new renewable energy economy. This solar developer describes that for the Indigenous communities they work with, “they see a lot of opportunity for economic development, for jobs and, for being a part of the new economy” (RE7). Some participants described the promise of economic participation and prosperity as a step towards reconciling harms. Others expressed skepticism, especially towards the term ‘economic reconciliation’ as used by the current provincial government, expressing the need for reconciliatory intentions to be followed up with tangible actions.

2.1.2 Decision making and community engagement. Participants describe that equity ownership is the mechanism through which communities retain control in decision-making and negotiating with other equity partners. From the perspective of this participant, “ownership puts you at a seat at the table. And ownership gives you decisions” (O11). This participant from an Indigenous-led organization describes that rather than developers approaching a community with a pre-determined project or “package already wrapped” (IEA5) the project approach should involve members in all key decisions.

Bring the people to the table and involve them so that they can be involved in all kinds of ways. Like the building of the project, creating the project, doing all the groundwork, all of the different aspects of a project, the First Nations would be involved in, and have say, and be helping to build this project. And, with that, it’s going to create other employment and other training for the people along the way. (IEA5)

While a project may be community-owned, if individual community members are disconnected from this decision making the project may not reflect local goals and see community buy-in. Some participants view that a more effective measure of the benefits of a community-owned project is by the depth of engagement and the ways in which community members are brought into decision-making. For this participant, community engagement is the starting point for how community-owned projects and “irrespective of ownership, community buy-in and engagement is number one” (G15). In the following section we illustrate member involvement throughout multiple phases of project development and highlight the perspective of a renewable energy developer working with Indigenous communities on approaching the responsibility of community engagement.

One Indigenous community leader described a renewable energy project that began by “talking to the community and seeing what actually has the most value” (FN2). Community-specific decision making involved meeting with Nation members, Elders’ senate, and community leaders to evaluate how the project aligned with the community goals. The participant describes that these early conversations with Nation members were an opportunity to respond to questions and concerns, and to build energy literacy and a deeper understanding of energy use in the community. They also describe the ease of decision making with other equity partner communities due to a shared consideration for future generations, and that “it was everybody making a decision for the children and for the grandchildren to come” (FN2).

One of the Indigenous Councillors describes how their decision making included the natural laws and relationships with the natural world that form the foundation of their worldview, and their efforts to “keep those teachings and apply them to our business. And to whatever we do. And including renewable energy” (FN1). This same Councillor also describes a creative approach to communicating a completed project among community members which lead to support for the project across generations, partnering youth and Elders together to create a series of short films that feature the Elders’ stories about the community with connections to the new community-owned solar project.

From a non-Indigenous perspective, a solar developer describes how engaging with and creating roles for community members on community-owned solar projects follows their commitment to the Truth and Reconciliation Commission's 92nd Call to Action, which they have used as the "guiding light" (RE7) in how they operate their business and work with Indigenous communities. The 92nd Call to Action urges the corporate sector to follow the UNDRIP as a reconciliation framework in their work with Indigenous communities through the three pillars of engaging in meaningful relationship building; ensuring equitable access to jobs, education, and long-term community benefits; and providing education and training for staff (Truth and Reconciliation Commission of Canada, 2015). Each of these pillars is evident as this developer describes their work engaging with community members during the development of this project, which including internal staff training, hiring a community liaison, holding solar 101 sessions, and training and employing community members long-term. For the solar developer, this approach to community engagement involves efforts to leave a lasting positive impact.

We were really able to build a stake, for those different groups, to really build some ownership over the project with those groups and some pride about what the community was doing and, but also, beyond that really just the fact we were able to connect youth with Elders in their communities and, document some of the life experiences of those Elders and tell their stories. It's, a bit of a legacy piece for those Elders and their families. (RE7)

These examples illustrate how ownership takes on added meaning, as more than a legal mechanism, but as a sense of ownership of and personal investment in the project. While a project may be owned by the Nation's economic development corporation, all members who were involved in the project may now feel a sense of pride in the steps the community is taking to realize their goals. Community-led decision making, positive associations with the solar project, and relationship building between Elders, youth, and developers have created a sense of ownership in the project among members who see their contributions reflected there.

2.1.3 Capacity building through network building. While several of the Indigenous community champions identified that entering the renewable energy sector presented them with a steep learning curve, they framed their experience as an opportunity to build their capacity. Community-owned projects are creating opportunities for project champions to develop skillsets and establish careers in renewable energy, to expand existing renewable energy projects, and undertake other non-renewable initiatives. One participant shares how small-scale solar installations on a community building and hunting cabins provided the foundation of knowledge and familiarity to develop a utility scale solar farm years later (IEA5). A single project can also generate the momentum to support a web of offshoot initiatives, and this Councillor describes how the solar farm was the jumping off point for future sustainability initiatives in the community.

It opened up a spider effect or like a web of, sustainable projects that are within our community now. With the food production facility, the wood

processing business that's going to be coming up, and in the future, if it goes ahead, a chicken farm for a protein-based diet and feedstock. (FN2)

Capacity and knowledge are increasingly being built and shared among a growing network of clean energy champions. Peer communities who have successfully executed a project become invaluable resources for other Indigenous communities looking to develop their own projects. This participant shared that through the visibility of their project and in creating a model of a unique ownership structure, “our community is a catalyst for other Nations to learn from” (FN2). Participants identified valuable opportunities for capacity building from a variety of sources, including peer-to-peer learning from community champions, non-Indigenous mentorship, formal networks such as the Indigenous Clean Energy 20/20 Catalysts Program and the former provincial Indigenous Electricity Technical Working Group, as well as examples where knowledge mobilization plans were built into project design.

2.2 Contending With Possibilities in the Broader Energy Sector

In contrast to the section above, another set of ideas within the interviews identified other ways of imagining and understanding the possibilities for Indigenous ownership. Some participants consider the value of ownership on a case-by-case basis, with full recognition of the risks related to funding, capacity, and navigating partnerships. One participant suggests that majority ownership may not always be the right model for a community or provide the most benefits. In their experience advising on Indigenous energy projects, they “don't think majority necessarily is the be all, end all. And I think that a community needs to understand what being an ownership partner actually entails. Specifically in terms of project financing” (O12). This energy advisor recommends that communities first consider their capacity to take on a majority ownership role. They outline that Indigenous communities entering into renewable energy partnerships can seek numerous opportunities beyond a majority equity stake, including employment, training, and a community benefits agreement, and with that foundation in place, advises: “Let’s learn, and let’s leverage this revenue that you're going to have to then get a bigger percentage next time. Or maybe a majority percentage” (RE6). Several participants recognize the key barriers that impede the adoption of Indigenous-owned renewable energy. They describe a discontinuity between communities who have a desire to enter or scale up their involvement in the renewable energy sector with provincial policy and funding opportunities that put serious constraints on the growth of Indigenous energy project opportunities.

2.2.1 Project funding. Participants highlighted challenges related to both the availability and type of project funding. One interviewee from a non-profit organization calls for “funding Indigenous-led community projects to its core, and programs that are really rooted in those values. It's key and necessary. There's just not enough funding” (O13). Grant funding is often isolated and does not account for necessary investments that may be adjacent to the project itself, such as infrastructure investments to support rooftop solar. This municipal administrator calls for “strategic investments that enable communities to participate equitably,” (C17) an approach that recognizes factors such as infrastructure deficits which are a manifestation of the systemic ways in which funds have been diverted from Indigenous communities. Seeing project development in this holistic way gives

communities a roadmap for investment, and what is needed is for grant funding to similarly take this holistic approach by funding all necessary aspects of project development. Grants as a funding mechanism are short-sighted in scope and oriented around a single project. This funder calls for new financing mechanisms to scale up and sustain the momentum of Indigenous energy projects.

The grants themselves were, as a funding mechanism were a great kind of catalyst, and a spark. But, all of these projects and communities are now looking to scale, and if that's the spark, what's the long-term fuel? For this kind of employment, for these kinds of projects. Because they can't just simply be grants year after year. (G15)

2.2.2 Energy policy instability—the Alberta example. One participant from the non-profit sector indicates the “biggest challenge bar none is territorial or provincial policy around energy,” and “if there's not the policy to support renewable implementation, your project's going nowhere, it becomes a shelf sitter” (O12). The influence of a dynamic policy environment is particularly evident in Alberta. After the 4 year tenure of the provincial NDP, in 2019 the province elected the UCP and in their first provincial budget, they scrapped programs through which many Indigenous-owned projects had come into fruition, including the Alberta Climate Leadership Plan. Nearly every participant identified the impacts of this new policy environment, with this director of a public education organization describing that “if you want to continue with community generation, the cancellation of those programs is close to fatal for these sectors” (O8). Without continuity in policy, energy transitions risk being characterized by “pilot project syndrome,” where a community's involvement may be limited to a single pilot project (A19).

You want to get past sort of what I like to call sort of pilot project syndrome, where you end up with a one-off project that looks great, and then you never sort of see the follow up to it. So it's kind of that long term strategy that I think is, needs to be in place. (A19)

Participants agree that “government programs can't come and go, they need to be long term and durational” (O10). Sustained momentum for Indigenous energy development would benefit from the establishment of long-term support frameworks in the form of base programming, funding, and targets to support renewable electricity generation.

While some participants expressed concern with the new government and the renewed attention to strengthening the oil and gas sector, many of the same participants also echoed a sense of practicality regarding the province's approach to energy. Their critiques of the current government were not necessarily about oil and gas but were aimed at the resistance to diversification, and the province “scrapping the playbook on renewable energy. And then going straight back a hundred percent full force into oil and gas.” (M3). Within these interviews we observe the perspectives of individuals both with lived experience of the harms of the energy sector and a recognition of the benefits it has created. Many Indigenous communities in Alberta have relationships with conventional energy players and seek to become equity owners in renewable as well as non-renewable projects. One Councillor

describes the desire be a part of the energy sector beyond a small percentage owner, and their vision for Indigenous communities as owners and investors in “every infrastructure in Alberta that goes through our traditional territories. Whether it’s oil and gas, or utilities, or transmission lines” (FN1). At the same time, relationships to the energy sector in Alberta are contentious for many communities, who may enter the oil and gas sector “because that was the option provided. Whether it be for jobs, or economic development” (IEA5).

3.0 Discussion

Through the findings of this study, we develop an understanding of what equity ownership in renewable energy can mean and present the perspectives of 22 key informants on the significance and challenges of equity ownership for Indigenous communities in Alberta.

3.1 Distinguishing Between Community Ownership and Community Leadership

Returning to the questions that guide this study, how is Indigenous ownership defined and understood by those who are involved in the Indigenization of the energy sector? Answers to this question reflect how ownership can help to rewrite harmful legacies of energy development and lay the foundation for economic reconciliation. The community-owned projects discussed here add a layer to our understanding of community ownership, where—beyond equity stakes—these projects build and maintain a sense of ownership and buy-in to the project through community-led decision making. There is a key distinction here in the difference between ownership and leadership. Projects that are *community-led* in these ways may offer more benefits and see more community support than projects that are simply *community-owned* and lack a clear path for what that ownership will mean for members. We find that this community leadership is maintained through significant roles for ‘moral authorities’ (Scott, 2020; Hoicka et al., 2021) and community-led decision-making processes through the presence of natural laws in project design and decision making; consideration for future generations; intergenerational engagement with Elders, knowledge keepers, and youth; and roles for governance bodies like an Elders senate. We also describe the role of developers in supporting this community-led decision making in grounding their work in the Truth and Reconciliation Commission’s 92nd Call to Action to the corporate sector, adding to findings by Walker et al. (2021). Opportunities for capacity building, knowledge-sharing, and mentorship from Indigenous and non-Indigenous clean energy leaders and “sister communities” (Buss et al., 2021, p. 13) is increasingly a promising outcome and path forward for the future success of Indigenous-owned renewable energy projects in Alberta (Buss et al., 2021; Jaffar, 2015; Ozog, 2021; Scott, 2020). The visibility of the growing number of Indigenous-owned renewable energy projects in Alberta and across Canada and the subsequent network of community champions has substantial value in building capacity among Indigenous communities to take on the role of equity owners and can lead to new narratives of success and norms of support as outlined by authors such as Berka et al. (2020).

3.2 Flexible Indigenous Ownership Arrangements

Returning to the second question in this study, what are the possibilities and limits of Indigenization within and beyond renewable energy? Among the perspectives represented in this study, there is recognition that each Indigenous community is distinct in their approach to taking on equity ownership. Indigenous communities in Alberta often evaluate multiple ownership arrangements in renewable and non-renewable energy projects as viable pathways toward the future they envision for their communities. This flexible approach to ownership reflects Wanvik and Caine's (2017) Métis 'strategic pragmatism,' in which they argue that Indigenous communities in northern Alberta take the opportunity to "creatively and proactively engage extractive industry developments on their traditional territories as strategic pragmatists" (p. 603). This idea of pragmatism highlights historical Métis commitments to the flexible and emergent aspects of community capacity and collective agency.

This kind of pragmatism is reflected in the emerging possibilities for offshoot and ancillary projects that are associated with the production of electricity and heat. These might include wood processing, farming and greenhouses to enhance local food security, district heating, and a range of other context-specific initiatives.

More flexible perspectives on ownership also call attention to the risks and responsibilities of equity ownership and depict challenges related to capacity, funding, and policy (Buss et al., 2021). Barriers to Indigenous ownership involve sustaining momentum to move beyond pilot project syndrome to see significant and transformative changes in communities, and to respond to the need for complete and just energy transformation—a reimagining of who has ultimate authority over energy policy and decision making, and who benefits. As others have found, short-sighted grant funding and erratic policy development has been detrimental to sustained momentum of Indigenous-owned renewable energy (Leonhardt et al., 2022). For communities who are pursuing energy transition, we find that a shared vision in the form of sustained funding and policy on the urgency of climate action and energy transition would enhance opportunity and stability for Indigenous communities in Alberta (Scott, 2020).

4.0 Conclusion

Indigenization of renewable energy involves close attention to who the energy system serves and who has ultimate authority over energy policy and decision making. The value of community energy is largely in this reimagining of energy systems oriented around benefits to a select few in positions of power and influence, and in positioning communities as not only consumers, but as energy generators, decision makers, and beneficiaries. This research contributes insights from individuals who champion, fund, and develop innovative Indigenous-led and owned renewable energy projects in Alberta. We contribute to the understanding of ownership through the lens of community energy. In particular we explore community-led participatory decision making as a pillar of ownership and as a means towards ensuring generational buy-in and widespread community benefits. When decision making places value on Indigenous knowledges and worldviews and has a role for community-specific methods of governance and engagement, Indigenous-owned renewable energy projects can be truly community-led rather than simply community-owned. To support Indigenous leadership in transitions there is a need to recognize the expertise within existing networks of community

champions and mentors doing the work of supporting Indigenous clean energy and bringing that expertise into program and policy design; and for partners, developers, and policymakers to continue to be guided by Treaty relationships, UNDRIP, and the Truth and Reconciliation Commission's Calls to Action. While the scale of change needed is great, Indigenous communities in Alberta are asserting their role as true project partners in Alberta's energy sector, and Indigenous-led and owned renewable energy projects are demonstrating the possibilities of a just transition and an energy sector that is democratically governed and owned.

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