



“Stretch and transform” for energy justice: Indigenous advocacy for institutional transformative change of electricity in British Columbia, Canada

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ABSTRACT

Transformative energy justice addresses root causes and legacies of inequality, centers voices and world views of historically excluded communities in the problem definition, decision making and transition processes. This study offers insights from a unique case of meso-level collective action by First Nations in British Columbia (BC), Canada, aimed at transformative electricity institutional change. We collate regulatory and advocacy text to characterise the range of proposed First Nation Power Authority models and their placement along a continuum of conformative to transformative energy justice. Interviews with knowledge holders from 14 First Nations offer insight into motivations behind transformative change and how it is shaped by historical injustice alongside practical community objectives around energy security, resilience, and community development. First Nations narratives of electricity transformation are aligned with the United Nations Declaration of the Rights of Indigenous People (UNDRIP) and with goals of self-determination and incorporate relational and regional approaches. These findings validate theoretical frameworks of transformational energy justice (Avelino et al., 2024; Elmallah et al., 2022). Much of the groundwork has been laid by the collective and the regulator, while new legislation has opened a window of opportunity to increase Indigenous participation and control in the electricity sector.

1. Introduction

Increasingly, there is a recognition of the need for radical, fundamental and multidimensional structural change to achieve significant emissions reductions and promote climate resilience (Hölscher and Frantzeskaki, 2020; McGregor et al., 2020). Transformation, or systemic change, is characterised as far-reaching economy and society-wide change in culture, worldviews, discourse, power dynamics, legislation, physical infrastructure, the rules prevailing in economic value and supply chains, and knowledge infrastructure, with new market entrants and new roles for consumers and communities (Avelino et al., 2019; Grin et al., 2010; Hoicka et al., 2025; IRENA, 2019; Rauschmayer et al., 2015; Smith and Raven, 2012). An increasing area of interest in the energy sector is community energy, in which collectives of citizens - as opposed to individual consumers - are engaged in a place-based clean energy initiative, to deliver a wide range of social, environmental and

economic co-benefits (Devine-Wright, 2019; Smith et al., 2016).

In Canada, the drive for decarbonization of transportation and heating sectors through electrification will require electricity grids to double or even triple in size from the current 145 GigaWatt grid (Dion et al., 2022). Rural areas and regions are becoming important locations of renewable energy generation (Balta-Ozkan et al., 2015; Naumann and Rudolph, 2020). As a result, regions, districts, and rural communities are increasingly engaging in a renewable energy transition, many viewing renewable energy resources as a potential local economic development strategy and part of a just energy transition (Hoicka et al., 2021a; Siciliano et al., 2021). Building renewable energy infrastructure in such a way that it allows for regional local economic development is an important emerging public policy issue of broad relevance to communities across Canada and globally (Hoicka et al., 2021a; MacArthur et al., 2020). Within research, policy, and practice there is a growing perspective that, if designed well, energy transitions can provide opportunities for citizen participation, local benefits, rural and regional

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Abbreviations

BC	British Columbia
BC Hydro	The British Columbia Hydro and Power Authority
DRIPA	Declaration on the Rights of Indigenous Peoples Act
EPA	Electricity Purchase Agreements
FNPA	First Nation Power Authority
FPIC	Free, Prior and Informed Consent
INAC	Indigenous and Northern Affairs Canada
IPP	Independent Power Producer
MOU	Memorandum of Understanding
NIA	Non-integrated Area
UNDRIP	United Nations Declaration on the Rights of Indigenous Peoples

development, social equity and justice in workforce transitions, and reconciliation between colonial governments and Indigenous people and Indigenous self-determination (Hoicka et al., 2021b; MacArthur et al., 2020; Stefanelli et al., 2019). However, there are a number of preconditions for communities and citizens to become full-fledged market actors engaged in the provision of electricity services, in turn allowing them to leverage energy markets and generate revenue streams for community development (Berka et al., 2025). These preconditions include pathways to market access, access to policy support mechanisms that make projects viable, legal frameworks and market regulation designed to encompass social enterprise, localised planning and facilitation, political alignment, leverage and access to resources, and access to relevant information via external networks (Bauwens et al., 2016; Berka et al., 2025; Morris, 2013; Savaresi, 2019).

Indigenous people in Canada belong to First Nations, Inuit, or Métis Nations or communities. Each Nation or community has a distinct history, culture, governance, worldview and relationship to the land. There is a long history of the negative impacts of energy and resource development projects on Indigenous Nations and their traditional lands (O’Faircheallaigh, 2013; Parlee, 2015). In settler colonial contexts such as Canada, decolonizing energy transitions through Indigenous-led renewable energy projects is considered an important element of a just transition (Bargh, 2012; Mang-Benza and Baxter, 2021; Rezaei and Dowlatabadi, 2016; Roberts et al., 2023; Stefanelli et al., 2019). Indigenous-owned community renewable energy can challenge the legacy of settler colonialism as it is a form of economic development with limited environmental and health impacts relative to historic economic opportunities provided to Indigenous communities (Chitsaz, 2022; Mang-Benza and Baxter, 2021; Yalamala et al., 2023).

Many First Nations located in the province of British Columbia (BC) see renewable energy development as a means to achieving Nation objectives such as producing electricity for community buildings, generating revenue and jobs in alignment with community values and priorities, contributing to energy self-sufficiency, and reducing dependence on diesel (Cook et al., 2017). First Nation ownership of renewable electricity projects as independent power producers (IPPs) that sell electricity to the grid, can help Indigenous Nations develop consistent and long-term streams of own-source revenue (Savic and Hoicka, 2023; Yunker, 2022; Zurba and Bullock, 2018, 2020), supporting their ability to rely less on colonial government financial support and improve prospects for self-determination (Hoicka et al., 2021b; Savic and Hoicka, 2023). Over half of the 203 First Nations in the province of BC are willing hosts of renewable energy projects (Cook et al., 2017). However, only 30 First Nations have operational projects in BC. Of the 78 operational projects belonging to First Nations, 42 sell power to the electricity grid (Cook et al., 2017). Renewable energy projects led by First Nations face a range of institutional, financial, and cultural barriers (Bullock and Zurba, 2017; Cook et al., 2017; First Nations Major Projects Coalition

and Mokwateh, 2024; Lovekin et al., 2021). In 2019, the procurement program that First Nations participated in was indefinitely put on hold (see Table 1 for details).

In this study, we articulate how a coalition of BC First Nations perceive the lack of institutional control at the regional scale as one of the key barriers to generating renewable energy for socioeconomic development and self-determination. One of the barriers to the involvement of BC First Nations in grid-connected renewable electricity generation projects has been market access; specifically the sporadic access to IPP contracts through BC’s monopoly electricity utility, BC Hydro, to allow for the sale and remuneration of the renewable electricity generated. On November 28, 2019, the Province of British Columbia (BC) passed the Declaration on the Rights of Indigenous Peoples Act (DRIPA) adopting aspects of the United Nations Declaration of the Rights of Indigenous People (UNDRIP) (Nichols and Morales, 2021). Within this context, First Nations in BC are embracing the implementation of UNDRIP by advocating for the creation of new economic avenues for First Nations via the electricity sector through the creation of a “First Nation Power Authority” (Lovekin et al., 2021). Various models of a First Nation Power Authority have been deliberated or proposed by the BC Utilities Commission, as well as by intermediaries of advocacy groups, First Nations led groups, First Nations and Tribal Councils.¹

In this study, we characterise the transformative potential of proposals for power sector institutional change by BC First Nations, through the lens of concepts and literature from transformative energy justice, and the role of intermediaries in facilitating community energy and far reaching or ‘transformative’ change processes (Avelino et al., 2024; Iakovleva, 2024; Iakovleva and Rayner, 2024). A growing literature shows that while the worldviews of Indigenous populations and First Nations are distinct, they tend towards an ethic of relationality, wholeness and connectedness and diverge significantly from those of colonial institutions and worldviews, including in issues of resource extraction and sustainability (Castleden et al., 2009; Velasco-Herrejón et al., 2022).

Socio-technical transitions literature has shown that the formation of advocacy coalitions, umbrella organizations, and joint initiatives known in the literature as ‘intermediaries’ has facilitated knowledge exchange and a unified voice for lobbying of enabling policies to overcome systemic barriers to community-led energy projects, enabling the development of community energy as a legitimate sector in its own right (Brisbois, 2020; Iakovleva, 2024; Van Der Schoor et al., 2016; Vernay and Sebi, 2020). Intermediaries that operate at the meso-level-across a range of communities often at the regional or national scale can help community energy initiatives to become more broadly adopted and embedded in society by influencing resource mobilisation, visibility of these initiatives, and shaping how single initiatives are transported and transformed beyond their original sites and configurations (Turnheim et al., 2018). Community energy actors often take pragmatic approaches to overcoming challenges and constraints through strategies between two ends: “fit and conform” strategies adapt to existing governance and sociotechnical market structures and supply chains, whereas “stretch and transform” strategies result in durable reconfigurations of discourse, practices, legislation, and physical and knowledge infrastructure of energy value chains, to support grassroot energy initiatives (Scharnigg and Sareen, 2023; Smith and Raven, 2012; Turnheim et al., 2018).

Several studies have documented the political power struggles towards the goal of Indigenous collective leadership in renewable energy in BC (Cook et al., 2017; Fitzgerald, 2018; Midzain-Gobin and McEvoy, 2024; Peng, 2024). In another part of this research program, we document the preconditions and benefits of renewable energy for some First

¹ Tribal Councils are defined by the Government of Canada as “a group of First Nations with common interests who voluntarily joined together to provide services to member First Nations” (Government of Canada, 2023a).

Table 1
Provisions for indigenous involvement in BC hydro energy procurement programs 2002–2024^a.

Year	Program	Mentions of Indigenous Nations in program documents
2002–2003	BC Hydro 2003 Green Power Generation Call	Follow-up report mentioned one project operated by a First Nation (Office of the Premier et al., 2003).
2004 to present	BC Hydro Net-Metering Program	As of 2023 BC Hydro proposed an engagement plan for the year to hear feedback regarding the program that includes Indigenous Nations (BC Hydro, 2023c).
2005–2006	BC Hydro 2006 Open Call for Tenders	Consultation, engagement and impacts on First Nations considered as part of risk assessment to project category and relevant to project eligibility but not a criteria.
2008–2010	BC Hydro 2010 Clean Power Call	First Nations offered the opportunity to comment on program design prior to the program launch (BC Hydro, 2006). Consultation, engagement and impacts on First Nations considered as potentially relevant to project eligibility but not a criteria – “BC Hydro may further consider some or all of the following criteria (which are not necessarily set out in order of relative importance)” (BC Hydro, 2008).
2008–2010	BC Hydro Bioenergy Phase 1 and 2 request for Proposals	No specific mention of Indigenous communities or First Nations in program design.
2008–2019	BC Hydro Standing Offer Program	Projects assessed for “adequacy of First Nations consultation” before offering electricity purchase agreements. guidelines for projects developed by First Nations are considered for eligibility (BC Hydro, 2016a).
2016–2019	BC Hydro 2016 Micro-standing offer program	“Eligible Projects must have First Nations or community involvement” . (BC Hydro, 2016b, p.4) Adequacy of First Nations consultation is considered for projects prior to an EPA offer. Projects required meaningful involvement of either First Nation or community groups for eligibility. A First Nation applying under the program must demonstrate beneficial ownership and active participation in the project by the Nation. Royalties or financial benefits from a developer to a nation are not considered involvement in the project. Projects involving community groups are assessed for adequate consultation of First Nations before offering electricity purchase agreements (BC Hydro, 2016b)
2024	BC Hydro 2024 Call for Power	First Nations will be involved in program design and the announcements say renewable energy is a path for reconciliation and economic development for First Nations Communities (Ministry of Energy, Mines, and Low Carbon Innovation, 2023) with a particular focus on a role for First Nations ownership in all projects (BC Hydro, 2023b).

^a The researchers were unable to locate provisions for First Nation involvement in BC Hydro Procurement Programs prior to 2002.

Nations in BC. This study centers the voices and worldviews of a coalition of BC First Nations in characterising barriers, structural constraints, approaches to decision making and transformative processes to allow participation and access to the benefits of renewable energy. To characterise the extent to which the coalition’s proposed First Nation Power Authority models follow a conformative or transformative approach, we draw on regulatory, policy, media, and advocacy text analysis and interviews with knowledge holders of First Nations in BC who have direct experience with renewable energy projects in their Nations, drawing lessons and learnings about transformative approaches to regional energy transitions that are relevant for other settler-colonial contexts and for community energy more broadly.

While intermediary strategies for community energy have been widely documented internationally, there is to our knowledge little documentation of community energy coalitions made up of historically excluded groups taking rights-based approaches to address root causes and legacies of inequality. Here, the starting premise is an appeal by First Nations to apply international legal frameworks of Indigenous rights that provide a political opportunity to pursue advocacy centred on the extent to which these rights are being neglected in the status quo. To date, there have been few opportunities for meso-level collective forms of leadership in renewable energy by Indigenous Nations (Cambou and Poelzer, 2022; Hoicka et al., 2021b). The proposals of Indigenous collective leadership in renewable energy and their underlying rationales offer learnings for just policy design and approaches to transformative energy justice elsewhere in Canada and internationally.

2. Distinguishing transformative versus conformative intermediation towards energy justice

Where the enabling preconditions for community energy do not exist, community-led energy initiatives often challenge existing practices, social relations and regulations. A rich literature documents barriers for community-led energy in relation to policy settings and legacy institutional arrangements designed for incumbent utilities (Berka and Dreyfus, 2021; Brummer, 2018; Judson et al., 2020; Mignon and Rüdinger, 2016; Oteman et al., 2014). The resulting power struggles and contestations over policies and regulations between advocates of community-led energy and established incumbent energy utilities has

been documented in a multitude of contexts globally, such as Ontario (Canada), the United States and France, including power struggles over the dismantling of policies that support community energy (Boucher and Pigeon, 2024; Brisbois, 2020; Greenberg and McKendry, 2021; Hess, 2016, 2018; Poupeau, 2020; Stokes, 2013).

2.1. Distinguishing “fit and conform” from “stretch and transform”

Many factors shape the extent to which community-led initiatives are subordinated by prevailing existing governance and socio-technical environment (“fit and conform”) or able to change it in ways that can favourably affect subsequent evolution of community-led energy development (“stretch and transform”) (Smith and Raven, 2012). These factors range from strategic coalition building within and across community energy niches to their ability to access and influence institutional changes, as well as broader regime and economy or society-wide change processes that may or may not create windows of opportunity for implementation of favourable institutional change (Berka et al., 2025). “Fit and conform” approaches are processes that make niche innovations competitive within unchanged selection environments, and can force a narrowing of values and focus on market competition, isolating or excluding original social and environmental values-driven and motivated actors in the process (Smith and Raven, 2012). For example, a community-oriented peer-to-peer service start-up in New Zealand was licensed and deployed by incumbent distribution networks, where their design and operation was conformed to narrow definitions of market value, and their ability to deliver benefits for communities was limited - and eventually dismantled when proven unprofitable (Berka et al., 2020). In contrast, “stretch and transform” approaches attract resources and create capabilities for institutional change making (Smith and Raven, 2012). For example, Dutch community energy organizations worked collectively at the regional level to strategically develop a community retailer to service their members collectively, transforming the value chain and market place for community energy generators in a context in which access to electricity supply licences was complex and beyond the capacity of single community organizations (Van Der Schoor et al., 2016). The result was a new hybrid form of energy company that combines cooperative and commercial mechanisms and drivers (De Bakker et al., 2020). However, the distinction between conformative

and transformative change is not always clear cut. [Scharnigg and Sareen \(2023\)](#) observe both conformative and transformative strategies working together to support the roll out of solar PV into energy communities in Portugal. The “fit and conform” strategies leveraged existing networks while “stretch and transform” strategies combined innovative business models to advance replicable prototypes that affected the market structure and enabled a broader diffusion of PV into energy communities ([Scharnigg and Sareen, 2023](#)).

2.2. Intermediary strategies toward “stretch and transform”

Across many contexts globally, intermediaries have emerged to facilitate and support community-led energy, playing a critical role in advocating and driving the enabling preconditions that can create, protect and nurture community energy niches within incumbent regimes. Intermediaries may build community capacity to develop community-led energy projects by aggregating knowledge and directly distributing financial, technical, and knowledge resources, skills training, and advice ([Warbroek et al., 2018](#)). For example, Local Energy Scotland provides toolkits and matches community projects to partners that can provide projects with the legal, technical or financial services they may need ([Local Energy Scotland](#)). Intermediaries can also alleviate barriers, frame and embed community-led energy projects into the institutional context by advocating, negotiating and lobbying with relevant stakeholders, including policy makers ([Warbroek et al., 2018](#)). Key to this is the intermediary’s ability to mediate across consumers, suppliers and regulators by spanning the knowledge, interests and language of these actors to address human and financial resource deficiencies, such as seed funding, financing permanent staff, access to capital funding, and unsupportive institutional settings ([Bird and Barnes, 2014](#); [Hargreaves et al., 2013](#); [Kivimaa, 2014](#); [Moss, 2009](#); [Seyfang et al., 2013](#); [Warbroek et al., 2018](#)). Intermediaries can also open up new opportunities for the adoption of community-led energy projects by enabling trials for new business models or technology applications and engaging in new ways to collectively overcome systemic barriers ([Bird and Barnes, 2014](#); [Lacey-Barnacle and Bird, 2018](#); [Van Der Schoor et al., 2016](#); [Warbroek et al., 2018](#)).

Intermediaries have some agency in influencing processes towards conformation versus transformation, but their agency is conditioned by the resources and opportunities available in any given selection environment ([Smith and Raven, 2012](#)). In jurisdictions where renewable energy deployment is dominated by regime actors, networks, narratives and associated governance, meso-level collective action is constrained by lack of organizational resources and capacity, limiting the support functions that intermediaries can provide ([Berka et al., 2020](#)).

Existing studies on transformative change primarily focus on participation of ‘prosumers’ or new actors in the energy sector, changes to supply chains and surrounding regulatory structures, but have to date not focused on historically excluded communities working towards transformative change.

2.3. Transformative energy justice

Energy infrastructure has a long legacy of social injustice, entailing uneven distribution of the beneficial and detrimental outcomes of energy development ([Tornel, 2023](#)). Renewable energy development has not been exempt to generating an uneven distribution of outcomes and injustices, and there is evidence that lower income households and Indigenous, Black, and People of Colour Households (BPOC) experience greater negative impacts of clean energy transition, in terms of energy production, energy poverty, access to clean energy technology, as well as policy impacts ([Bennear, 2022](#)). For this reason, the inclusion of communities in the distribution of benefits, participation in processes and procedures, and the recognition of historically excluded groups that have traditionally borne the negative impacts of energy projects has become an important area of research ([Hoicka et al., 2023](#); [Ravikumar](#)

[et al., 2022](#); [Sharma et al., 2025](#)).

Addressing energy injustice in energy system transformation requires creating alternative ways of doing, thinking, and organising while challenging, altering, and replacing existing power structures and institutions that (re)produce patterns of injustice and unsustainability ([Avelino et al., 2024](#); [Jenkins et al., 2018](#)). [Avelino et al. \(2024\)](#) integrate different fields of literature to conceptualise key aspects necessary to achieve transformative energy justice. The first aspect to transformative systemic change hinges on political struggle, both in institutional politics (pragmatic) and the political (antagonistic) ([Avelino et al., 2024](#)). Here, institutional and state-oriented politics are not considered sufficient for transformative energy justice because they limit the decolonial dimensions of radical transformative change ([Hellmann, 2023](#); [Tornel, 2023](#)). The second aspect is attention to power - the (in)capacity of actors to mobilize other actors, resources, and/or institutions to achieve outcomes - and the need to include different voices and worldviews in problem definition process, decision making and transition processes ([Avelino et al., 2024](#)). The third aspect is pre-figuration - the need to engage with critical and marginalised voices in the experimentation of alternatives ([Avelino et al., 2024](#)). Similarly, [Elmallah et al. \(2022\)](#) identifies themes within energy justice visioning documents authored by community and not-for-profit organizations as focused on (1) being place-based, (2) addressing the root causes and legacies of inequality, (3) shifting the balance of power in existing forms of energy governance, (4) creating new, cooperative, and participatory systems of energy governance and ownership, (5) adopting a rights based approach, and (6) rejecting solutions “that are carbon-centric, without attention or inclusion of political, economic, and social justice” ([Elmallah et al., 2022, p.9](#)).

Taken together, approaches to facilitate transformative energy justice create capabilities and mobilize resources for institutional change making processes that centre marginalised voices, worldviews and perspectives and work towards reconfiguring authoritative beliefs, worldviews and discourse, extending to resource flows, practices, physical and knowledge infrastructure, and rules prevailing in economic chains ([Avelino et al., 2024](#)), outlined in [Fig. 1](#).

3. Study context

3.1. British Columbia electricity institutions and infrastructure

Globally, many energy sectors with a longstanding legacy of large-scale hydropower remain highly centralised and exhibit infrastructural, institutional and discursive inertia towards decentralisation ([Berka et al., 2020](#); [Kooij et al., 2018](#)). The electricity sector in BC is unique in that it is dominated by a provincially owned and regulated monopoly utility, the BC Hydro and Power Authority (BC Hydro). BC Hydro is the main owner and operator of the province’s (mainly hydropower) generation, and of high voltage transmission and low voltage distribution networks, and is also the largest electricity retailer in the province, serving 95 % of the province’s population ([BC Hydro, 2022](#)). In 2022, the utility reported 12,204 MW of installed capacity, including 12,026 MW of hydroelectric generating capacity. BC Hydro also owns and operates an extensive network of transmission and distribution infrastructure including over 80,000 km of power lines and 300 substations ([BC Hydro, 2022](#)).

Political momentum to privatise parts of BC’s power sector gathered pace from 2010 onwards, later than many other jurisdictions. This required BC Hydro to reorient to source renewable electricity from IPPs and to provide opportunities for electricity generation by the private sector and third parties to achieve competition, job creation and accelerated investment in renewable energy ([Davidson, 2019](#); [Hoberg and Rowlands, 2012](#)). Nevertheless, the BC power sector remains characterised by a narrow scope of technology, lack of diversity of delivery models, and monopolisation by public ownership.

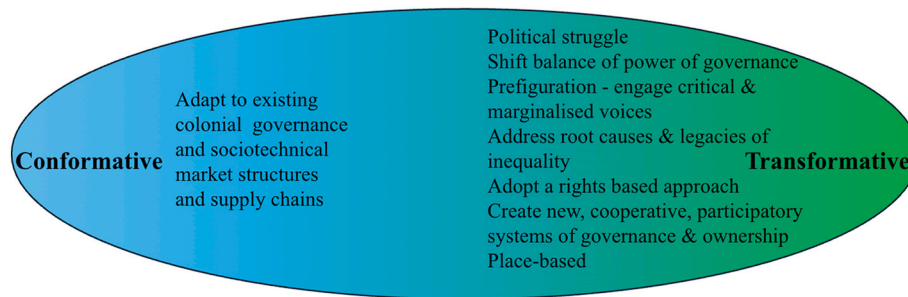


Fig. 1. The gradient of conformative to transformative energy justice (based on Avelino et al., 2024; Elmallah et al., 2022).

3.2. Established colonial legacy institutional structures limit First Nations participation in British Columbia's electricity sector

Mechanisms for accessing electricity markets such as procurement policies are a critical precondition for community-led renewable energy projects. Historically, BC government and BC Hydro priorities have significantly impacted whether BC First Nations could participate as IPPs in the electricity market. IPP procurement policies that are documented as early as 1988 (BC Hydro, 2023a; Davidson, 2019) rarely contained provisions for First Nations involvement (Table 1). The first procurement program requiring substantial involvement from First Nations was the 2016 BC Hydro micro-standing offer program for small-scale (>100 kW, <1 MW) clean energy projects. Sporadic procurement programs between 2013 and 2017 arose as a result of a shift in commitment by the government and BC Hydro away from IPPs in favour of large-scale publicly owned hydro-electricity (such as Site C²) (Davidson, 2019; Fitzgerald, 2018).³

A 2017 survey of BC's 203 First Nations received responses from 105 Nations and identified 78 operational renewable energy projects with ownership or involvement of First Nations, of which 42 were selling electricity to BC Hydro, and a further 48 projects were under development (Cook et al., 2017). 98 % of responding First Nations reported ongoing participation in renewable energy development or a desire to get involved in the renewable energy industry.

A "fit and conform" approach would see First Nations communities work within established colonial legacy institutional structures and procurement programs controlled by BC Hydro, the BC Utilities Commission (that regulates energy utilities in BC), and the BC government. A goal of "fit and conform" would both increase the share of ownership of renewable energy generation and demand management projects as well as the number of projects owned by increasing access to capital. This would require addressing the limited access to capital and the ability to

² The Site C dam is a \$16 billion, 1,100 MW hydroelectric dam on the Peace River in British Columbia. The project has been widely criticised for issues including the flooding of important agricultural lands and Indigenous cultural sites, environmental impacts, concerns around geotechnical instability, a lack of meaningful Indigenous consultation, the violation of Indigenous treaty rights, and cost overruns (Bakker and Hendriks, 2019; Cox, 2020, 2021; Gilchrist, 2017).

³ As this research was conducted, in 2023, BC Hydro announced a new call for power (BC Hydro, 2023b; Ministry of Energy, Mines and Low Carbon Innovation, 2024) and in 2024, selected nine wind projects providing nearly 5000 GW h per year increasing BC Hydro's supply by 8 % (Office of the Premier et al., 2024). Eight projects will have 51 % Indigenous ownership, while one will have 25 %, accounting for \$3 billion in First Nations renewable energy ownership (Office of the Premier et al., 2024). Additionally, the BC government announced a plan for \$36 billion of investment for community and regional infrastructure projects including transmission lines, upgraded generating facilities, and infrastructure to support high-growth areas to deliver clean electricity to consumers and related infrastructure with residential housing and transit electrification (Ministry of Energy, Mines and Low Carbon Innovation, 2024). Announcements are ongoing in 2025.

minimise risks of borrowing to a First Nation, a commonly documented barrier to Indigenous community involvement in renewable energy projects (First Nations Major Projects Coalition, 2019, 2024a; Krupa, 2012; Savic and Hoicka, 2023). For example, the First Nations Major Project Coalition has developed a range of resources for First Nations and governments about how to work with utilities and how to facilitate better access to capital (First Nations Major Projects Coalition, 2019, 2023a, 2024a, 2024b).

Taken together, the nature of procurement and the historical policy focus suggests that Indigenous engagement with energy across Canada has tended towards "fit and conform" strategies, characterised as working within existing institutional structures by forging partnerships with mainstream energy developers, developing their own unique business models of Indigenous economic development corporations as a bridge between First Nations and markets, and forging targeted financial mechanisms to enable investment (Hoicka et al., 2021b; Savic and Hoicka, 2023; Walker et al., 2022). However, there are strong indications that novel "stretch and transform" strategies that centre the voices of historically excluded communities are emerging in Canada. For example, in the Province of Ontario, the Wataynikaneyap Transmission Project "Watay Power" has been developed as a novel ownership structure in the form of a private partnership, where 51 % of an 1800 km transmission line that connects 17 remote communities to the power grid is owned by 24 First Nations and 49 % by private investors (Wataynikaneyap Power, n.d.).

3.3. UNDRIP and First Nations advocacy for electricity sector transformation

A number of developments suggest that transformative energy justice approaches along the dimensions described by Avelino et al. (2024) and Elmallah et al. (2022) have begun to emerge in BC.

First, understanding how transformative energy justice occurs requires understanding historical injustices, specifically, colonial power and governance and current rights based approaches proposed as transformative ways forward. The displacement and disempowerment of Indigenous people to control land and resources is the objective of settler colonialism (Whyte, 2018). First Nations are often located on reserves delineated by the colonial government that may not overlap with their traditional land or culture (Egan and Place, 2013; Hanson, 2009; Harris, 2002). The traditional territories of First Nations in BC have been infringed upon by the existing energy systems (BC Utilities Commission, 2020), illustrating an established pattern of resource and energy development that negatively impacts Indigenous Nations and their traditional territories (O'Faircheallaigh, 2013; Parlee, 2015).

The UNDRIP Act received royal assent on June 21, 2021 in Canada (Duhamel, 2022) affirming UNDRIP as an important source for interpreting Canadian law while declaring that the laws of Canada will be made consistent with UNDRIP (Duhamel, 2022). The UNDRIP Act sets out timelines for the government to create and implement an action plan "to achieve the objectives of the Declaration." (Duhamel, 2022). The Province of BC passed DRIPA on November 28, 2019 (Nichols and

Morales, 2021) adopting aspects of UNDRIP, focusing on enabling Indigenous self-determination and the right of Indigenous Nations and people to improve their economic and social conditions without discrimination (Fraser, 2019). Despite calls to action to all sectors in society in the Truth and Reconciliation Commission report, until recently, among the renewable energy projects in which Indigenous nations were involved, there were relatively few projects for which a nation had a controlling share of ownership, particularly for projects located on First Nations traditional lands (Hoicka et al., 2021b).

The implementation of UNDRIP and Free, Prior and Informed Consent (FPIC) for decision making about resource projects on Indigenous lands is widely considered as transformative as it shifts power from colonial institutions to Indigenous Nations by giving control to Indigenous Nations over which projects are pursued, how they are pursued, and the project outcomes (Scott, 2020). As such, the application of DRIPA in BC follows a transformative approach described by Elmallah et al. (2022), as a rights based approach, perceived as a way to address the root causes and legacies of inequality, shifting the balance of power in energy governance to create opportunities for place-based and participatory systems of energy governance and ownership.

In 2016, one BC First Nation challenged the existing electricity sector institutional structures by seeking to start their own electricity utility. In 2016, a limited partnership company with 51 % ownership by Beecher Bay First Nation, called Spirit Bay Utilities, filed an application with the BC Utilities Commission for an exemption to Section 88. Section 88 of the Utilities Commission Act allows municipalities (local colonial governments) in BC to operate and self-regulate electric utilities (BC Utilities Commission, 2020). Currently, five municipalities in BC exercise this right: Grand Forks, Nelson, New Westminster, Penticton and the District of Summerland (BC Utilities Commission, 2020). The exemption request was denied as the BC Utilities Commission found that the Nation did not qualify as a municipality, nor did the Nation qualify to be excluded from the jurisdiction of the BC Utilities Commission (BC Utilities Commission, 2020), demonstrating not only the discrepancies in how Indigenous Nations and non-Indigenous communities are addressed by colonial institutions, but their historical exclusion.

First Nations are formed and governed differently than municipalities, illustrating the many ways in which “settler colonialism continues to structure the broader set of relations in which renewable energy projects [...] are situated.” (Smith and Scott, 2018). In BC, municipal governments are established and governed by the provincial legislature as determined by the Canadian Constitution (Intergovernmental Affairs Government of Canada, 2021) whereas, though each First Nation community is unique, and may be governed in a number of ways including by communities’ own legal orders and traditions, they are for the most part also governed by colonial institutions such as treaties, the Indian Act, the Constitution and the extent to which UNDRIP and DRIPA are consistent with Canadian law (Duhamel, 2022; Scott, 2020; Smith and Scott, 2018). These laws and agreements affect First Nations rights, governance structures, their access to both traditional and unceded land claims, and their ability to borrow capital, which has historically limited involvement in the renewable energy sector (Krupa, 2012).

The BC Utilities Commission’s denial of Spirit Bay Utilities’ application raised questions of transformative energy justice within the BC Utilities Commission itself, about “whether First Nation utilities ought to be regulated differently under the *Utilities Commission Act*, and if special provisions may be needed” (BC Utilities Commission, 2020, p. 1). The BC Utilities Commission established an inquiry to explore the possibility of regulation of First Nations electric utilities in BC based on the understanding that preventing First Nations from participating in the clean energy economy undermines DRIPA which requires that governments ensure Indigenous communities have the opportunity for economic development (BC Utilities Commission, 2020). The final report advised that First Nations were lacking opportunity in the clean energy economy and that First Nations should be able to create their own utilities and power authorities and that Indigenous-controlled power projects should

be able to access transmission systems and sell directly to customers both inside and outside the borders of First Nation reserves or treaty lands. The report provided guidelines for how First Nations could own and operate utilities to provide electricity services on reserve land, how they could be regulated, and offered 35 recommendations towards their implementation (BC Utilities Commission, 2020). Although none of these guidelines have been formally adopted, the inquiry has provided support for advocacy for transformative energy justice in the British Columbian clean energy economy.

As will be described in Section 5 of this study, 30 First Nations members of the organisation Clean Energy BC moved to form the First Nations Clean Energy Working Group in 2017. Joining with other organizations, the coalition advised that provincial policy failed to capitalize on the willingness of First Nations and outlined the need to improve their policy framework to facilitate and encourage Indigenous involvement in renewable energy (Cook et al., 2017). This coalition took a pragmatic approach, pointed out differences in power and began to advocate for institutional transformation of the renewable energy sector through prefiguration— the engagement with critical and marginalised voices in the experimentation of alternatives. Taken together, the use of DRIPA to advocate for electricity sector change meets criteria for transformative energy justice (Elmallah et al., 2022) through an approach that: is place-based; addresses the root causes and legacies of inequality; aims to shift the balance of power in existing forms of energy governance, creating new, cooperative, and participatory systems of energy governance and ownership; adopts a rights based approach; and, rejecting carbon-centric solutions and does not pay attention to economic, economic, and social justice.

In what follows, we characterise how and why a “stretch and transform” strategy took hold to address some of the root causes of the problem, by sharing how marginalised and excluded voices are navigating electricity institutional change and aligning their efforts with a DRIPA rights based approach.

4. Methodology

The following sets out the methodological approach taken to characterise the extent to which the First Nation Power Authority models proposed by the coalition of First Nations follow a “fit and conform” or “stretch and transform” approach. This is supplemented with an analysis of the extent to which the knowledge holders of First Nations in BC who have direct experience with renewable energy projects in their Nations view the potential of the proposals to catalyse First Nations involvement in regional energy transitions.

4.1. Partnership research and funding

The ethics of conducting research with Indigenous people is a long standing and important area of scholarship that has led to shifts in policies governing research conduct (Bull et al., 2019; Bull, 2010). The current ethical standards for research with First Nations in Canada are outlined in Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans – TCPS 2 (2022) chapter 9: Research Involving the First Nations, Inuit, and Métis Peoples of Canada, which emphasises conducting research in partnership, emphasizing the building of good relationships (Government of Canada, 2023b).

There are many approaches to the design of co-creation of research for transformative outcomes (Chambers et al., 2021; Galende-Sánchez and Sorman, 2021; Rowan et al., 2024). Under ownership, control, access, and possession (OCAP) principles (The First Nations Information Governance Centre), First Nations have control over the data collection process, own any data collected about them, and have control over how this data is used.

This study was designed as co-created research between research partners that work directly with First Nations across BC—through Clean Energy BC and the New Relationship Trust—and the academic

researchers. Clean Energy BC and the New Relationship Trust hired the researchers through funds provided by the federal government, Natural Resources Canada's Clean Energy for Rural and Remote Communities Program, under the Capacity Building Stream funding program. The partners directed and controlled the research design, and were consulted and involved in each stage of the research. The research built upon a survey conducted by Clean Energy BC in 2021 of 72 First Nations, and was designed to support advocacy for First Nations in the renewable energy sector. Specifically, the aim was to design and conduct research that focused on the impacts and benefits of renewable energy to First Nations in BC.

4.2. Assessing conformative or transformative dimensions of coalition proposals

The first step in better understanding the coalition's approach to transformative energy justice was to identify the models of a First Nation Power Authority that were proposed and deliberated by the coalition of First Nations and organizations. These models were identified in organising and advocacy documents and events produced by the coalition, such as conference presentations and reports (Keppel Gate Consulting, 2021; Lonechild, 2023; Lusztig, 2023a, 2023b). Although the BC Utilities Commission is not part of the coalition, their report is often cited and recommended as reading by the coalition as a helpful resource in providing insights about the application and implementation of these models. The second step in applying the conceptual framework to the analysis of the proposed First Nation Power Authority models was to analyse the models for their characteristics and considerations, whether examples of these models were existing or hypothetical, and finally, which aspects of implementing the First Nation Power Authority model conformed to the current or practiced market structures and regulations ("conformative") and which aspects of implementing the model required institutional change in the form of changes to regulation and/or markets ("transformative").

4.3. Interviews

Narratives from knowledge holders with direct experience with renewable electricity projects and the industry provide additional perspectives, context and worldviews around the motivation and design of the proposed transformative approaches. Semi-structured interviews with First Nations knowledge holders helped characterise the perspectives of First Nations on the challenges and motivations to produce renewable energy, and the worldviews underpinning these perspectives. In total, 20 interviews were conducted with members of 17 First Nations (2 participants from one Nation), 1 organisation and 1 consultant. Participants and Nations were asked whether they consent to their data being included in peer-reviewed research. 17 of the 20 interview participants consented to peer-reviewed research, and were included in this analysis (including 14 Nations, 1 organisation, and 1 consultant).

4.3.1. Recruitment

Interview participants were recruited through Clean Energy BC by inviting participants of the previous research. The researchers presented the research project at the First Nations Energy Summit, organised by Clean Energy BC, inviting participants to an on-site interview during the event or to schedule an interview on a later date.

4.3.2. Ethics

The ethics process was two-tiered, in which the researchers sought consent from both the Nation, according to the Nation's own protocols, as well as from the interview participant. Some First Nations have an ethics staff, others rely on elected officials for consent and it is different in every First Nation. First Nations and participants had the option to

waive anonymity. Once analysis of all data was complete, the collated data for each participating First Nation was returned to the Nation in accordance with the principles of OCAP ([The First Nations Information Governance Centre](#)).

4.3.3. Instrument design and process

The interview was semi-structured, with questions informed by existing literature, impact evaluation materials, and existing interview instruments to assess the impacts of First Nation renewable energy projects (Berka, n.d.; Clean Energy BC, n.d.; Savic and Hoicka, 2021) (see supplementary materials). Participants were asked about their personal involvement and motivation in the project, how the project came about and evolved in the community (challenges, turning points and milestones), how the community was involved, and critical partnerships and support. The interviews also asked participants about the benefits and impacts that the community may have experienced as a result of the project, how the project changed or benefitted the community, and the wider influence projects may have had on the regional or national renewable energy context, and allowed for the discussion of critical barriers communities face in the electricity sector preventing the development of new or further projects.

Interviews were conducted between December 2, 2022 and March 29, 2023. Interviews with Indigenous Nations should be inclusive and accommodative of Indigenous culture, often in-person, conversational, relational, and land-based (Phatshwane, 2024). The researchers were directed by the partner organisation to conduct interviews virtually, as had been done during the earlier phase of the research that was conducted during the pandemic. The three researchers who conducted interviews each had past experience and training in conducting interviews with Indigenous participants in a research context. Interviews were conducted and recorded over Zoom or in-person in a hotel boardroom at the Clean Energy BC First Nations Energy Summit. Interviews were typically between 1 and 1.5 h in length.

Transcripts were emailed to the interview participant to confirm content, and to provide feedback. Where anonymity was not waived, all identifying information (location, names) were removed from the analysis and the Nation was renamed with a number (eg. "Nation #1").

Interview participants were asked to share any additional documents with information about their Nation's energy projects. The documents shared included organisation and project websites and reports, legal reports, and other media (such as videos). These additional documents were analysed and used to supplement interview data.

4.4. Coding & analysis

Codes were used to analyse all transcripts and 5 additional documents including a Community Energy Plan, presentation decks, reports, videos, and summary documents using qualitative coding software. Code definitions were developed through consensus on interpretations and definitions between two researchers, and were based on the questions from the interview templates, organising responses following themes such as high level barriers, motivations, and impacts in the literature, with room to adapt and add codes based on the interview data.

Coded excerpts for the interviews with were organised into summary tables compiled for themes such as motivations for renewable energy, motivations related to sovereignty or DRIPA, institutional and actor barriers, institutional support, and specific experiences with the incumbent utility. Interviewee quotes were in some cases paraphrased to clarify meaning for analysis. As participants were asked to discuss their Nation's energy projects and received approval from their Nation to do so, quotes reported in this analysis are attributed to their respective First Nations rather than participants themselves.

Table 2
Coalition organizations.

Organisation	Description
Clean Energy Association of BC	The Clean Energy Association of BC, otherwise called Clean Energy BC, is a not-for profit organisation whose mission is to promote the development of a cost-effective clean energy economy by assisting the manufacturing, supply, and service industries that shape clean energy production in the province of BC by advocating for responsible and viable power generation, transmission, and management resources (Clean Energy BC, 2023).
New Relationship Trust	“The NRT was established in 2006 through the enactment of the New Relationship Trust Act, Bill 11–2006 and was capitalised with an investment of \$100 million from the Province of B.C. as an outcome of a Transformative Change Accord Agreement (the “Accord”) signed on November 25th, 2005, between the First Nation Leadership Council (comprised of British Columbia Assembly of First Nations, First Nations Summit, the Union of BC Indian Chiefs), the government of B.C., and the government of Canada ...The purpose of the New Relationship Trust is to provide resources to assist First Nations to build their own capacity to participate in the processes and activities envisioned by, and that evolved from, the New Relationship between the Government of B.C. and First Nations in B.C. by enhancing First Nation governance, leadership and institutional and human resources capacity to address social, cultural, and economic needs and priorities. These include, shared decision making, land use planning and resource management, revenue and benefit sharing, community planning and consultation and other interactions” (New Relationship Trust, 2023).
The Pembina Institute Renewables in Remote Communities	The Pembina Institute is a charity and think-tank that seeks to advance the development of a prosperous clean energy future in Canada through policy solutions (Lovekin, 2023). Pembina’s Renewables in Remote Communities program supports communities that are both remote and Indigenous to pursue energy sovereignty and independence to transition off diesel and towards clean and renewable energy (Pembina Institute).
First Nations Power Authority	The First Nations Power Authority (FNPA) is a non-profit, membership-based corporation that advances Indigenous power generation projects through a streamlined process to SaskPower, the provincial monopoly for transmission, distribution, and retail of electricity. All First Nations in the province are eligible for membership and can benefit from a memorandum of understanding signed between the Government of Saskatchewan and the FNPA designating that First Nations power producers use the FNPA as the first point of contact for any power project proposals for the incumbent utility SaskPower (SaskPower, n.d.).
Nuu-Chah-nulth Tribal Council	A tribal council is a group of First Nations with a common interest who work together to provide services for their members (Government of Canada, 2023a). Nuu-Chah-nulth Tribal Council is a not-for-profit society that provides a wide variety of services and supports to fourteen Nuu-chah-nulth First Nations with approximately 10,000 members. The First Nations include: Ditidaht, Huu-ay-aht, Hupacasath, Tse-shaht, and Uchucklesaht, Ahousaht, Hesquiaht, Tla-o-qui-aht, Toquaht, and Yuu-cluth-aht, Ehattesaht, Kyuquot/Cheklesah, Mowachah/Muchalaha, and Nuchatlaht Nations (Nuu-Chah-Nulth Tribal Council, 2022 ; Nuu-chah-nulth Tribal Council, n.d.).
First Nations Clean Energy Working Group	Coalition of 30 First Nations members of Clean Energy BC working to advance Indigenous leadership in clean energy in the province of BC.

5. Results and discussion

5.1. British Columbia First Nations coalition address power and prefiguration

A coalition of First Nations and organizations emerged in BC ([Table 2](#)) to provide leadership and structure in support of First Nations to collectively self-organise. The coalition included the First Nations Clean Energy Working Group, the New Relationship Trust, the Pembina Institute’s Renewables in Remote Communities (RIRC) Program, and the Nuu-Chah-nulth Tribal Council that represents 14 First Nations in BC, eventually joined by the First Nations Power Authority that originated in Saskatchewan, another province in Canada.

This coalition raised concerns regarding the lack of access for First Nation involvement in clean energy opportunities for First Nations in BC. Starting in 2017 and 2020, the Working Group and coalition began producing studies and discussion papers ([Cook et al., 2017](#); [Keppel Gate Consulting, 2021](#); [Lovekin et al., 2021](#)). The First Nations Clean Energy Working Group began organising First Nations Energy Summits, annual in-person gatherings of workshops and policy dialogue sessions for communities, governments, organizations and businesses working to advance First Nations participation in the renewable energy sector in BC.

The coalition developed an argument for creating and implementing a new policy framework that could align the goals of DRIPA with the provincial government’s climate plan (CleanBC) targets, focussed on addressing looming electricity supply shortages while simultaneously creating opportunities for First Nations in BC to provide leadership in the renewable energy sector under the rights afforded to First Nations under UNDRIP and DRIPA ([Lovekin et al., 2021](#)). A report commissioned to advance the interests of First Nations in renewable electricity through the establishment of a “First Nations Power Authority” ([Keppel Gate Consulting, 2021](#)) was used to develop a public-facing advocacy report ([Lovekin et al., 2021](#)). The advocacy report identified a shortage in the province between planned electricity supply and electricity demand by

2030 between 10.9 and 19.1TWh ([Lovekin et al., 2021](#)), with potential that electricity would be imported from the United States, and result in stronger regional competition for electricity. The coalition estimated that offering contracts to First Nations for 50 % of the generation required to meet the up to 19.1 TWh supply shortage would attract over \$8 billion in investment to First Nations and double the size of the First Nation renewable electricity sector ([Lovekin et al., 2021](#)). Referencing the report by the BC Utilities Commission, the coalition argued that “The establishment of a First Nation Power Authority in B.C. will build expertise, capacity, and policy advocacy experience among First Nations. All are critical to advancing First Nations energy sovereignty, economic reconciliation, and providing crucial input to provincial energy policy [...]. A First Nation Power Authority will bridge new energy policies in which First Nations act as broker and seller, and advocate for more aggressive energy policies in B.C.” ([Lovekin et al., 2021](#), pp. 13–14).

5.2. First Nation Power Authority models

The coalition proposed and debated six potential models for a First Nation Power Authority: 1) Capacity Building Point of Contact, 2) “Put” Contracts, 3) Industrial Interconnection, 4) “Golden Ticket” Opportunities, 5) Retailer or “Wheeling” Agreements, and 6) Regional Vertically Integrated Power Authority. The models vary in both complexity and in the roles played by the First Nation Power Authority. The characteristics, conformative and transformative dimensions of each model are described in detail along with examples in [Table 3](#). The elements of the model that conform to existing practices are considered the “conformative” dimensions, whereas the elements of the model that require changes to regulation and law are presented as “transformative” dimensions. The models are positioned in [Fig. 2](#) according to the extent to which they are conformative or transformative.

The Capacity Building Point of Contact model requires only conformative dimensions, and is considered the most “fit and conform”

Table 3
Conformative and transformative dimensions of proposed First Nation Power Authority models.

Proposed and Deliberated Model Characteristics and Considerations ^a	Examples	Conformative and Transformative Dimensions of Models
<p>Capacity Building Point of Contact Bridges gaps and leverages project development expertise, network of industry experts, and technical advisors to evaluate and develop projects resulting in increased economic benefits for First Nations (Lonechild, 2023). Works with incumbent utilities to promote Indigenous projects (SaskPower, n.d.). Meets the need for streamlined processes to increase power (SaskPower, n.d.)</p>	<p>Existing BC Indigenous Clean Energy Initiative provides support and capacity-building funds to First Nations for planning and implementation of clean-energy projects (Ministry of Energy, Mines and Low Carbon Innovation, 2023). New Relationship Trust administers BC Indigenous Clean Energy Initiative, supports capacity building for advocacy (New Relationship Trust, 2023; 2021). Advocacy for opportunities, policy change provided by CEBC, First Nations Clean Energy Working Group, First Nations Major Projects Coalition (FNMPC)^b, Pembina Institute Renewables in Remote Communities (RiRC). Conferences organised by CEBC (First Nations Energy Summit) and Pembina Institute (RiRC Conference). First Nations Power Authority (FNPA) expanding from the province of Saskatchewan to serve BC First Nations to support the development of renewable energy projects (Lonechild, 2023).</p> <p>Hypothetical Strategies to build First Nation capacity in all aspects of energy systems (BC Utilities Commission, 2020).</p>	<p>Conformative Dimensions The BC government could provide additional financial support to organizations to build Indigenous capacity in the electricity sector (BC Utilities Commission, 2020). Increase First Nation representation at the electricity regulator, such as Indigenous people in advisory, staff, and Commissioner roles, to build Indigenous capacity in utility regulation and remove regulatory barriers (BC Utilities Commission, 2020).</p>
<p>“Put” Contract Agreement that grants a FNPA representing numerous First Nation IPPs the right, but not obligation, to supply electricity to BC Hydro according to specified terms and conditions (Keppel Gate Consulting, 2021). A portion of new demand be set aside to create opportunity for First Nations (Keppel Gate Consulting, 2021). Terms of the put agreement developed to meet the needs of BC Hydro for price, volume, technology location (Keppel Gate Consulting, 2021). Provides consistent demand to attract capital for First Nation investment in developing electricity projects (Keppel Gate Consulting, 2021).</p>	<p>Existing As of 2023, BC Hydro has 125 Electricity Purchase Agreements to deliver over 18,800Gw/h annually (BC Hydro, 2023a)</p> <p>Hypothetical First Nation IPPs make a notional delivery to the First Nation Power Authority which delivers electricity to BC Hydro according to the put agreement. FNPA would then make payments back to the First Nation IPPs (Keppel Gate Consulting, 2021). A First Nation seeking to develop a renewable energy generation plant (e.g. run of river, wind) on its territory can seek an EPA with the incumbent utility rather than consume the produced energy themselves (BC Utilities Commission, 2020, p. 25).</p>	<p>Conformative Dimensions All services would have to meet existing Mandatory Reliability Standards (BC Utilities Commission, 2020). Historically, electricity sold to BC Hydro has been obtained through both Clean Power Calls and the Standing Offer Program (BC Utilities Commission, 2020).</p> <p>Transformative Dimensions Identification or creation of a regulatory body for Indigenous utilities (BC Utilities Commission, 2020). Establish purchase prices paid to IPPs, and determine whether subsidies are necessary, if so, who should cover the cost of subsidizing the EPA price (BC Utilities Commission, 2020).</p>
<p>Industrial Interconnection Single Nations or small groups of Nations create and operate connection infrastructure (transmission lines). This could be in-system or involve building beyond the BC Hydro grid (i.e., “edge of system”) to allow remote industrial facilities to access the BC Hydro grid (Lusztig, 2023a; 2023b). Industrial customers must agree to be serviced by a new operator and potentially a new regulator (Lusztig, 2023a). Industry and regulatory reaction have been generally supportive (Lusztig, 2023a). No need to create a complex entity up front (Lusztig, 2023a). Allows First Nations to attract investment from developers looking to take advantage of allowed opportunities through a partnership (Lusztig, 2023a).</p> <p>Local or Regional “Ticket” Opportunities FNPA receives advantages through regulatory, commercial, and system “Golden Ticket” opportunities (Lusztig, 2023a). Provides First Nations with a unique opportunity that allows them to earn economic value on their own terms (Lusztig, 2023a). Provides broader opportunity than the interconnection model while much simpler to develop (Lusztig, 2023a). No need to create a complex entity up front (Lusztig, 2023a). Allows First Nations to attract investment from developers looking to take advantage of the allowed opportunities through a partnership (Lusztig, 2023a).</p>	<p>Existing Wataynikaneyap Transmission line in Province of Ontario, 24 First Nations own 51 %, private investors own 49 % (Lusztig, 2023b).</p> <p>Proposed: Co-ownership of the North Coast Electrification transmission line between BC Hydro and First Nations (Lusztig, 2023b).</p> <p>Hypothetical The Indigenous government of a territory is the owner/operator and regulator of an electric distribution utility in this territory. It subsequently acquired all transmission assets on its territory, including the transmission lines and transformer stations from which its distribution utility takes service (BC Utilities Commission, 2020, p. 26).</p> <p>Hypothetical Designated procurement opportunities for First Nations to sell power to BC Hydro (Lusztig, 2023a). Use of the transmission system for wheeling power to specific customers such as First Nations, industrial customers, or for export (Lusztig, 2023a). A designated opportunity for a First Nation to capture benefits for First Nations from BC Hydro’s large dams that have infringed First Nations’ traditional territories (Lusztig, 2023a). Premiums for decarbonization initiatives in First Nations and remote communities (Lusztig, 2023a).</p>	<p>Conformative Dimensions All services would have to meet existing Mandatory Reliability Standards (BC Utilities Commission, 2020). Must cover the cost of connecting to existing transmission or distribution infrastructure (Lusztig, 2023b).</p> <p>Transformative Dimensions Identification or creation of a regulatory body for Indigenous utilities (BC Utilities Commission, 2020). Regulatory change to direction 8 over access and ownership of transmission and distribution lines (BC Utilities Commission, 2020).</p> <p>Conformative Dimensions Same as Industrial Interconnection Model</p> <p>Transformative Dimensions Regulation to define and implement “Golden Ticket”. Regulatory change to direction 8 over access and ownership of transmission and distribution lines or of access to sell electricity as a retailer in this system (BC Utilities Commission, 2020).</p>

(continued on next page)

Table 3 (continued)

Proposed and Deliberated Model Characteristics and Considerations ^a	Examples	Conformative and Transformative Dimensions of Models
<p>Retailer or “Wheeling Agreement”</p> <p>Allows a First Nation’s utility to transfer electricity through the incumbent utility’s existing wires in order to distribute electricity to customers (BC Utilities Commission, 2020).</p> <p>The FNPA could sell electricity for IPPs and pay a wheeling & ancillary services fee to BC Hydro (Keppel Gate Consulting, 2021).</p> <p>Opportunity for First Nation to First Nation energy sales, facilitates energy exports, and the sale of power to domestic industries (Keppel Gate Consulting, 2021).</p>	<p>Existing</p> <p>In the Province of Nova Scotia (NS), NS Power’s Green Choice program sees a crown utility serve as an intermediary between IPPs and end-use customers (Keppel Gate Consulting, 2021).</p> <p>Hypothetical</p> <p>A First Nation with a number of relatively widely dispersed reserves situated in a rural, on-grid area within BC Hydro or Fortis BC service territory, wants to develop, own and operate a geothermal cogeneration plant in or near its largest community to generate electricity for distribution to all of its reserves and provide heat and hot water to the immediately adjacent community. Both the plant and the community are located on the reserve land. As all of the First Nations communities are connected to the incumbent utility’s electricity distribution and/or transmission grid, the First Nation does not plan to build any new wires to connect them to the geo-thermal plant (BC Utilities Commission, 2020, p. 25).</p> <p>A First Nation seeks to develop a renewable generation plant (e.g. run of river, wind) on its territory and has a customer in the incumbent utility’s service territory several hundred miles away. The electricity can be delivered to that customer by wheeling it across the incumbent utility’s transmission system (BC Utilities Commission, 2020, p. 26).</p>	<p>Conformative Dimensions</p> <p>All services would have to meet existing Mandatory Reliability Standards (BC Utilities Commission, 2020). Establish purchase prices paid to IPPs and whether subsidies are necessary (BC Utilities Commission, 2020).</p> <p>Transformative Dimensions</p> <p>Regulatory change to direction 8 over access to sell electricity as a retailer in this system to deliver electricity and/or use BC Hydro’ transmission or distribution infrastructure (BC Utilities Commission, 2020). Retail tariffs could be introduced to allow First Nations to have access to already-existing distribution systems (BC Utilities Commission, 2020). Decreasing demand for the incumbent utility could result in higher rates for their customers requiring a change to cost recovery (BC Utilities Commission, 2020). Identification or creation of a regulatory body for Indigenous utilities (BC Utilities Commission, 2020).</p>
<p>Regional Vertically- Integrated Power Authority</p> <p>A third provincial vertically integrated utility that owns and operates generation, transmission, and distribution services as well as the standard customer services in a specific region of British Columbia (BC Utilities Commission, 2020; Lusztig, 2023a).</p> <p>Could address complex reconciliation, rights, and titles issues, needs and opportunities for First Nations (Lusztig, 2023a).</p> <p>Can be complex relative to actor capacity (Lusztig, 2023a).</p> <p>Significant upfront investment and challenges to secure financing (BC Utilities Commission, 2020).</p> <p>Strategic planning for capital investments (BC Utilities Commission, 2020).</p>	<p>Existing</p> <p>Eight remote First Nation communities in the Province of Ontario operate Independent Power Authorities and are responsible for generating and distributing power for their community (Lovekin et al., 2016)</p> <p>Hypothetical</p> <p>BC Hydro owns the diesel generation and the distribution system that serves a remote, off grid, First Nation. The First Nation wants to develop a clean energy source as a replacement for the diesel generated electricity. The First Nation can act as a public utility, either by selling the electricity to BC Hydro to distribute and sell back to the community or by acquiring the distribution system from BC Hydro and operating its own utility (BC Utilities Commission, 2020, p. 24).</p> <p>A First Nation in an urban area seeks to develop market housing and commercial lots on designated lands within its reserve. For the development to be zero emission and affordable the First Nation would build, own and operate a geoxchange district heating system to provide heat and hot water. As the owner/operator of the geoxchange system, the First Nation is acting as a public utility under the Utilities Commission Act (BC Utilities Commission, 2020, p. 25).</p> <p>A First Nation plans to build and operate a geothermal utility to provide heat and hot water to all residents on the reserve, who may or may not be members of the band. The First Nation has received a number of grants that cover construction costs and it can cover the maintenance costs in its annual budget. Therefore, it does not plan to charge its customers (BC Utilities Commission, 2020, p. 26).</p>	<p>Conformative Dimensions</p> <p>All services would have to meet existing Mandatory Reliability Standards (BC Utilities Commission, 2020).</p> <p>Transformative Dimensions</p> <p>Identification or creation of a regulatory body for Indigenous utilities (BC Utilities Commission, 2020). Must attract customers, develop rate structure and rate setting to recover operating costs (BC Utilities Commission, 2020).</p> <p>Must provide services to customers; billing, complaints, differential rate setting, operations, maintenance, safety, responding to outages (BC Utilities Commission, 2020). Customers may lose subsidised BC Hydro electricity rate (BC Utilities Commission, 2020). Risk of stranded assets for BC Hydro (BC Utilities Commission, 2020). Requires First Nations, colonial governments, industry, to agree on a common model, including cost and benefits allocations (Lusztig, 2023a). Regulatory change to direction 8 over access to sell electricity as a retailer in this system to deliver electricity and/or use BC Hydro’ transmission or distribution infrastructure (BC Utilities Commission, 2020).</p>

^a Lonechild (2023), Keppelgate Consulting (2021), Lusztig (2023a, 2023b) are presentations and reports made to the coalition and to the First Nations Energy Summit.

^b The First Nations Major Projects Coalition (FNMPCC) is a collective of over 170 First Nations across Canada working to advance their interests of participating and gaining equity positions in the projects occurring on their territories (First Nations Major Projects Coalition, 2023b). FNMPCC identifies opportunities and provides resources for First Nations participation in electricity infrastructure projects over \$100 million development (First Nations Major Projects Coalition, 2024a; 2023a, 2019; First Nations Major Projects Coalition and Mokwateh, 2024).

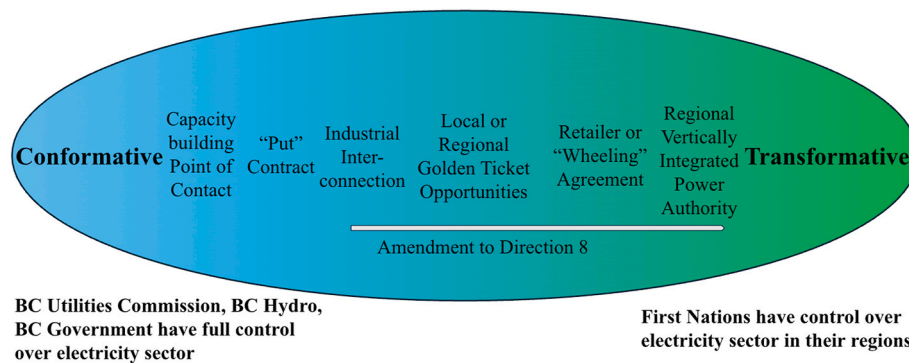


Fig. 2. Characterization of first nation power authority models from conformative to transformative.

model of the six, leaving control over the electricity sector to the BC Utilities Commission, BC Hydro and the colonial BC government. This model is a capacity building organisation that serves to support the streamlining for First Nation renewable energy projects. This model currently exists in another province of Canada: the First Nations Power Authority in Saskatchewan, Canada which was set up by the incumbent utility, SaskPower (see Table 2).

The most transformative model analysed is the Regional Vertically Integrated Power Authority, which would require at least seven significant regulatory changes. The Regional Vertically-Integrated Power Authority model replaces the existing provincial monopoly in certain regions with a First Nation controlled utility. In this approach, the First Nation Power Authority is responsible for all aspects of energy services ranging from generation, to distribution, to customer service. The remaining First Nation Power Authority models fall somewhere between these two models, each requiring at least one significant regulatory change.

The “Put” Contract model ensures that a portion of the generation needed to meet new demand is filled by the First Nation Power Authority, which would serve as an “operator” or “collector” for First Nation IPPs. The Industrial Interconnection First Nation Power Authority model controls the expansion of infrastructure connecting the BC Hydro system beyond its current boundaries. This model currently exists in Ontario under the Watay Power project, an 1800 km transmission line, with 51 % ownership by a collective of 24 First Nations. The “Golden Ticket” opportunities model allows First Nations priority on opportunities in the electricity system, with the flexibility to allow First Nations to respond to context specific opportunities as they arise. Under the Retailer or “Wheeling” Agreement model, the First Nation Power Authority becomes a retailer, selling power to their customers on behalf of First Nation IPP’s while using the connecting infrastructure and billing services of BC Hydro through a wheeling agreement. These versions of First Nation Power Authorities are not mutually exclusive and could be implemented in parallel or be implemented on a case by case basis to suit specific needs in different contexts.

A key regulatory change that would be required for four of the models (Industrial Interconnection, Local or Regional Golden Ticket, Retailer or “Wheeling” Agreement, Regional Vertically Integrated Power Authority) is to Direction 8, a regulatory amendment under the *Utilities Commission Act* addressing unbundling of energy services.⁴ Table 3

⁴ Direction 8 addresses the provision of unbundled transmission services - that is, for generation, transmission, and distribution services are provided and charged for separately rather than provided together for a single fee - in BC. In order for any entity to provide unbundled transmission services, including BC Hydro itself, BC Hydro would need to apply to the BC Utilities Commission and BC Hydro is the only entity that may make this application (BC Utilities Commission, 2020; Office of Legislative Counsel/Ministry of Attorney General, 2019).

outlines how different potential models of First Nation Power Authority’s are limited by Direction 8. Currently, Direction 8 appears to be interpreted differently by First Nations, BC Hydro, and the BC Utilities Commission.⁵ These different interpretations of Direction 8 and how it can be applied affects the nature of regulatory change required for several of the First Nation Power Authority models deliberated in Table 3.

5.3. Interview participants

The 17 interview participants of 14 Nations, 1 organisation, 1 consultant included the chief of one First Nation, council member, climate action team member, or consultants. The locations of the First Nations that consented to being named are identified in Fig. 3 and in Table 4.

5.4. Motivations for transformative energy justice

Far reaching proposals that grant First Nations more control over electricity system development, can be dismissed on the basis of lack of capacity, complexity of proposals, diseconomies of scale or unnecessary, in favour of conformative approaches to improving access to capital or capacity building to develop community-led energy projects, such as the Capacity Building Point of Contact model. However, the interviews revealed why and how some First Nations have come to see renewable energy as a means to achieving self-determination, self-reliance and addressing some of the structural injustices faced by First Nations communities since settlers arrived. Interview participants connected renewable energy projects to reconciliation, self-determination, and community resilience, through the opportunity for energy to support water, food, shelter, energy, transportation, communications, waste management systems (Kanaka Bar Indian Band), to do projects their own way, rebuilding language, history, culture (Simpew, Heiltsuk Nation,

⁵ BC Hydro interprets Direction 8 as precluding any third party from using BC Hydro’s transmission system to sell electricity to a BC Hydro retail customer (BC Utilities Commission, 2020). The BC Utilities Commission interprets Direction 8 to preclude the use by a third party of BC Hydro’s transmission and distribution system to sell electricity to any electricity customer regardless of whether they are a customer of BC Hydro or a customer of a different utility (e.g., Fortis BC or municipally owned electricity utilities) (BC Utilities Commission, 2020). The BC Utility Commission’s interpretation also precludes the use of BC Hydro’s system “to sell electricity to a wholesaler that supplies retail customers” (BC Utilities Commission, 2020, p. 78). Some First Nations have recommended the clarification of Direction 8 to specify that First Nations Utilities are not retail load customers. This clarification, in combination with the introduction of a distribution tariff program, would allow First Nation utilities access to electricity distribution systems as well as unbundled transmission services in order to sell electricity on BC Hydro’s transmission and distribution lines (BC Utilities Commission, 2020, p. 78).

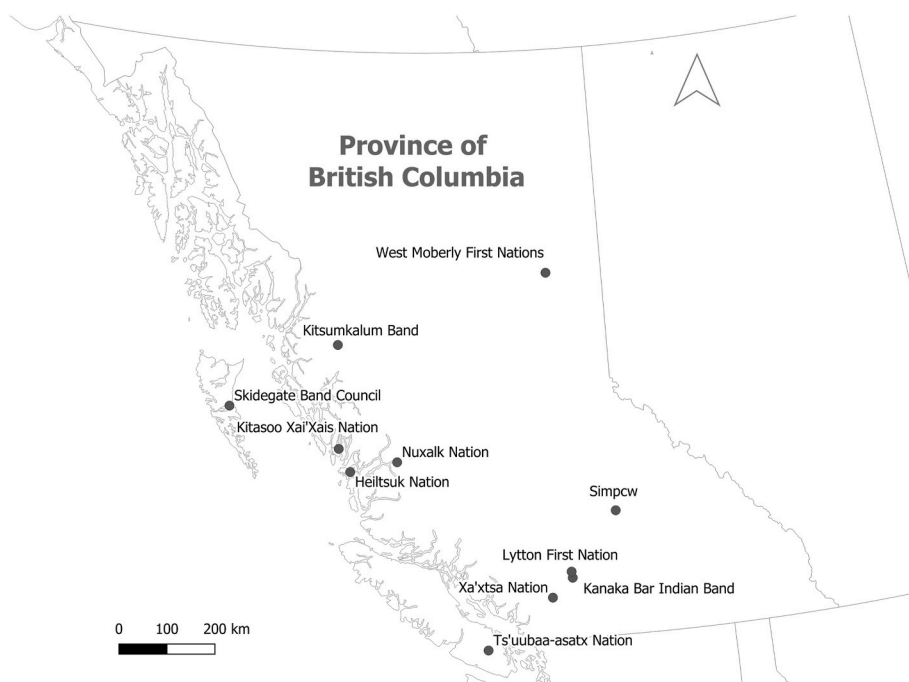


Fig. 3. First Nations research participants.

Table 4
Summary of first nation communities and projects.

First Nation	Active Projects	Year Active	Planned Projects
1 Nation #1	1	2021	1
2 Nation #2	3	2010, 2016, NA	
3 Nation #3	1	2017	
4 Heiltsuk Nation	1	2018	6
5 Kanaka Bar Indian Band	3	2014, 2016, 2019	2
6 Kitasoo Xai'Xais Nation	3	2015, 2021, 2022	
7 Kitsumkalum Band	–	–	2
8 Ts'uubaa-asatx Nation	–	–	2
9 Lytton First Nation	1	2019	
10 Nuxalk Nation	–	–	4
11 Simpcw	1	2011	
12 Skidegate Band Council	2	2015	2
13 West Moberly First Nations	1	2021	1
14 Xa'xtsa Nation	4	2009, 2015, 2016, 2022	
Total	21	–	20

Nuxalk Nation) to make other community decisions (Nation #1), and reduce dependence on expensive BC Hydro bills to members (Nuxalk Nation). For example, Heiltsuk Nation shared that the Nation had an intricate system of economy and governance prior to colonialism. The Nation is working to overcome systemic racism through powerful collaborative leadership and circling back to systems of governance prior to colonialism. Revenue from energy infrastructure projects is viewed as having the potential to help communities regain their energy independence and reduce their dependence on colonial systems.

Renewable energy projects have also led to non-Indigenous communities and businesses in the region that the First Nation works with to recognize the Nation as the true owners of the land (Simpcw).

5.4.1. Relationships and experiences with colonial institutions

First Nation experiences with the incumbent monopoly BC Hydro contribute to the perception that the limitations and barriers put up by colonial institutions are preventing many First Nations from working towards their desired futures. For example, Heiltsuk Nation was displaced by a hydroelectric dam in the early 1900s, and received a mouth promise (verbal agreement) that the dam would be returned to the community. Instead of community control, however, the community now has an MOU with the publicly traded company, Borelex, that now owns the dam. Heiltsuk Nation describes being excluded from conversations and negotiations about retriggering the MOU, about fulfilling the potential of the hydroelectric dam to increase its power output, and about addressing that the transmission lines into Heiltsuk Nation are antiquated and require updating.

“Borelex, who is a current owner of the hydroelectric dam. BC Hydro is the one that sells our power back to us. BCUC [BC Utilities Commission] sets the rate. And we’re in this, excluded, and any negotiations around -, this triangle that totally omits, recognizing DRIPA, recognizing our history in that territory.”

Kanaka Bar Indian Band hoped to develop a run-of-river hydroelectricity dam on their territory as early as 1988 when BC Hydro announced the IPP policy. They filed their application to develop a project on the creek, however, three other developers had already applied to develop a project on the same creek. None of the developers were interested in partnership or relationship with Kanaka Bar Indian Band. Due to a “first in line first in right” provincial policy, it took 10 years for the province to set a “use it or lose it” principle for applications, so that the developers withdrew and Kanaka Bar Indian Band was able to develop hydroelectricity on their own territory.

Kitsumkalum Band was developing a biomass project with a joint venture partner that was ready when BC Hydro withdrew and said that it was too expensive. They described that BC Hydro has remained closed to their reports that advances in technology have the potential to facilitate new clean energy projects and create new opportunities. In their experience, “Well, from being at one moment enthusiastic and excited and totally thrilled to just sort of have this BC Hydro monstrosity just sort of

slam everything shut. It was pretty deflating”.

One remote (off-grid) community managed their own electricity system through Indigenous and Northern Affairs Canada (INAC) for about 50 years since the 1960s. This is because BC Hydro chose to not invest in putting in distribution lines to Nation #1, despite community members being shareholders of BC Hydro.

“Well, there are other words for non-integrated. Ignored, marginalized, oppressed, disenfranchised or otherwise non-integrated – and it’s forgotten and that’s what we were.”

While the diesel system faced constant blackouts and outages, the INAC funding agreement allowed the redistribution of “extra” money across areas of community service, and the Nation took spending from other services to support electricity needs.

“So what we did, as many communities did, and some still do is, we took money from education, social development, economic development, other needed infrastructure, and put it into electricity If you want to know the impact of not having clean energy or energy provided by the system that is provided to the rest of the province, those are the impacts.”

Skidegate Band Council and Nuxalk Nation both describe a good rapport with BC Hydro. Despite this, they also describe a lot of red tape with BC Hydro and the BC Utilities Commission. Nuxalk Nation described the challenge and difficulties getting past BC Hydro’s compartmentalization to come to solutions for complex grid connection problems.

“It’s been - you get bounced around from department to department because provincial - BC Hydro is very compartmentalized You can’t just get everybody into one room and say, “I need this”. And then everybody figures out, discusses amongst themselves productively on what needs to happen. You need to have 10,000 micro conversations before you can get to a macro conversation.”

Skidegate Band Council also mention lack of opportunity to be at events like the BC Utilities Commission’s processes.

5.4.2. Regional collaboration across First Nations as a means to address grid constraints and develop secure and resilient electricity supply

Most First Nations interviewed, whether grid connected or remote, described lack of power quality and reliability and the need for resilience to climate events as major drivers for their ambitions for electricity transformation and the need to take electricity planning into their own hands.

Nuxalk Nation described the challenge ahead of BC Hydro in upgrading the electricity grid for growing communities on a regional scale.

“Electrification of our great infrastructure is also going to cause BC Hydro to upgrade their NIA [non-integrated area]⁶ here. That will be a pretty big wake up call. There are at minimum 3 other communities, I know they’re NIA, that are looking at massive service electrical upgrades and if every other NIA continues to increase in population, they’re going to run into the exact same upgrades that we’re looking at that these other communities are looking at, and instead of each community being looked at from BC Hydro’s perspective as a pilot project, and as a new thing, I’m hoping that we can work together to make sure that there is an easier process for communities to follow instead of what we’ve experienced in other communities.”

⁶ Non-integrated areas (NIAs) are not connected to the wider provincial grid (Nation #1). Communities in NIAs are categorized by BC Hydro as Zone II. Customers in Zone II are served mainly by diesel generators and may pay higher rates for electricity (BC Hydro, n.d.).

Nation #1 describes that when they switched from INAC to BC Hydro as their provider in 2014, in the hopes of developing a renewable electricity project, not only was their project not financed, but BC Hydro charged discriminatory rates for “marginalised/forgotten” communities that are 25–30 % more expensive than grid connected rates. The Nation emphasised that they do not want to pay these punitive rates. In Kitsumkalum Band, the Chief has heard from members that they pay up to \$800 per month for electricity.

To reduce greenhouse gas emissions by displacing reliance on heating oil furnaces, Heiltsuk Nation implemented heat pumps in housing. The Heiltsuk Nation experienced power outages during the winter of 2021 of the COVID 19 pandemic, rendering these electric heating systems useless, and there was no backup heat for homes. Given that the Nation is remote, and there was a pandemic, the world was locked out of the community and there were no options to fix the heat pumps. This highlighted the lack of reliability of the electricity system that the Nation relies on and the Nation’s exclusion from having control over their electricity supply and security. Due to their exclusion from electricity decision making, highlighted by their lack of control over the Borelax-owned hydroelectricity dam, the Nation has partnered with a range of legal and other partners to develop a strategy to have a say in whatever goes forward with the hydroelectric dam.

Kanaka Bar Indian Band is concerned about the risk to the community relying entirely on BC Hydro as electricity poles are often damaged or destroyed by extreme weather events. The community wants to be connected to the grid but needs to have the lights stay on if the grid goes down. Frequency of extreme weather events will increase with climate change. Kitasoo/Xai’xais Nation also described the limitations the BC Hydro distribution grid places on their ability to stay warm: there are electrical issues in homes that lead back to the entire electricity distribution system needing upgrades. It is difficult to put a heat pump into a home that needs electrical rewiring and renovation.

Skidegate Band Council described that their community wants more stable energy with less power quality issues, and they plan to increase demand-side projects and IPPs while eliminating dependence on diesel fuel.

5.4.3. Linking regional electricity change with First Nation Power Authority models

As a result, several First Nations are making their own connections to regional change through transformation of the electricity sector. Many Nations want to be independent of BC Hydro and provide their own power to their own people, but BC Hydro being the monopoly for transmission and production of power is perceived as the biggest hurdle for these communities.

Coastal First Nations Great Bear Initiative have already been working regionally to support the capacity of Indigenous communities through a peer network and training for communities to develop their own, Nation-led clean energy projects. For the last 10 years they have supported coastal First Nations in their clean energy program with paid community positions, networking, knowledge sharing, and capacity development opportunities. The organisation was asked to expand its network beyond coastal First Nations and are in initial phases of this. The network will grow from eight to 24 communities. This is reflective of the “Capacity Building Point of Contact” First Nation Power Authority model.

Nation #2 drew a direct connection between the development of the Nation’s renewable energy projects and BC’s wider energy transition. Given that the province currently lacks the electricity needed to meet its energy goals, the province needs more renewable energy projects. Nation #2 shared that if First Nations are allowed to participate as equals as energy producers, it would further facilitate the meeting of provincial energy goals, with an opportunity for First Nations to sell energy without requiring BC Hydro approval. This is reflective of the “Golden Ticket” or “Put Contract” First Nation Power Authority models.

Kitsumkalum Band mentioned that BC Hydro charges a wheeling fee,

so if the community wanted to sell to nearby communities, they would have to pay for use of the power grid as if power was going to Vancouver and back. The monopoly is creating a barrier to entry for opportunities that are reflective of the Retailer or “Wheeling” Agreement” First Nation Power Authority model and the challenges that Direction 8 poses.

Kitsumkalum Band is hoping that because of the project planning related to clean energy, there could be wider collaboration between regional First Nations and communities to get together and make a regional power management plan facilitated by shared infrastructure and information, reflective of the both the transformative First Nation Power Authority models “Industrial Interconnection” and the “Regional Vertically- Integrated”.

Xa'xtsa Nation is now working to have provincial regulations changed so that the Nation can become a utility and sell electricity to the provincial grid. The Nation is trying to have the BC Utilities Commission lift BC Hydro's monopoly on transmission lines in the province as a first step to establishing a First Nations utility. This way they can become their own utility that operates similar to a municipality where they can provide the energy to the municipality or to another community. At this time there is a lot of work to do to try and get the BC Utilities Commission to get the BC Hydro monopoly off the transmission lines (Xa'xtsa Nation). These transformative regulatory changes that Xa'xtsa Nation is pursuing are reflective of the “Regional Vertically-Integrated” First Nation Power Authority model.

Across the approaches outlined by the interview participants as a way forward for the electricity sector, each type of First Nation Power Authority model identified in Table 3 are being pursued by BC First Nations.

5.5. Discussion summary

Our results show that First Nations narratives of electricity transformation are aligned with DRIPA and with goals of self-determination. Our findings reveal how First Nations proposals for electricity institutional change validate theoretical frameworks of transformational energy justice developed by Avelino et al. (2024) and Elmallah et al. (2022) as the proposals are motivated by attention to the root causes and legacies of inequality, centring the voices and worldviews of Nations, who are historically excluded communities in problem framing, decision making and transition processes. By comparing the characteristics of First Nation Power Authority proposals for electricity institutional change, our findings shed light on where these proposals fall along a continuum of conformative to transformative change towards energy justice. The narratives provided in interviews with knowledge holders from First Nations offer insight into why transformative energy justice approaches are being pursued and how they are shaped by historical experiences of injustice alongside practical community objectives around energy security, resilience, and community development.

Most Nations shared the worldview that energy transitions as envisioned by Nations are composed of regional and relational dimensions. Broadly speaking, many of the Nations interviewed are used to self-reliance, and observe wider connections between electricity development, the land and other communities in the region, and are embracing self-determination in forms of governance and decision making. BC Hydro's monopoly over the electricity grid is perceived as incompatible with worldviews and approaches to problems that are relational and institutional, limiting First Nations opportunities from engaging in energy transitions as a way to work towards their desired futures and their visions for the region. The interviews revealed how many Nations observe critical internal organizational disconnections and infrastructural challenges ahead of BC Hydro. These are observed as long-standing challenges that BC Hydro has not yet been able to resolve, within the broader context of its relationships with BC Utilities Commission and Ministry of Energy, Mines and Low-Carbon Innovation.

Emergent findings from the interviews confirmed how and why each of the proposed First Nation Power Authority models is perceived as

contributing to electricity institutional transformation and aligns with their past experiences and worldviews. Far-reaching models for a First Nation Power Authority, such as the retailer agreement or regional vertically-integrated models, are reflective of the range of needs and ambitions of many of the First Nations that participated in interviews. The interviews confirmed that these models address the identified barriers and solutions to renewable energy development.

6. Conclusion and policy implications

This study draws together theory on transformation, intermediaries and energy justice to characterise institutional change proposals that would unlock market access for First Nations clean energy in BC, documenting a unique case of meso-level collective action by First Nations aimed at aligning electricity institutional change to UNDRIP. Given the limited knowledge about Indigenous meso-level collective action for electricity institutional change, this case, led by First Nations in BC, is informative for Indigenous rights holders, energy actors, researchers and policy practitioners in settler colonial contexts worldwide. There are many other aspects relevant to understanding the prospects and dynamics of transformation, such as intermediary strategy, resourcing and capacity, power dynamics, and interactions with other technical and market preconditions enabling First Nations clean energy projects. However, this study is a starting point for understanding how a transformative approach to energy justice could unfold within the specific context of British Columbia, Canada. More specifically, this analysis details how transformative change as described in theoretical frameworks fits First Nation worldviews, values, and desires for self-determination.

The study findings point to several policy implications that can inform broader policy agendas for transformative energy justice within BC and beyond.

To date, policy makers in BC have focused on meeting the energy needs of the province within the conformative structures of colonial institutions such as the provincial government and the BC Hydro monopoly. Policy maker's efforts to include First Nations in the electricity system are directed toward addressing capacity building, providing information about potential projects, and improving access to capital through the calls for power and standing offer program.

However, our findings show that many First Nations directly involved in the electricity sector hold worldviews that are wider, aligned with goals of self-determination and UNDRIP. Underlying the five more transformative First Nation Power Authority models is the perspective that as long as control over energy systems sits fully in the hands of colonial institutions the opportunity provided by renewable energy cannot be fully realised. The development and adoption of institutional change that allows and encourages the implementation of any of the more ambitious First Nation Power Authority models would represent a significant departure from the incumbent “fit and conform” strategies implemented by policy makers and represented by BC Hydro.

While there are inherent challenges posed by developing and implementing a transformative policy framework for the BC electricity system, significant work has been done by a variety of actors that lay the foundations for policy makers to incorporate these transformative approaches. First Nations have worked to develop relational approaches within their coalition, in sub-regions of BC, and with the institutions of the BC government and with the BC Utilities Commission. The BC Utilities Commission has already produced an extensive report about First Nations utility design, and has acknowledged that preventing First Nations from participating in the clean energy economy undermines UNDRIP and DRIPA. This report acknowledges key regulatory barriers, including those stemming from Direction 8, and offers 35 recommendations to support the implementation of First Nations ownership of utilities (BC Utilities Commission, 2020). Furthermore, there are recent and ongoing announcements of billions in investment in electricity infrastructure in BC (Ministry of Energy, Mines and Low Carbon

Innovation, 2024). This provides an important window of opportunity to develop and implement a policy framework that aligns the goals of DRIPA and the provincial climate targets. Such a framework could build on the groundwork completed by First Nations, governments, and the BC Utilities Commission to simultaneously address supply and create opportunities for First Nations leadership in the renewable energy sector. Several of the proposed First Nation Power Authority models outline ambitions for regional control over portions of the electricity system, which would require new forms of engagement with BC Hydro that would enable First Nations to extend, connect to, and retail through transmission and distribution lines. What remains unclear is whether and how BC Hydro might approach such a change.

CRedit authorship contribution statement

Christina E. Hoicka: Writing – review & editing, Writing – original draft, Visualization, Validation, Supervision, Resources, Project administration, Methodology, Funding acquisition, Formal analysis, Data curation, Conceptualization. **Adam Regier:** Writing – review & editing, Writing – original draft, Validation, Investigation, Formal analysis, Data curation, Visualization, Conceptualization. **Anna L. Berka:** Writing – review & editing, Writing – original draft, Validation, Methodology, Conceptualization. **Sara Chitsaz:** Writing – review & editing, Writing – original draft, Validation, Investigation, Formal analysis, Data curation. **Kayla Klym:** Writing – original draft, Project administration, Investigation, Formal analysis, Data curation.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.enpol.2025.114615>.

Data availability

The data that has been used is confidential.

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