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restoring the flow

Policies to support Indigenous-led clean energy in remote communities

September 2025

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The Pembina Institute recognizes that the work we steward and those we serve span the lands of many Indigenous Peoples. We respectfully acknowledge that our organization is headquartered in the traditional territories of Treaty 7, comprising the Blackfoot Confederacy (Siksika, Piikani and Kainai Nations); the Stoney Nakoda Nations (Goodstoney, Chiniki and Bearspaw First Nations); and the Tsuut'ina Nation. These lands are also home to the Otipemisiwak Métis Government (Districts 5 and 6).

These acknowledgements are part of the start of a journey of several generations. We share them in the spirit of truth, justice and reconciliation, and to contribute to a more equitable and inclusive future for all.

Contents

Executive summary

Restoring the Flow catalogues and evaluates policy action taken by federal, provincial, and territorial governments to support diesel reduction and Indigenous clean energy leadership. We identify and evaluate policies and programs within five categories that have proven to be critical for enabling community-led clean energy projects and restoring the flow of clean electricity, economic benefits of energy ownership, and decision-making power back to remote Indigenous communities.

The five categories of policies and programs are: (1) collaboration between Canadian governments and Indigenous rights-holders; (2) plans and strategies for diesel reduction and community renewable energy; (3) funding for community clean energy projects; (4) programs for efficient buildings in remote communities; and (5) the market for independent power producers to generate clean electricity and establish a revenue stream for the community.

Strong collaboration and partnership with Indigenous clean energy leaders and deep respect for Indigenous rights is a necessary foundation for robust, tailored policies that address the unique challenges of communities in each region.

Strategies that highlight the unique challenge of energy development in remote communities, make commitments, and coordinate governments' efforts to deliver the requisite funding and policy reforms have proven to be effective for enabling community-owned renewable energy projects that displace diesel and provide a long-term source of revenue for the community.

Photo: Pembina Institute/Archbould Photography.

Several common challenges and trends have shaped the policy landscape in remote communities:

- **B.C., Quebec, and the Yukon** are the three jurisdictions making the most progress on supporting Indigenous-led clean energy development, guided by frequent collaboration and ambitious plans to tackle diesel reduction.
- **Renewable energy development in the Territories is uniquely challenging.** High costs, small tax bases, outdated technology, and other constraints make developing and funding renewable energy extremely challenging, highlighting the importance of federal investment.
- **Ontario, Manitoba, Nunavut, and the Yukon** are pursuing grid connection to provide energy to remote communities where feasible. Like community clean energy projects, ownership of transmission infrastructure provides a pathway for economic opportunity, energy security, and diesel reduction in rural and remote communities.
- Most community projects rely on **both federal and provincial/territorial funding** to advance local energy priorities. Federal programs focused on remote communities have supported nearly 500 major clean energy projects and initiatives. Provincial/territorial programs generally support the smaller community initiatives and early stages of large energy projects.
- Most jurisdictions have strong programs to **support energy efficiency** in remote community houses and buildings, but progress is limited in part due to a lack of federal investment in this area.

No jurisdiction can say the work is done. However, increased collaboration on projects and policy reform has led to meaningful progress in advancing remote community energy priorities in the past decade. This includes the development of clean energy generating projects and building upgrades, with many lessons learned and best practices emerging.

Across remote communities in Canada, there are many stories of success: clean energy projects that are Indigenous community-owned, displacing diesel, and generating revenue, with many more in development. These successes confirm that policies and programs to support remote community energy are working and should be expanded. This is especially true on the federal level; federal funding to support remote community energy has been very successful in the period from 2018-2025, though many of the most impactful programs are not accepting additional applications, and the federal government has not announced any reinvestment into the programs.

As Canadian jurisdictions advance their goals of growing the clean economy and pursuing reconciliation with Indigenous Peoples, supporting remote community energy must remain a central priority: restoring the flow of clean electricity and economic benefits to remote Indigenous communities.

Introduction

Restoring the flow

Since time immemorial, rivers have served as sustainers of life, providing Indigenous communities across what is now known as Canada with a critical source of food, water, and nutrients to maintain healthy ecosystems. As the modern-day nation of Canada developed through colonization, it harnessed the flow of rivers to power and sustain the growth of settler populations at the expense of Indigenous communities.

This process often blocked the natural life-bringing flow of rivers to extract and export that power to the developing urban centres, leaving behind reservoirs that destroy ecosystems, submerge sacred sites, and displace entire communities, in some cases leaving those displaced communities without any access to the power generated from these reservoirs.[1]

This colonial decision-making, which prioritized Canada's growing population over Indigenous communities, has created immeasurable harm, entrenched diesel dependency, and left systemic barriers that disenfranchise remote communities and continue to undermine Indigenous rights.

Most Canadians take our secure, abundant electricity resources for granted; when we flip a switch our lights will turn on and our food stays fresh in our freezers all year round. This same guarantee of energy security is not available to remote communities; the majority of whose residents are Indigenous Peoples living on their traditional territories.

Remote communities are largely still powered by diesel generators, which are expensive, noisy, and polluting. Transporting and storing diesel fuel carries the ever-present risk of an environmentally catastrophic spill, or long-term slow leaks.[2] Remote communities pay the highest electricity rates in Canada but still face issues with power quality and blackouts.[3] Energy availability limits community growth and economic development.

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[1] Luke Gleeson, "DƏNE YI'INJETL, The Scattering of Man," *Mesilinka Films*, Tsay Keh Dene First Nation, 2021. https://gem.cbc.ca/dne-yiinjetl-the-scattering-of-man

Denis Paquette, Carmen Henriquez, "Power to the People Episode 13: Gull Bay, ON," *RealWorld Media*, 2019. https://powertothepeople.tv/gull-bay/

[2] Dave Lovekin and Dylan Hereema, *The True Cost of Energy in Remote Communities* (Pembina Institute 2019). https://www.pembina.org/pub/diesel-true-cost

[3] Dave Lovekin, *Diesel Subsidies – Simplified, Part I* (Pembina Institute 2021). https://www.pembina.org/pub/diesel-subsidies-simplified-part-i

In response to these issues, Indigenous leaders across Canada have built community-scale clean energy solutions that not only mitigate the harmful effects of imported diesel, but also create local economic opportunity for First Nations, Métis, and Inuit communities through energy ownership.

While these initiatives have faced multiple barriers such as high capital costs, limited construction seasons, and limited community capacity, Indigenous energy leaders have advanced their projects and advocated for policies and programs to remove barriers for others. The increase of diesel-reducing projects is, in part, the result of an evolving ecosystem of policies and reforms that address these specific barriers and make community-led renewable energy projects a viable endeavour for Indigenous governments, development corporations, and businesses.

This report catalogues existing initiatives at the federal level and in each province and territory. These initiatives are helping to restore the flow of clean power back to communities, whether through transmission lines or local renewable generation projects such as hydro, wind, or solar power developments. But it's about more than just electricity: restoring the flow also refers to the flow of benefits of energy development, and the flow of decision-making power, returning to the community.

The policies and programs included in this report are successful when they are rooted in the recognition of Indigenous rights as defined by the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), motivated by the authentic desire of the Canadian government to reconcile its relations with Indigenous Peoples. These policies build capacity and opportunity for Indigenous communities to step towards energy sovereignty, which creates better outcomes for community growth, self-sufficiency, and climate action.

Photo: Green Sun Rising, Paulatuk, NWT.

Purpose

This research catalogues and evaluates policies, programs, and actions taken by governments across Canada to remove barriers and support Indigenous leaders in diesel reduction, highlighting successes as examples for policy makers to learn from and apply in their own jurisdictions. It also brings attention to some priorities for action in each jurisdiction that would help remove persistent barriers. Successful policies create the conditions for community-led diesel reduction to thrive.

Most diesel-dependent remote communities are Indigenous communities, so the work of diesel reduction is intimately tied to respecting Indigenous rights. This includes implementing legal frameworks for upholding UNDRIP, building Indigenous energy sovereignty, and advancing economic reconciliation through revenue-generating opportunities in clean energy.

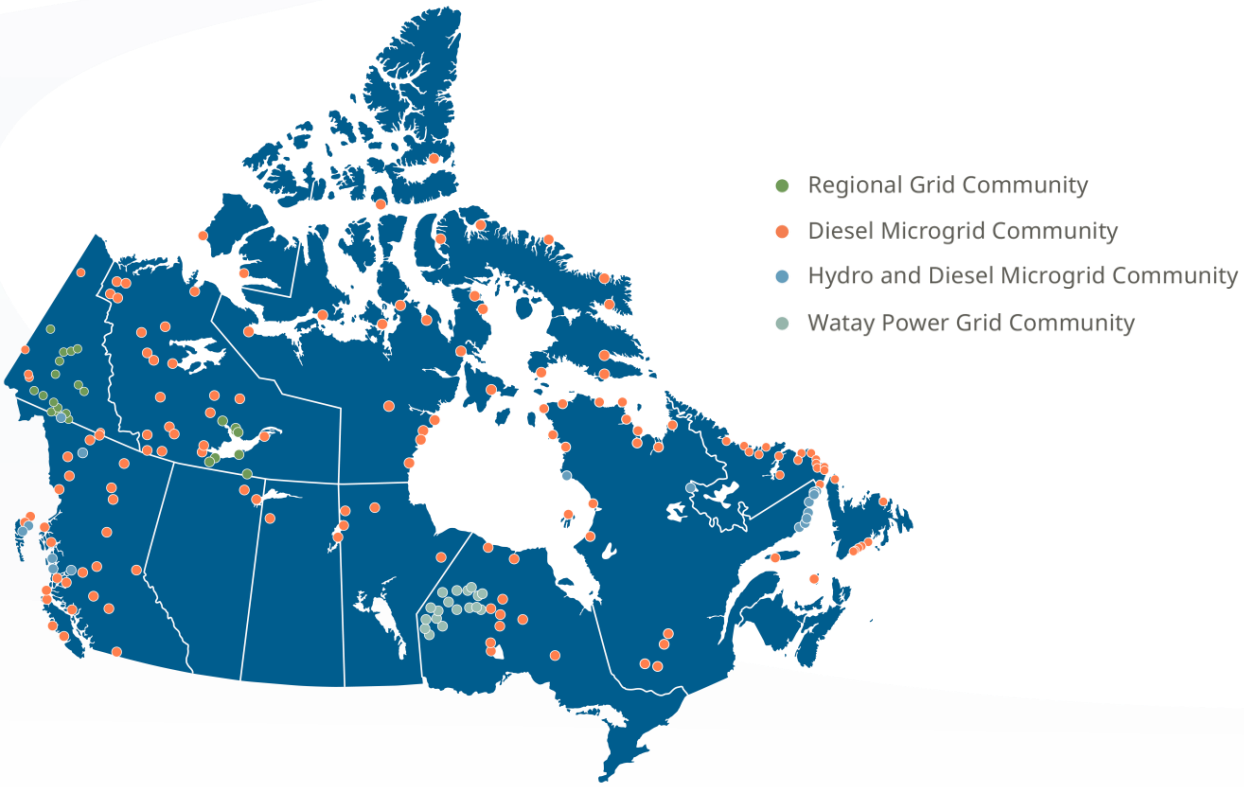
Highlighting progress on these policies spreads awareness of the different strategies and common components to step towards the shared goals: diesel reduction for remote communities and reconciliation with remote Indigenous communities. This report is meant to be a reference for jurisdictions developing policies, as well as a tool for Indigenous leaders and allies as they advocate for more government action.

Methodology

Research

This report's findings come from a scan of published information such as plans, strategies, news releases, and documentation about energy, climate, and diesel reduction priorities in each jurisdiction.

This information is supplemented by interviews with key stakeholders such as utilities; provincial, territorial, and federal government officials; energy policy experts; and representatives of remote First Nations, Inuit, and Métis communities, and affiliated clean energy developers.



Scope

This report examines policies within all Canadian jurisdictions that have remote communities; that is, communities not connected to central North American utility grids. There are remote communities in nearly every Canadian province and all three of the territories. There are also three isolated electrical grids that serve larger populations across many communities: one in Yukon and two in the Northwest Territories.[4]

Remote communities across Canada are mostly Indigenous, and policy action to support remote energy projects is often driven by the advocacy of Indigenous governments and development corporations. While the report highlights Indigenous governments and organizations involved in action and advocacy, policies and actions of Indigenous organizations and governments are not within the scope of the evaluation section of this report.

For each jurisdiction, this report surveyed existing government programs, initiatives, and policies in five key areas, or streams: collaboration with rights-holders; plans and strategies; clean energy project funding and financing; the independent power producer (IPP) market; and programs for efficient buildings.

[4] Emily He, Arthur Bledsoe, Fibha Nazim, Rosa Brown, *Decarbonizing Remote Indigenous Communities - Regulatory reform in B.C. and the territories* (Pembina Institute, 2025). https://www.pembina.org/pub/decarbonizing-remote-indigenous-communities

Evaluation

Along with a list of existing policies and programs in each stream, this report evaluates their relative efficacy in removing barriers and creating a supportive environment for diesel reduction. These evaluations are not intended to prescribe a strict set of actions for communities and governments; rather, they are designed to reflect and account for the unique context and conditions in each jurisdiction.

To summarize the evaluation, we assign a rating that indicates the relative flow of each stream, reflecting the relative efficacy, progress, and momentum of each jurisdiction in that area.

Strong flow

The highest rating we assign is a set of three green waves to indicate that there is a lot of positive progress and action in a given stream. The job isn't done, but the stream has a strong flow: i.e., there is a supportive environment for Indigenous leadership to thrive and strong progress towards diesel reduction that is aligned with community preferences.

Medium flow

The middle ground is a set of two yellow waves. This indicates there is some progress in this stream, but barriers remain that are inhibiting further progress. Jurisdictions that score this rating are doing good work to advance diesel reduction and create opportunities for Indigenous leadership, but they may not be as comprehensive or effective as they need to be.

In practice, the yellow wave rating is flexible and context dependent.

Just a trickle

The third rating is a single red wave, indicating only a trickle. In these streams, the flow of progress is still blocked; but the ambition is there, just waiting to be unleashed. Jurisdictions with red wave ratings have not yet addressed the barriers that restrict Indigenous leadership and reinforce the diesel-dependent status quo.

The ratings are intended to highlight successful policies and point to areas where more attention is needed. We chose to indicate our flow ratings with wave symbols to illustrate that none of these evaluations are static; there is progress in all these areas in each jurisdiction with varying levels of priority, attention, and momentum.

Streams of supportive policies

Through the Pembina Institute's research, advocacy, and work with Indigenous clean energy leaders, utilities, and governments, we have identified five categories, or streams, of policies or initiatives that have emerged as consistent indicators for meaningful diesel reduction progress. Here we explain why each stream is important to supporting diesel reduction and Indigenous leadership.

	Stream of policies	Description
	Collaboration with rights-holders	Recurring collaboration platforms between Indigenous governments and Canadian provinces and territories with a focus on remote renewable energy, diesel reduction, or community preferences for energy.
	Plans and strategies	Plans and strategies (e.g., energy strategies, climate strategies) published by governments and utilities in Canadian provinces and territories to outline actions for meaningfully advancing diesel reduction and remote community energy priorities.
	Funding and financing	Financial support provided by Canadian governments to advance diesel-reducing clean energy projects and community capacity-building (e.g., grants and or guaranteed loans).
	Programs for efficient buildings	Programs to help remote-community buildings consume less energy through retrofits, energy efficient technologies, and net metering.
	Independent power producer (IPP) market	Government and utility policies that create a market opportunity for IPPs to develop diesel-displacing clean energy projects.

Collaboration with rights-holders

Indigenous participation in decision-making is the foundational step for restoring the flow of clean power and benefits to communities. Indigenous leaders from remote communities are the experts on their territories, their communities, and the experience of living with their remote energy system. They hold relationships with community members and understand the customs, traditions, norms, and processes their community needs to thrive.

Indigenous governments and organizations are driving clean energy development and diesel reduction efforts in remote communities through community energy planning, implementation of energy efficiency initiatives, and development of community-led renewable energy projects. Given the unique circumstances of each remote community, their energy and growth goals, and the hyper-local nature of remote energy grids, collaboration with leaders from the community on energy solutions is a practical necessity to advance long-term energy solutions.

This collaboration is both practical and a matter of rights. The United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) articulates the right of Indigenous Peoples to determine priorities for development on their territories in Article 23, and to participate in decision-making matters that affect their rights in Article 18. Article 19 articulates that states should consult and cooperate with Indigenous peoples before adopting administrative and legislative measures that may affect them.[5] The Canadian government has passed legislation, the UN Declaration Act (UNDA) which mandates the government to ensure all its laws are consistent with UNDRIP.[6] Several provinces and territories have also legislated requirements to align with UNDRIP, such as B.C. and the Northwest Territories.

This legislation means that Indigenous participation in decision making about policies affecting them and projects on their territories is legally mandated, though specific requirements and practices have yet to be established. This is necessarily a slow process, as these requirements and practices must be co-developed with Indigenous groups, and that process must recognize the unique conditions and features of each First Nation, Inuit government, and Métis government. Therefore, extensive consultation and collaboration with each of these groups is required.[7]

While the process of enshrining UNDRIP in Canadian law is in progress, regular, meaningful collaboration with rights-holder groups creates opportunities for Indigenous participation in decision making about policies affecting them. Meaningful collaboration is more than simply being informed about opportunities or upcoming changes to policies or planning. Meaningful collaboration involves

[5] United Nations, *United Nations Declaration on the Rights of Indigenous Peoples,* (2007). 15, 16, 18. https://www.un.org/development/desa/indigenouspeoples/wp-content/uploads/sites/19/2018/11/UNDRIP_E_web.pdf

[6] Government of Canada, "About the Act," 2025. https://www.justice.gc.ca/eng/declaration/legislation.html

[7] Government of Canada, "Chapter 1: Shared Priorities," 2023. https://www.justice.gc.ca/eng/declaration/ap-pa/ah/p2.html

working together on policy design, ensuring Indigenous voices are at the table when decisions are made, and that respect for Indigenous knowledge and culture is central to policy and program design.

There is a wide range of possible arrangements that ensure Indigenous voices are at the table. In some cases, negotiated co-governance agreements define the protocol for working together, with structures for shared decision making and conflict resolution. In other cases, informal collaboration and engagement platforms, such as regular working groups between representatives from both Indigenous and Canadian governments and organizations, work well to build consensus and create mutually beneficial outcomes.

There is no one arrangement that guarantees success, but productive arrangements have similar characteristics: they are regular, well resourced, inclusive and respectful, they build trust, and they are rooted in working together in a good way.

Our research identified platforms for collaboration (e.g., governance agreements, working groups, forums, consultations) that are specifically focused on issues such as clean energy development and diesel reduction, and evaluated how effectively these platforms are facilitating collaboration.

Flow level	Collaboration with rights-holders
	Effective well-resourced collaboration, focused on remote community energy priorities, that focus on ensuring policy developments meet the needs of communities and Indigenous leadership. Rooted in legal recognition of Indigenous rights articulated in UNDRIP.
	Collaboration and engagement is happening but is limited in scope and/or not focused on overarching policy or strategy.
	Little to no collaboration between governments and rights-holders.

Plans and strategies

Government plans and strategies are critical indicators of progress and momentum, because policy change requires sustained priority, attention, and resourcing.

Governments commonly publish energy or climate strategies to set goals and identify priorities for the future of the energy sector and to coordinate government efforts to achieve those goals; however, those energy strategies are not guaranteed to address the unique challenges facing remote communities.

To evaluate jurisdictions in this stream, we looked for plans or strategies that specifically identify the priority of addressing energy issues in remote communities, including diesel reduction, clean energy development, energy security, and affordability. Strong strategies identify existing barriers and propose solutions and detailed pathways for action.

We also looked for quantifiable goals, such as diesel reduction targets or clean energy generation targets, and timelines for achieving those goals, as well as instances where Indigenous and remote community representatives were included in the development of plans, strategies, and targets.

Flow level	Plans and strategies
	Comprehensive, detailed plan or strategy specific to remote community microgrids with ambitious targets, timelines, and built-in accountability measures. Acknowledges community priorities for energy, developed with input from communities.
	Plan acknowledges remote community priorities, but is not very ambitious or comprehensive; lacks specific targets, timelines, accountability mechanisms, or funding; or is developed with no input from remote communities.
	No published energy plan or strategy, or published plan does not acknowledge remote communities.

Funding and financing

Government funding for remote energy projects is critical for secure, resilient energy systems and healthy, thriving communities. The funding also helps to build community capacity and ensures the benefits of this development stays in the community. In most cases, projects are supported by a combination of federal and provincial or territorial funds, both of which are important for project execution.

Government funding to meet energy goals through project development is common in any energy system in Canada but is often augmented by private capital. Significant barriers limit access to capital in remote communities, including the low revenue opportunity from these projects due to the small number of customers.[8] Guaranteed financing, where the government backs a loan to de-risk it or offers a low interest loan for clean energy projects, fulfills a critical need to provide access to capital.

Funding can support all phases of project development but can also support critical capacity-building initiatives such as community energy planning and employment for community energy champions, both of which have proven to be effective in facilitating successful clean energy projects. Funding can also support energy efficiency and demand-side management, though that is evaluated separately in the Programs for efficient buildings sections.

Flow level	Funding and financing
	Comprehensive, consistent, dedicated funding for community projects, available to remote communities. Funding for capacity-building and project execution, and microgrid system upgrades.
	Some funding for community projects and/or guaranteed financing, but not enough or not tailored to community project needs.
	No funding dedicated to remote community projects.

[8] Katarina Savic, *The Case for Investing in Clean Energy in Remote Communities* (Pembina Institute, 2022). https://www.pembina.org/pub/case-investing-clean-energy-remote-communities

Programs for efficient buildings

Aging and inadequate houses and community buildings with poor insulation and inefficient technologies drive up diesel use and energy costs. This decreases the quality of life of residents and users of these buildings and exacerbates energy affordability issues.

Programs that fund and/or incentivize energy efficient improvements such as improved appliances, windows, and insulation; major retrofits; and switching from fossil fuels to heat pumps require special considerations to be successful in remote communities. Local staff who can champion these projects and act as community liaisons are an important part of a successful program for efficient buildings, especially housing.

Net metering programs allow building owners to reduce their energy consumption by installing small renewable energy projects, usually solar panels. Net metering programs also benefit from being tailored to remote communities.

Flow level	Programs for efficient buildings
	Comprehensive energy efficiency, retrofits, and fuel switching programs and incentives that are flexible to meet community priorities; tailored for and accessible to remote communities. Programs have funding for community energy champions or community capacity-building around energy efficiency. Additionally, the jurisdiction has an accessible net metering program.
	Jurisdiction has energy efficiency, retrofits, and fuel switching programs or incentives, but these programs are not tailored to remote or Indigenous communities. Net metering program is not tailored to remote communities and does not have much uptake.
	The jurisdiction does not have energy efficiency, retrofits, or fuel switching programs or incentives available to remote communities. There is no net metering program.

Independent power producer (IPP) market

In most cases, community-led clean energy development on remote microgrids hinges on the relationship between the utility and a community-aligned Independent Power Produce (IPP). An IPP is a business that builds and operates a clean energy generation project. Where utilities operate in remote communities, the IPP must sell power to the utility to offset the diesel that would normally power the microgrid.

A community-aligned IPP is one that is partly or wholly owned by the Indigenous government, development corporation, or other local Indigenous-led organization. This arrangement allows Indigenous-owned or partnered renewable energy businesses to see the economic benefits of power generation. The utility, instead of spending money on diesel fuel, buys clean power from the IPP, providing a source of revenue to further community development.

The utility and the IPP accomplish this with a contract called a power purchase agreement (PPA), in some jurisdictions known as an electricity or energy purchase agreement (EPA), which sets the purchase price of the clean energy, as well as outlining details about the technical operation and integration of the project onto the microgrid.

The addition of clean energy projects onto diesel-powered community microgrids is technically complex and requires close collaboration between the IPP and the utility. The best-case scenario is that the IPP and the utility negotiate contracts that result in a mutually beneficial business relationship and technical collaboration.

However, due to regulatory constraints, utility business models, risk aversion, and capacity and funding constraints, these negotiations can be lengthy and challenging. Often these challenges are exacerbated by historically strained relations and a lack of trust between remote communities and utilities.

One strategy for mitigating these challenges is by establishing a clearly defined market for community-led clean energy generation that displaces diesel. This market can be created through an IPP policy with accessible and transparent procedures for technical integration and business negotiation.

Independent power producer (IPP) market *(continued)*

A clearly defined market should include a transparent pricing system for procuring renewable energy on a fixed-term contract that allows an IPP to have a clear picture of what their expected return on their investment will be. It should also have clear indications of who will bear what auxiliary costs, such as the costs of technical studies or upgrades to the microgrid. A strong IPP policy also should have some provisions that ensure the IPP has the full support of the community and that the benefits of energy development flow to the community through ownership or revenue sharing.

Flow level	Independent power producer (IPP) market
	A well-defined IPP policy for diesel reducing projects with a transparent formula for pricing, a favourable price for development, straightforward processes and procedures for developing a community-aligned IPP, technical integration of the project, and power purchase agreement (PPA) negotiation. Clearly defined roles and responsibilities of all parties.
	A partially defined IPP policy, or a policy where the value of rates is too low to support meaningful development. Varying levels of clarity and definition on roles, responsibilities, and procedures.
	No public-facing IPP policy; all PPAs are negotiated on a case-by-case basis.

Shared factors and challenges

Every jurisdiction with remote communities in Canada is unique: politically, geographically, economically, and culturally. These conditions shape the policy landscape for remote communities and the resulting challenges and barriers preventing diesel reduction. However, jurisdictions also face some similar challenges across provincial or territorial borders. The following sections highlight these common challenges, which shape the policy context for our evaluation and future action.

Regulation and utilities

Utilities in each jurisdiction are governed by regulators or public utility boards which ensure that utilities provide safe, reliable power at the lowest possible cost. Integrating renewable energy onto a microgrid is expensive, and regulators scrutinize all the utility's expenditures, especially those that could result in higher rates for customers.

Community clean energy projects result in higher costs for utilities because most microgrids require investments to allow the utility to operate the microgrid with both renewables and diesel at the same time. While these investments are necessary to provide safe and reliable energy that is aligned with community preferences in the long run, utility regulators may not have the mandate to support this additional cost on the utility in the short term.[9]

Remote utilities don't make a profit, and the regulator limits how much they can spend on integrating a community clean energy project onto a microgrid. Recognizing the importance of remote community diesel reduction and reconciliation with Indigenous Peoples, certain jurisdictions have developed specific regulatory conditions to allow utilities to make the investments they need to support remote community projects.

These regulatory limitations are not examined in detail in this report but are significant for shaping the utility's IPP negotiations and the price it can pay for clean energy, as well as any infrastructure investments needed on the microgrids.

For a more in-depth look at regulatory reform, the Pembina Institute studied the regulatory conditions in B.C. and the territories in the 2025 report *Decarbonizing Remote Indigenous Communities*.[10]

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[9] Emily He, Grace Brown, and Dave Lovekin, *Transforming the Utility Business Model* (Pembina Institute, 2022). https://www.pembina.org/pub/transforming-utility-business-model

[10] Emily He, Arthur Bledsoe, and Fibha Nazim, *Decarbonizing Remote Indigenous Communities: Regulatory reform in B.C. and the territories* (Pembina Institute, 2025). https://www.pembina.org/pub/decarbonizing-remote-indigenous-communities

Northern context

The Yukon, Northwest Territories, and Nunavut are geographically and politically distinct from the Canadian provinces in ways that meaningfully shape the policy contexts evaluated in this report. Compared to the provinces, the territories have significantly higher proportions of Indigenous peoples in their population and as such have a more integrated governance structure between Indigenous and colonial governments. Each territory's approach to co-governance varies.

The territories all have relatively small, geographically disparate populations, resulting in high costs to provide government services and small tax bases to fund them. The territories also operate with less financial freedom than the provinces, as their borrowing limits are set by an order in council under direction from the federal minister of Finance, which is not the case for the provinces.[11]

Utilities in the provinces generate revenue through their on-grid operations that supply power to large customer bases. They can also sell power to neighbouring jurisdictions. These revenues are used to help cover fixed and operational costs of running the utility.

In the territories, where utilities only operate isolated grids, the cost to generate and distribute electricity is higher, the customer base is small and there is no export potential. This makes the business of operating utilities much more challenging, even before factoring in the additional costs associated with renewable energy integration. To make matters worse, much of the generation infrastructure was inherited from the federal government in the 1950s and is now reaching the end of its life, requiring significant investments from utilities and governments to maintain safe and reliable microgrids.[12]

Additional challenges to renewable energy integration in the North are short construction seasons, extreme weather conditions, and limitations with local capacity, which drive up the cost and complexity of projects. The North is also warming at a faster rate than the rest of the world and the impacts of climate change, such as melting permafrost, more volatile weather systems, and less reliable ice roads create more uncertainty and increase costs for projects.

[11] Government of Canada, "Territorial Borrowing Limits," 2025. https://www.canada.ca/en/department-finance/programs/federal-transfers/territorial-borrowing-limits.html

[12] Standing Committee on Energy, Environment and Natural Resources, *Powering Canada's Territories,* 2015, 9. https://sencanada.ca/content/sen/committee/412/enev/rep/rep14jun15-e.pdf

Energy security in rural and remote communities

Remote communities often experience energy insecurity: high energy costs relative to incomes, frequent outages, and low power quality, which can damage appliances.

These concerns about energy security that motivate clean energy ambitions in remote communities are also present in rural Indigenous communities that are grid-connected. While these communities are not on isolated microgrids, they are located far from population centres and are usually serviced by long transmission lines. Utilities servicing these communities face similar challenges to remote utilities in providing reliable power at the lowest cost.

The prairie provinces — Alberta, Saskatchewan, and Manitoba — have a few remote, diesel-dependent communities, but many rural, grid-connected northern Indigenous communities that experience energy insecurity.

Given that these jurisdictions have only a handful of non-grid-connected communities, it is unsurprising that policies to address remote communities are limited. However, there is an opportunity in these jurisdictions to prioritize Indigenous energy security and create programs that support community-led energy projects that are accessible to all rural and remote communities. For this reason, we included policies to support rural Indigenous communities in these jurisdictions in the scope of our evaluation.

The focus on energy security is an important framing for all rural and remote communities, not just the prairies. The consequences of energy insecurity are severe: limited community growth, entrenched poverty and inequality, and reduced quality of life for residents. Healthy, thriving communities require secure, affordable, reliable energy.

Grid connection

Even though remote grid-connected communities still face issues with energy security, grid connection is the most effective strategy for reducing diesel consumption and can create a strong pathway towards energy security. Ontario, Manitoba, Nunavut, and the Yukon are all exploring grid connection to reduce reliance on diesel and increase the energy supply to enable community growth.

Remote transmission lines span thousands of kilometres across traditional territories, and their routing can impact wildlife and ecosystems that are valuable to community members. It is therefore important for grid connection projects to be done in partnership with Indigenous governments and communities, and it is not the best solution for all remote communities. Grid connection comes with significant capital costs, but ownership of transmission infrastructure provides Indigenous communities an opportunity for long-term, stable, economic growth.

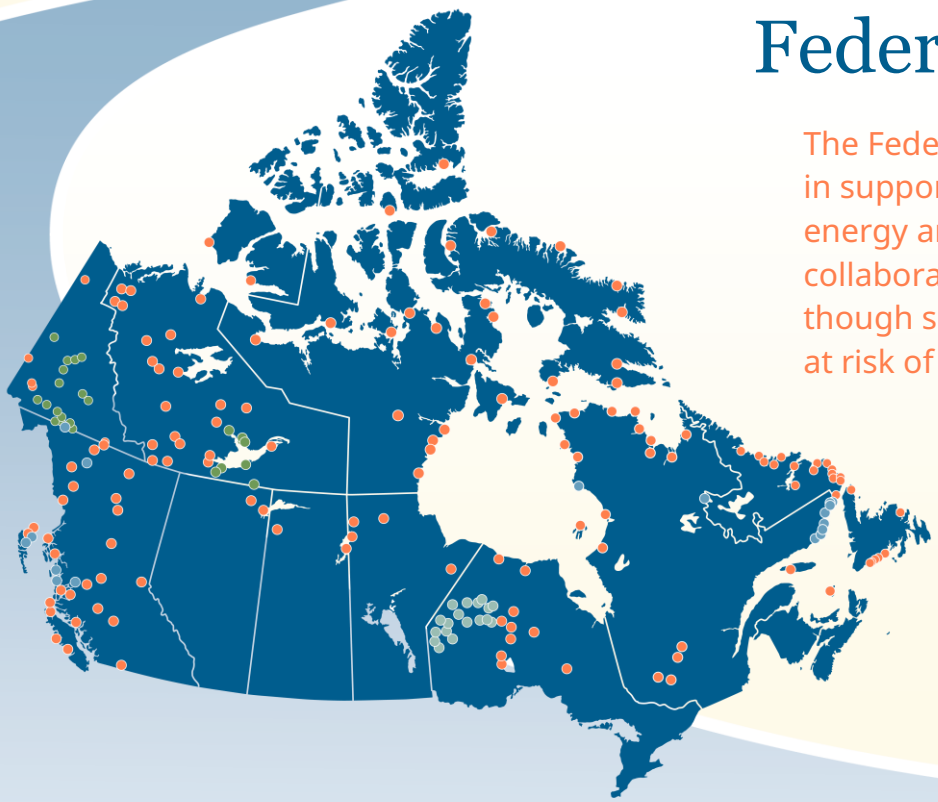
In recent years, many formerly remote communities have been connected to the grid, notably 17 communities in Ontario through the Indigenous-led and -owned Wataynikaneyap Power project.[13] When grid connection is done in true partnership with remote communities, it can powerfully advance diesel reduction and economic reconciliation.

[13] Wataynikaneyap Power, "Wataynikaneyap Power Completes Construction of "the Line that Brings Light"," news release, December 13, 2024. https://www.wataypower.ca/updates/wataynikaneyap-power-completes-construction-of-the-line-that-brings-light

Photo: Wataynikaneyap Power, Muskrat Dam First Nation Homelands, Ontario, 2023

Federal government

The Federal government plays a key role in supporting Indigenous-led clean energy and has made major strides in collaboration with Indigenous leaders, though successful funding programs are at risk of not being renewed.



Collaboration with rights-holders	Collaboration and engagement underway, but more work needed to ensure continued alignment with UNDRIP.	≈
Plans and strategies	Good plan, developed with Indigenous input; commitments to work collaboratively, but limited detail on execution or accountability.	≈
Funding and financing	Future of funding programs dedicated for remote communities is uncertain with many programs not expected to be recapitalized.	≈
Programs for efficient buildings	Limited funding and lack of priority compared to generation projects; much of the available programs are not tailored to remote communities.	≈
Independent power producer (IPP) market	IPP market not under the jurisdiction of the federal government.	N/A

Restoring the flow: Federal government

Canada has over 210 remote communities, most of which are Indigenous.[14] The federal government has developed a suite of programs to support the advancement of diesel reduction for remote communities and reconciliation with Indigenous Peoples.

The federal government's support has been delivered via three major avenues: funding for diesel-reducing programs; research on technical challenges and policy barriers that inhibit clean energy progress in remote communities; and capacity-building programs to support Indigenous leadership, knowledge sharing, and collaboration on diesel reduction across Canada. This support is primarily delivered by Natural Resources Canada (NRCan), Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC), and Indigenous Services Canada (ISC).

These federal supports have played a central role in advancing community clean energy projects — especially in the territories where energy development is more complex and requires steady federal funds due to the territories' unique geographical, technical, and socioeconomic challenges. These federal programs have been highly successful in enabling community-led clean energy projects across remote communities, but this progress is threatened by shifting political priorities, leaving the future of many of these programs uncertain.

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[14] Government of Canada, "The Atlas of Canada - Remote Communities Energy Database." https://atlas.gc.ca/rced-bdece/en/index.html

Photo: Pembina Institute/Archbould Photography, Haeckel Hill-Thay T'äw Wind Energy Project, March 2025.

Federal government

Collaboration with rights-holders

The federal government formally engages on climate action and reconciliation through three distinct partnership tables, one for each national Indigenous organization: the Assembly of First Nations, Inuit Tapiriit Kanatami, and the Métis National Council.[15] These tables have long advocated for federal programs to be co-developed with Indigenous partners, reflect distinct rights and priorities, and provide flexible, sustained funding that supports self-determined approaches to climate action and reconciliation.

In 2021, the Government of Canada passed the United Nations Declaration on the Rights of Indigenous Peoples Act (UNDA), which commits the government to aligning all federal laws with UNDRIP.[16] Implementing UNDA is a long process, and while legislative reform and best practices are being developed, individual departments are determining how to apply UNDA to their programs and policies. In practice, this involves increasing consciousness of the principles of self determination and respect for Indigenous knowledge systems and rights are central considerations while developing programs and policies, as well as identifying opportunities for co-development with Indigenous leaders.

As it relates to diesel reduction in rural and remote communities, engagement and collaboration has primarily taken place through the Wah-ila-toos initiative — a collaborative effort between several departments to coordinate policy development and programming focused on remote community energy. Wah-ila-toos is guided by an independent Indigenous council that advises on program design, funding, and policy development for the clean energy transition.[17] The council also provides guidance on actions to reduce barriers to participation in federal programs, and how to incorporate Indigenous knowledge, priorities, and cultural perspectives into clean energy initiatives. Federal program teams also engage directly with Indigenous governments, organizations, and project proponents on program implementation and delivery.

While this focus on collaboration at the program level is laudable, overarching direction about how federal money is allocated and recent legislation which has the potential to sidetrack Indigenous rights in major projects development is raising serious cause for concern.

Collaboration and engagement underway, but more work needed to ensure continued alignment with UNDRIP.

[15] Environment and Climate Change Canada, "Canada's Partnership with Indigenous Peoples on Climate." May 21, 2025. https://www.canada.ca/en/environment-climate-change/services/climate-change/indigenous-partnership.html

[16] Justice Canada, "Implementing the United Nations Declaration on the Rights of Indigenous Peoples Act." https://www.justice.gc.ca/eng/declaration/index.html

[17] Environment and Natural Resources Canada, "Indigenous Council for Wah-ila-toos." https://www.canada.ca/en/services/environment/weather/climatechange/climate-plan/reduce-emissions/reducing-reliance-diesel/indigenous-council-for-wah-ila-toos.html

Federal government

Plans and strategies

The federal government's most recent clean electricity strategy, *Powering Canada's Future: A Clean Electricity Strategy*, published in 2024, outlines the various actions the government will take to support the clean energy transition on, emphasizing collaboration with provinces and territories. The strategy highlights the priority of "adapting its approaches to the distinct circumstances of the north," and remote areas, and of "advancing economic reconciliation with Indigenous Peoples," among others.[18]

The Clean Electricity Strategy identifies pathways to provide funding and capacity support to Indigenous clean energy project developers and owners, as well as programs to support retrofits and energy efficiency upgrades in Indigenous communities. It also identifies the government's role in developing best practices and norms for more successful federal programs to advance the Indigenous Climate leadership agenda and accelerate Indigenous leadership in clean electricity.[19]

The clean electricity strategy was informed, in part, by the Wah-ila-toos Indigenous council's report, *Kinship and Prosperity: Proven Solutions for a Clean Energy Landscape*. The recommendations in the report are grouped into six themes covering access to funding, project eligibility criteria, inclusive opportunities, Indigenous leadership, self-determination, and sustainable funding.[20]

The clean electricity strategy identifies pathways to provide funding and capacity support to Indigenous clean energy project developers and owners, as well as programs to support retrofits and energy efficiency upgrades in Indigenous communities. It also identifies the government's role in developing best practices and norms for more successful federal programs to advance the Indigenous Climate leadership agenda and accelerate Indigenous leadership in clean electricity.[21]

Good plan, developed with Indigenous input; commitments to work collaboratively, but limited detail on execution or accountability.

[18] Natural Resources Canada, *Powering Canada's Future: A Clean Electricity Strategy*, https://natural-resources.canada.ca/energy-sources/powering-canada-s-future-clean-electricity-strategy#a6d

[19] *Powering Canada's Future*, 3.2-3.3

[20] Government of Canada, *Kinship and Prosperity: Proven Solutions for a Clean Energy Landscape* (2024). https://www.canada.ca/en/services/environment/weather/climatechange/climate-plan/reduce-emissions/reducing-reliance-diesel/indigenous-council-for-wah-ila-toos/kinship-and-prosperity-proven-polutions-for-a-clean-energy-landscape.html#ab

[21] *Powering Canada's Future*, 3.2-3.3

Community project funding and financing

The federal government plays a critical role in funding remote community clean energy projects, with a range of programs to support clean energy in remote and northern communities. These federal programs are often combined with each other and with programs from each respective province or territory to support the full cost of remote clean energy projects. This funding is a key vehicle for delivering on the government's commitment to reconciliation and UNDRIP.

Wah-ila-toos is the main initiative for funding diesel-reducing initiatives in remote communities, and the program takes community-centred approach, providing flexible timelines and funding offerings for all kinds of community projects. Wah-ila-toos was established in 2022 and streamlines the application process for remote and northern communities seeking clean energy funding across 3 major programs:[22]

- The Clean Energy for Rural and Remote Communities Program (CERRC) funds renewable energy, capacity-building projects, and energy efficiency measures, in Indigenous rural and remote communities across Canada. CERRC has run since 2018 with a total investment of $453 million but as of fall 2025 is fully subscribed and applications will be used to inform future funding program design and deployment.[23]
- The Northern Responsible Energy Approach for Community Heat and Energy Program (Northern REACHE) funds renewable energy and energy efficiency projects and relaced capacity building and planning in the territories and Inuit Nunangat. Northern REACHE has been active since 2018 and has invested over $102 million in northern clean energy projects.[24]
- The Indigenous Off-Diesel Initiative (IODI) is a capacity-building and training program that supports Indigenous energy champions from remote communities by providing mentorship, peer-to-peer learning, and funding for community energy planning and projects. IODI has run for two cohorts since 2019 but as of fall 2025 is not funded for a next cohort.[25]

Wah-ila-toos also offers Indigenous project proponents with pathfinding support to identify additional federal funding programs that can also support the projects.

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[22] Government of Canada, "Wah-ila-toos: Funding opportunities," 2025. https://www.canada.ca/en/services/environment/weather/climatechange/climate-plan/reduce-emissions/reducing-reliance-diesel/wah-ila-toos-funding-opportunities.html

[23] Natural Resources Canada, "Clean Energy for Rural and Remote Communities Program," 2025. https://natural-resources.canada.ca/funding-partnerships/clean-energy-rural-remote-communities-program

[24] Crown Indigenous Relations and Northern Affairs Canada, "Northern REACHE Program," 2023. https://www.rcaanc-cirnac.gc.ca/eng/1481305379258/1594737453888

[25] Government of Canada, "Indigenous Off-Diesel Initiative," 2023. https://www.canada.ca/en/services/environment/weather/climatechange/climate-plan/reduce-emissions/reducing-reliance-diesel/indigenous-off-diesel-initiative.html

Community project funding and financing *(continued)*

Other funding streams administered by different federal departments play a critical role in supporting the full cost of remote community projects and allowing the Wah-ila-toos programs to support more communities in their renewable energy ambitions. These programs are national in scope and not specifically focused on remote communities, but remote community projects are eligible:

- The Strategic Partnerships Initiative (SPI), led by Indigenous Services Canada, is a mechanism for departments to coordinate federal efforts to help Indigenous communities participate in complex economic opportunities, including in the clean energy sector, supported by an annual budget of $14.45 million. Until 2027, SPI has an additional $12 million annually to support regional clean energy initiatives.[26]
- The Indigenous Leadership Fund, delivered by Environment and Climate Change Canada under the Low Carbon Economy Fund, provides up to $180 million by 2029 to support climate action by Indigenous peoples. The program funds Indigenous-owned and led renewable energy, energy efficiency, and low-carbon heating projects.[27]
- The Investing in Canada Infrastructure Program delivered by Housing, Infrastructure and Communities Canada is a $33 billion fund that invests in community infrastructures, including through a Rural and Northern Communities Infrastructure stream that funds projects in various areas including energy.[28]
- The Smart Renewables and Electrification Pathways Program (SREPs), launched in 2021, is a $4.5 billion fund to support the deployment of grid modernization, energy storage, and renewable energy technologies across Canada. SREPs has an Indigenous-led Clean Energy Stream and as well as a Utility Support Stream to support utilities and system operators. This support for grid modernization and storage is especially crucial on remote community microgrids. SREPs is not accepting applications and expected to end with the 2025 fiscal year.[29]

[26] Indigenous Services Canada, "Strategic Partnerships Initiative," 2025. https://sac-isc.gc.ca/eng/1330016561558/1594122175203

[27] Government of Canada, "Indigenous Leadership Fund," 2024. https://www.canada.ca/en/environment-climate-change/services/climate-change/low-carbon-economy-fund/indigenous-leadership.html

[28] Housing Infrastructure and Communities Canada, "Investing in Canada Infrastructure Program," 2024. https://infrastructure.gc.ca/plan/icp-pic-INFC-eng

[29] Natural Resources Canada, "Smart Renewables and Electrification Pathways Program," 2025. https://natural-resources.canada.ca/climate-change/sreps

Community project funding and financing *(continued)*

In addition to funding programs, the Federal government offers an Indigenous loan guarantee program to improve access to capital for Indigenous communities and governments to invest in major projects.

The Indigenous Loan Guarantee Program provides up to $5 billion in loan guarantees to create access to capital for Indigenous groups investing in major resource and energy projects. The program will be run through the Canada Indigenous Loan Guarantee Corporation, a newly formed wholly-owned subsidiary of the Canada Development Investment Corporation.[30] Large clean energy projects and transmission lines are identified as a strong fit for the program.[31] The program does not fund energy security or diesel reduction initiatives or project development, but it supports Indigenous equity buy-in to economically viable projects.

The Canada Infrastructure Bank (CIB) also offers loans for Indigenous groups to purchase equity stakes in infrastructure projects through the Indigenous Equity Initiative (IEI), launched in 2023. The projects must be situated on a First Nation, Metis, or Inuit community's traditional territory and fall within one of the CIB's priority sectors, which include electricity transmission, battery storage, and electricity generation, as well as infrastructure to support the development of critical minerals. The IEI is meant to create access to capital for Indigenous communities and accelerate transformative infrastructure projects that are in the public interest.[32]

These financing programs do not fund community scale projects, but are well positioned to support major infrastructure projects, such as transmission lines.

Federal funding to support remote community energy has been very strong and successful in the period from 2018-2025, though many programs are not accepting additional applications and the federal government has not announced any reinvestment into the programs.

Future of funding programs dedicated for remote communities is uncertain with many programs not expected to be recapitalized.

[30] Department of Finance Canada, "Canada Indigenous Loan Guarantee Corporation," 2025. https://www.canada.ca/en/department-finance/news/2024/12/canada-indigenous-loan-guarantee-corporation.html

[31] *Powering Canada's Future,* 3.3.2(i).

[32] Canada Infrastructure Bank, "Canada Infrastructure Bank launches new Indigenous Equity Initiative," news release, November 17, 2023. https://cib-bic.ca/en/medias/articles/canada-infrastructure-bank-launches-new-indigenous-equity-initiative/

Programs for efficient buildings

Most of the federal programs to fund clean energy in remote communities are not well positioned to support energy efficiency measures such as building upgrades and retrofits. As a result, there is a lack of funding relative to the magnitude of the need to improve energy efficiency and demand side management in remote communities, especially for bigger projects such as deep retrofits.

The federal government offers funding for off-grid homeowners if they meet certain conditions as part of the Canada Greener Homes Loan, administered by Natural Resources Canada (NRCan), and grants for replacing oil furnaces with heat pumps, but these programs are not well scoped to the unique conditions of remote Indigenous communities, especially in the northern context.[33]

Several other programs have support retrofits and energy efficiency upgrades in Indigenous communities; however, they have limited funding, are highly competitive, and are not tailored to remote communities. These include the Green and Inclusive Community Buildings Program, which is no longer accepting applicants and the Toward net zero homes and community buildings program. [34,35]

The Canada Housing and Mortgage Corporation offers an Indigenous and Northern Housing stream of the Affordable Housing fund, which offers low-interest forgivable loans for new affordable housing supply.[36]

Limited funding and lack of priority compared to generation projects; available programs are not tailored to remote communities.

[33] Natural Resources Canada, "Grants for Canadian homeowners living in the North and off-grid communities." https://natural-resources.canada.ca/energy-efficiency/homes/canada-greener-homes-initiative/canada-greener-homes-grant/canada-greener-homes-grant/how-the-grant-process-works/grants-for-canadian-homeowners-living-the-north-and-grid

[34] Housing, Infrastructure and Communities Canada, "Green and Inclusive Community Buildings Program," September 4, 2024. https://housing-infrastructure.canada.ca/gicb-bcvi/index-eng.html

[35] Natural Resources Canada, "Toward net-zero homes and communities," 2025. https://natural-resources.canada.ca/energy-efficiency/home-energy-efficiency/toward-net-zero-homes-communities

[36] Canada Mortgage and Housing Corporation, "Affordable Housing Fund: Indigenous and Northern Housing Enhanced," 2024. https://www.cmhc-schl.gc.ca/professionals/project-funding-and-mortgage-financing/funding-programs/all-funding-programs/affordable-housing-fund/affordable-housing-fund-indigenous-and-northern-housing?ap=a1-p1

Federal government

Independent power producer (IPP) market

Since utilities are regulated by provinces and territories, the federal government does not have specific policies related to an IPP market. However, the government has commissioned research to examine challenges that utilities face as remote communities strive to transition to clean.

The research report found — among other challenges — that power purchase agreement rates tied to the avoided cost of diesel are generally lower than what is needed to spur clean energy development, but that utilities struggle to offer higher rates due to their cost-of-service model and regulatory mandates.[37]

The report offered recommendations to utilities; regulators; and provincial, territorial and federal governments on how to alleviate the social, technical, financial, and organizational barriers faced by utilities in the clean energy transition in remote communities.

These include, among others, early engagement with communities, increased technical collaboration and data transparency, funding for infrastructure supportive of renewable energy integration, and improving access to insurance and financing for remote community projects.[38]

N/A IPP market not under the jurisdiction of the federal government.

[37] Dunsky Energy + Climate Advisors, *Utility Impacts of Clean Energy Projects in Remote Communities*, prepared for the Government of Canada (2023), 35. https://natural-resources.canada.ca/reducingdiesel/findings-the-clean-energy-transition-for-utilities-serving-remote-communities/25726#a4

[38] *Utility Impacts of Clean Energy Projects in Remote Communities*, i.

Program outcomes

The programs to support community capacity and provide funding for diesel reduction projects have been highly successful, supporting major investments in diesel-reducing projects and community energy security across Canada.

Since its launch in 2018, CERRC has supported 229 projects with a funding commitment of $453 million, including large capital projects, innovation projects, capacity-building initiatives, and bioheat projects, with 82 in the North. CERRC exceeded its target of 40% Indigenous-led or involved projects, with 96% of projects having significant Indigenous involvement. In addition, by supporting the high demand for capacity building initiatives, CERRC has helped to establish the networks and knowledge required to advance future clean energy projects, many of which are looking to be deployed by 2030.

Since launching in 2016, Northern REACHE has supported 249 projects focused on capacity building, renewable energy development, or energy efficiency, with an investment of over $102M. The program has been instrumental in supporting early stages of energy projects from conceptualization, feasibility and planning work to de-risk projects and prepare for next stages and larger investments, as well as building northern and Indigenous capacity to participate in clean energy development. In 2021, Northern REACHE underwent a program evaluation which found that the program is well respected, managed, and delivered, and embodies many best practices for clean energy funding to northern and Indigenous communities.

The IODI program has supported 24 community energy champions with funding, training, and mentorship over two cohorts from 2019 to 2025, many of whom have advanced significant community energy initiatives and championed local clean energy generation projects.

The success of these programs highlights the major role the federal government plays in funding and supporting community-driven clean energy solutions to strengthen energy security and resilience for remote communities.

Priorities for action

The conversation around the remote community energy transition at the federal level has evolved to acknowledge that the true path to a sustainable energy future for remote communities means prioritizing local, Indigenous-led solutions that provide energy security and affordability in conjunction with the economic benefits of energy infrastructure ownership. This means supporting project teams and utilities to collaborate on building resilient future-ready grid solutions tailored to the unique plans and needs of each community.

Moving forward, federal government must preserve and expand the funding programs and continue to improve access to funding for remote communities throughout Canada. The funding must be comprehensive, supporting Indigenous-led energy and energy efficiency projects directly, as well as utilities seeking to modernize their microgrids and integrate renewable energy and provincial and territorial governments running their own programs.

The federal government should also continue to implement the recommendations made by the Wah-ila-toos Indigenous Council in the Kinship and Prosperity report in its program design and delivery.[39] These recommendations outline how to continue to build a policy environment that supports diesel reduction through clean energy projects, centers Indigenous rights, and creates flourishing partnerships with Indigenous governments.

Steps taken in 2025 by the federal government to prioritize nation-building projects and to focus on fiscal restraint have the potential to hamper the progress on collaboration and community energy made in the last several years. Recent legislation has raised serious concerns among Indigenous leadership about the federal governments commitment to respecting Indigenous rights and priorities, while calls from political leadership for spending cuts have left the future of critical funding programs in question.[40,41]

As the federal government evolves its priorities, it must not lose focus on collaboration, engagement, and government-to-government relationships with Indigenous peoples in remote communities. The federal government must leverage legislative reform mandated by UNDA to strengthen exiting collaboration avenues through national partnership tables and develop norms and requirements for Indigenous participation in policy and program design relating to the future of energy on their territories.

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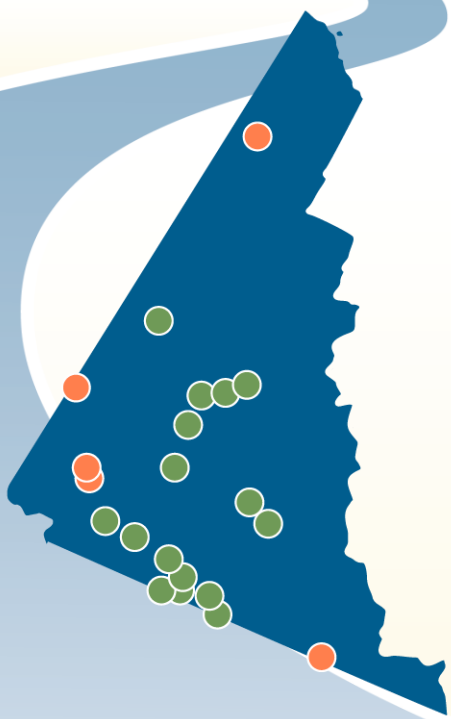
[39] *Kinship and Prosperity*, ix

[40] Emily Haws, "Discussion of major projects law expected to dominate AFN gathering," *The Globe and Mail*, September 1, 2025. https://www.theglobeandmail.com/politics/article-discussion-of-major-projects-law-expected-to-dominate-afn-gathering/

[41] Peter Zimonjic, "Carney's plan to cut tens of billions in spending is tough but doable, experts say," *CBC News*, July 12, 2025. https://www.cbc.ca/news/politics/carney-spending-review-cuts-1.7582889



- Regional Grid Community
- Diesel Microgrid Community

The Yukon

Most communities in the Yukon are powered by an isolated regional grid with no interconnections to the North American electrical grid, though there are also four diesel-powered microgrids, three of which have an operating renewable energy project.

Ambitious targets and policies that create a robust market for diesel-displacing projects have established the Yukon as a leading jurisdiction in remote clean energy. Despite this, the territory continues to wrestle with significant challenges including the need to respond to growing electrical demand, and several major clean energy projects facing funding shortfalls.

Collaboration with rights-holders	Platforms for collaboration exist, but more well-funded and coordinated opportunities for consensus building around policy development and planning are needed.	
Plans and strategies	Strong plan with ambitious targets for reducing greenhouse gas emissions for both the regional grid and remote grids.	
Funding and financing	Territorial funding is available but is insufficient for community-scale generation projects.	
Programs for efficient buildings	Robust programs for energy efficiency and demand management in remote communities.	
Independent power producer (IPP) market	Well-defined and transparent IPP market with a good incentive to develop projects.	

Restoring the flow: the Yukon

As the Yukon strives to achieve its ambitious climate goals and transition to a clean energy future, its unique energy landscape presents both significant challenges and opportunities. Most of the population is served by a single, isolated electrical grid, the Yukon Integrated System (the main grid), which is largely hydro powered but also relies on diesel and liquified natural gas to meet energy demand. Additionally, there are five remote communities not connected to the main grid that are served by four isolated diesel generation systems.

The Yukon has two electric utilities, both of which are regulated by the Yukon Utilities Board. The Yukon Energy Corporation (Yukon Energy) is responsible for approximately 85% of the Yukon's total generation capacity, primarily through its three hydrogeneration facilities.[42,43] The other utility, ATCO Electric Yukon, owns and operates some generation capacity on the main grid, as well as the diesel generation and distribution facilities in the off-grid communities.[44] The Yukon government's Department of Energy, Mines and Resources develops energy policy and provides Yukoners with energy programs, expertise, and assistance.[45] The Yukon Development Corporation, a Crown corporation owned by the territory and the parent company of Yukon Energy, is responsible for ensuring the adequate provision of energy to promote economic development in the territory, and more recently has taken on responsibilities for energy policy development.[46,47]

Leadership on climate action and the clean energy transition by the Yukon First Nations was instrumental in shaping a supportive environment for community-owned renewable energy, which in turn has spurred numerous clean energy projects throughout the territory. Some initial targets for renewable energy generation on the main grid have been achieved in recent years, and significant progress is being made towards community-owned renewables on the remote diesel grids.

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[42] Yukon Bureau of Statistics, *Yukon Energy Facts 2023* (2024), 1. https://yukon.ca/sites/default/files/ybs/fin-yukon-energy-facts-2023.pdf

[43] Yukon Energy, *2023 Annual Report: October 2024 update* (2024), 8. https://yukonenergy.ca/media/site_documents/YEN24051_rpt_annual23_Oct24Update_web.pdf

[44] ATCO Electric Yukon, "About Us." https://www.atcoelectricyukon.com/en-ca/about-us/service-area.html

[45] Government of Yukon, "Department of Energy, Mines and Resources." https://yukon.ca/en/department-energy-mines-resources

[46] Government of Yukon, *Yukon Development Corporation Protocol Agreement and Letter of Expectation 2020-2021* (2022), 3. https://yukon.ca/sites/default/files/ecdev/e1_-_yg-ydc_potocol_agreement_and_shareholder_letter_of_expectation.pdf

[47] Government of Yukon, *Yukon Development Corporation Annual Report 2023* (2024), 11. https://yukon.ca/sites/default/files/2025-05/yukon-development-corporation-2023-annual-report.pdf

Photo: Julia Sterling, Pembina Institute, Whitehorse, YT, 2022.

Collaboration with rights-holders

The Yukon has a strong foundation for Indigenous co-governance; in 1993 the Umbrella Final Agreement established the framework for Yukon First Nations to negotiate their own Final Agreements and self government agreements with the territory and the crown, of which 11 of 14 Yukon First Nations have completed.[48] These modern treaties form the basis for reconciliation in the territory and lay the groundwork for the involvement of Yukon First Nations in the territory's energy sector, and ensure that Yukon First Nations are represented on the boards of directors of the Yukon Development Corporation and Yukon Energy.[49] While there isn't a specific program to build capacity to participate in the energy sector, projects related to energy are eligible for funding from the Training Policy Committee, a funding body established under the Umbrella Final Agreement.[50]

There are several energy forums and working groups in the Yukon that bring together a range of parties interested in the territory's energy supply and demand, and both utilities engage with Yukon First Nations on a bilateral basis. However, there is currently no formal, recurring opportunity for Yukon First Nations to collaborate with the Yukon government, Yukon Development Corporation and the utilities on energy policy and strategic planning.

Until recently, Yukon First Nations largely worked independently of one another to advance independent power producer projects and respond to energy planning proposals of the Yukon government and utilities. A new initiative, the First Nation Energy Working Group, formed in 2023 following an energy leadership summit hosted by the Council of Yukon First Nations (CYFN). The group represents an emerging opportunity for Yukon First Nations to collaborate, share knowledge and support one another as First Nation involvement in the clean energy sector grows. Further collaboration with government is led through the Council of Yukon First Nations Chiefs' Committee on Energy, which provides strategic direction, political support and guidance to the working group and CYFN Leadership, and conducts strategic, high-level discussions with officials of various levels of government and the utilities.

Platforms for collaboration exist, but more well-funded and coordinated opportunities for consensus building around policy development and planning are needed.

[48] Government of Yukon, "Agreements with First Nations." https://yukon.ca/en/your-government/government-government-relations/agreements-first-nations

[49] Government of Canada, *Umbrella Final Agreement Between the Government of Canada, the Council for Yukon Indians and the Government of the Yukon* (1993), 252-253. https://cyfn.ca/wp-content/uploads/2013/08/umbrella-final-agreement.pdf

[50] Training Policy Committee, "About TPC." https://www.tpcyukon.ca/about/about-about-tpc

Plans and strategies

The Government of Yukon's 2020 climate change strategy — Our Clean Future: A Yukon strategy for climate change, energy and a green economy — sets priorities for reducing the territory's greenhouse gas emissions.[51] The strategy includes a target of reducing emissions by 30% from the 2010 level, which was amended to 45% and enshrined in the Yukon's Clean Energy Act.[52] The act requires the Yukon government to report annual progress towards the emissions reduction target.

In addition to its emissions reduction target, the Yukon government has committed to developing legislation that will require 93% of electricity generated on the main grid to come from renewable sources. On its remote diesel grids, the government has set a goal to reduce the amount of diesel used for electricity generation by 30% by 2030, with one operating independent power project in each community. The territory also plans to replace 20% of the diesel used to generate electricity on both the main grid and the remote grids with clean diesel alternatives, such as biodiesel and renewable diesel.[53]

The Yukon Development Corporation is currently developing a resource plan that will outline how the Yukon will meet its climate goals for electricity on the main grid by 2050, while also planning for greater peak energy demands, which are estimated to rise by 50% by 2035 compared to 2020.[54]

Strong plan with ambitious targets for reducing greenhouse gas emissions for both the regional grid and remote grids.

[51] Government of Yukon. *Our Clean Future: A Yukon strategy for climate change, energy and a green economy* (2023). https://our-clean-future.yukon.ca/sites/default/files/2023-10/env-our-clean-future.pdf

[52] Government of the Yukon, *Clean Energy Act*, S.Y. 2022, c. 14. https://laws.yukon.ca/cms/images/LEGISLATION/acts/2022-0014.pdf

[53] *Our Clean Future*, 47–48.

[54] Yukon Energy, *Building a Resilient and Renewable Energy Future: Chapter 1 – A Reliable and Robust Grid: Reinforcing our Foundation* (2025), 11. https://yukonenergy.ca/media/site_documents/Electricity_Planning/Yukon-Energy-Chapter-1-2025-2030.pdf

Community project funding and financing

The Yukon's main funding program for community projects is the Innovative Renewable Energy Initiative (IREI). IREI provides funds in support of sustainable energy solutions with a focus on local and Indigenous leadership. The program funds up to 75% of eligible project costs (to a maximum of $500,000) and encourages Yukon-based public and private organizations, including First Nation governments and development corporations, to pursue renewable energy projects.[55]

This initiative provides critical early-stage funding for community projects, but the funding is quickly exhausted if it is used for larger, community-scale generation projects where costs exceed the IREI maximum.

Some diesel reducing projects also receive funding through the Arctic Energy Fund (AEF), a federal funding initiative administered by the Yukon Government.[56]

Territorial funding is available but is insufficient for community-scale generation projects.

[55] Government of Yukon, "Apply for funding for community renewable energy projects." https://yukon.ca/en/innovative-renewable-energy-initiative

[56] Government of Yukon, *Yukon Development Corporation: 2023 Annual Report,* 9. https://yukonassembly.ca/sites/default/files/2024-10/sp-35-1-164-ydc-2023.pdf

Programs for efficient buildings

As part of its 2020 climate strategy, the Yukon government committed to investing $30 million annually in energy retrofits for homes and buildings.[57] The territory's "Good Energy" program offers funding for energy upgrades to existing buildings and rebates for both upgrades and energy-efficient new home construction. Among the items that the program supports are solar hot water systems, energy efficient appliances, and heat pumps and wood/biomass heating systems.[58]

The Yukon's Peak Smart Home program is a demand-side management initiative to reduce peak power demand on the territory's main grid during the winter months, reducing reliance on diesel generation. Homeowners can receive up to 75% of the purchase and installation costs of smart thermostats and hot water tank controllers that can be adjusted by the utility to reduce energy use during peak energy demand.[59,60,61]

The Yukon has had a micro-generation policy since 2013 that allows homeowners, businesses and industry to offset their energy consumption by connecting small scale renewable projects to the grid. Unlike other jurisdictions in Canada, the price paid for surplus electricity exported to the grid is based on the avoided cost of new electrical generation, rather than the subsidized price consumers pay for their power, with a higher rate paid for power exported to the grid in the diesel communities.[62] This created a strong incentive for micro-generation, and the policy resulted in a rapid buildout of solar on the main grid, meeting the program's target of 7MW deployed by 2030 seven years early. This influx of intermittent power resulted in challenges with grid stability, and the program has been put on hold while the utility and the government conduct the necessary technical analysis and upgrades to support more solar on the grid.[63]

Robust programs for energy efficiency and demand management in remote communities.

[57] *Our Clean Future*, 40.

[58] Government of Yukon, "Good Energy Rebates." https://yukon.ca/en/good-energy-rebates

[59] Yukon Energy, "About Peak Smart: how the programs work." https://yukonenergy.ca/energy-in-yukon/saving-energy/peak-smart/about

[60] ATCO Electric Yukon, "Peak Smart: Be part of the change and help build Yukon's sustainable energy future." https://www.atcoelectricyukon.com/content/dam/web/electric-yukon/peaksmart-brochure.pdf

[61] Patrick Egwu, "Yukon Energy offers home energy use program," Yukon News, November 10, 2023. https://www.yukon-news.com/local-news/yukon-energy-offers-home-energy-use-program-7113068

[62] Government of Yukon, *Micro-generation Policy* (2021). https://yukon.ca/sites/default/files/emr/emr-micro-generation-policy.pdf

[63] Government of Yukon, "Government of Yukon working with public utilities to ensure Yukon grid remains reliable as intermittent renewables increase," news release, December 14, 2023. https://yukon.ca/en/news/government-yukon-working-public-utilities-ensure-yukon-grid-remains-reliable-intermittent

Independent power producer (IPP) market

The Yukon was the first jurisdiction in the North to develop an IPP policy, a recommendation made in its 2009 energy strategy.[64] The Yukon's policy and regulatory framework is notable for its support of Indigenous-led IPP projects and a transparent formula for determining fair electricity purchase rates, in addition to a regulatory provision that allows utilities to recover expenses related to purchasing electricity from IPPs.[65,66]

The goal of the Yukon's IPP policy is to encourage IPPs to develop and expand environmentally sound and affordable electrical supply options. The policy aims to develop local renewable energy to replace diesel and create economic opportunities for First Nations communities, including achieving economic self-reliance. The policy sets two targets: to have 10% of new electricity demand in the territory met by IPPs, and for at least 50% of IPP projects to involve Yukon First Nations ownership.[67]

On the Yukon's main grid, the price for electricity under electricity purchase agreements is based on the average blended fuel price per kilowatt-hour for thermal generation, as most recently approved by the Yukon Utilities Board, and is adjusted annually for inflation. On the diesel grids, the price for electricity is based on the fuel cost for diesel generation over the previous five years, plus any cost savings from reductions in maintenance, capital or other diesel-generation costs.

Well-defined and transparent IPP market with a good incentive to develop projects.

[64] Government of Yukon, *Energy Strategy for Yukon* (2009), 17. https://yukon.ca/sites/default/files/emr/emr-energy-strategy-for-yukon.pdf

[65] Government of Yukon, *Yukon's Independent Power Production Policy* (2018). https://yukon.ca/sites/yukon.ca/files/emr/emr-yukon-independent-power-production-policy.pdf

[66] Yukon Executive Council, *Direction to the Yukon Utilities Board (Independent Power Production),* O.I.C. 2019/25. https://yukonutilitiesboard.yk.ca/pdf/OICs/OIC_2019-25.pdf

[67] *Yukon's Independent Power Production Policy*, 5.

Community outcomes

Yukon First Nations have been quick to realize opportunities for clean energy with the help of federal funding programs and have been trailblazers for how to bring community clean energy online in remote microgrids. As of summer 2025, there is an Indigenous-owned IPP project in development or fully operational on each of the diesel grids, as well as several on the main grid.

The Vuntut Gwitchin First Nation's Sree Vyàa solar project in Old Crow, commissioned in 2021, established a template for electricity purchase agreements in the Yukon. It was the first project in the North that enabled an IPP to meet 100% of a remote community's electricity demand with renewable energy and temporarily shut off the diesel generators.[68]

In 2023, the Teslin Tlingit Council began selling heat from its successful waste-wood biomass facility through a first-of-its kind heat purchase agreement with the Yukon government.[69]

The 4 MW Haeckel Hill-Thay T'äw Wind Energy Project is the first wholly Indigenous-owned wind energy project in the north and began feeding the Yukon's main grid in March 2024.[70]

The Kluane First Nation's 900 kW Lhù'áán Mân N'tsi wind project and White River First Nation's 1.9 MW Saa/Se Energy Project both switched on in April 2025, allowing each community to enjoy extended diesel-off periods.[71,72]

The Sādę Solar Initiative project in Watson Lake is a 2.85 MW solar farm in development with expected commissioning in 2027.[73]

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[68] Anna Desmarais, "How Old Crow's solar farm is changing green energy projects in Yukon," *CBC News,* 2022. https://www.cbc.ca/news/canada/north/old-crow-solar-farm-changing-green-energy-projects-yukon-1.6434746

[69] Government of Yukon, "Government of Yukon and Teslin Tlingit Council sign heat purchase agreement for biomass at Khàtìnas.àxh School in Teslin," news release, August 22, 2023. https://yukon.ca/en/news/government-yukon-and-teslin-tlingit-council-sign-heat-purchase-agreement-biomass-khatinasaxh

[70] Northern Energy Capital, "Haeckel Hill-Thay T'äw Wind Energy Project," 2025. https://www.northernenergycapital.com/haeckel-hill-wind-project

[71] Sara Connors, "Kluane First Nation now harnessing wind energy to help power community, reduce reliance on diesel," APTN News, May 15, 2025. https://www.aptnnews.ca/national-news/kluane-first-nation-now-harnessing-wind-energy-to-help-power-community-reduce-reliance-on-diesel/

[72] Jake Howarth, "Beaver Creek in the Yukon goes diesel-free with solar power," July 19, 2025. https://www.yukon-news.com/news/beaver-creek-in-the-yukon-goes-diesel-free-with-solar-power-8140684

[73] Chris MacIntyre, "Watson Lake expecting new solar project to reduce diesel by a million litres a year," June 25, 2025. https://www.cbc.ca/news/canada/north/watson-lake-expecting-new-solar-project-to-reduce-diesel-by-a-million-litres-a-year-1.7569563

Priorities for action

Yukon Energy's most recent five-year plan (published in 2025) identifies adding diesel infrastructure and doing upgrades on existing hydro and diesel infrastructure to provide dependable winter capacity and meet increased demand for electricity.[74] The utility and the Yukon government maintain these investments are necessary in order to accommodate higher levels of renewable energy on the grid in the future.[75] With that understanding, the Yukon must prioritize the development of a long-term strategy for continued decarbonization while keeping pace with rising demand and maintaining grid stability.

The territory is also seeking to increase its firm power supply through renewable energy imports, with a long-standing commitment with the Taku River Tlingit First Nation to purchase power from the Atlin Hydroelectric Expansion Project, which still has a funding gap of roughly $90 million.[76] Another option being pursued for firm power supply is a grid intertie to B.C., which could have a cost upwards of $3 billion.[77] These projects require additional funding support; the Yukon government should determine how best to allocate resources to these initiatives and other clean energy programs, and ensure all rights holders are included in the decision making process.

Though the supportive policy environment for independent power production has resulted in a number of community-led projects, further diesel reduction will require collaborative planning and policy development between the territory, the First Nations, the Yukon Development corporation, and the utilities. This collaboration will help to build consensus about the necessary steps to ensure grid stability while still furthering community goals with respect to renewable energy and diesel reduction.

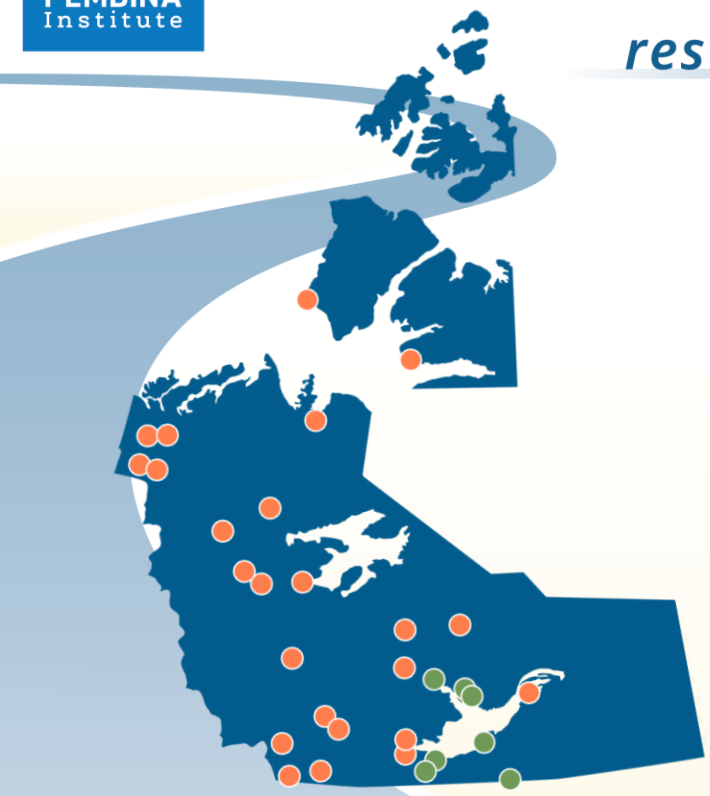
[74] Yukon Energy, *Building a Resilient and Renewable Energy Future: Yukon Energy's Road Map to 2050* (2025), 14. https://yukonenergy.ca/media/site_documents/Electricity_Planning/Yukon-Energy-Road-Map-to-2050.pdf

[75] CBC News, "Yukon Energy pitches $100M plan for new fossil-fuel plants in Whitehorse," April 10, 2025. https://www.cbc.ca/news/canada/north/yukon-energy-pitches-100m-plan-for-new-fossil-fuel-plants-in-whitehorse-1.7507196

[76] Chris MacIntyre, "Atlin hydro expansion project is 'shovel-ready,' but still $86M short," *CBC News,* October 26, 2024. https://www.cbc.ca/news/canada/north/atlin-hydro-expansion-shovel-ready-1.7364158

[77] Chris Windeyer, "Is the Yukon's ambitious plan to connect to B.C.'s power grid even a good idea?" *CBC News,* June 7, 2025. https://www.cbc.ca/news/canada/north/yukon-bc-power-grid-analysis-1.7552201

Photo: Pembina Institute/Archbould Photography. Whitehorse, YT, 2025.



- Regional Grid Community
- Diesel Microgrid Community

Northwest Territories

The Northwest Territories has two regional hydro grids serving most of the territory's population, as well as 25 diesel-powered community microgrids.

Indigenous peoples have been taking steps to advance clean energy in the NWT, with many communities developing community energy plans and several advancing ambitious renewable energy projects despite significant barriers. Recent direction from the government signals promising changes in support of community-led clean energy.

Collaboration with rights-holders	Platforms for collaboration exist and commitment to UNDRIP is in legislation, but territorial funding and more focus on community energy is needed.
Plans and strategies	Net-zero target has been set but outcomes depend heavily on priorities set in the upcoming energy and climate strategy.
Funding and financing	Funding is available, but programs only cover a portion of project costs and the funding for capacity has a limited timeline.
Programs for efficient buildings	Well-designed programs for efficient buildings exist, but more consistent funding and long-term policy certainty are needed.
Independent power producer (IPP) market	Currently limited market for community energy projects; IPP policy under development as of 2025.

Restoring the flow: Northwest Territories

The Northwest Territories (NWT) is home to approximately 45,000 people, half of which are Indigenous.[78] The NWT's power system is made of two zones. The "hydro zone," which consists of two hydroelectric grids that supply about 71% of the territory's community electricity, and the "thermal zone," which is 25 isolated diesel and natural gas power plants that account for 21% and 8% of community electricity, respectively.[79]

Communities and governments have been taking steps to advance clean energy in the NWT, with several communities having developed community energy plans and renewable energy projects. However, persistent barriers such as high project costs, a lack of an independent power producer policy, and capacity constraint hamper progress. In April 2025, the territorial government issued 11 policy directives to the NWT's regulator of utilities, the Public Utilities Board (PUB), to support the transition to renewable energy by modernizing electricity regulation and planning, which promise to transform the energy landscape and create more opportunities for community-led projects.[80]

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[78] Statistics Canada, "2021 Census of Population," December 16, 2022. https://www12.statcan.gc.ca/census-recensement/2021/as-sa/fogs-spg/page.cfm?lang=E&topic=8&dguid=2021A000261

[79] Government of Northwest Territories, *Energy Initiatives Report: Reporting on Actions under the 2030 Energy Strategy, 2022–2023* (2024). https://www.inf.gov.nt.ca/sites/inf/files/resources/121-ei_report_2023_web.pdf

[80] Government of Northwest Territories, "Improving how electricity works for people and communities in the NWT," news release, April 17, 2025. https://www.gov.nt.ca/en/newsroom/improving-how-electricity-works-people-and-communities-nwt

Photo: Green Sun Rising, Colville Lake, NT, Oct 2015.

Collaboration with rights-holders

The Government of the NWT (GNWT) formally works with the seven regional Indigenous governments and three community-based Indigenous governments through the NWT Council of Leaders, but this forum has not historically focused on energy policy.[81] However, there are other groups, such as the Climate Change Council and the NWT Youth Climate Change Council, that share information and facilitate collaboration on the development of the NWT's climate and energy plans, though these groups have historically focused more on climate adaptation than energy.

Discussions about energy are happening in other forums. The Northwest Territories Association of Communities, a non-profit organization that represents the interests of all 33 communities in the territory, established an energy partnership table in 2023 to exchange information, share resources, and further community and regional energy priorities.[82]

In 2023, the GNWT enacted the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) Implementation Act, which affirms UNDRIP and commits to formally adopting its principles in all the territory's laws.[83] This is a positive step towards building a stronger base for co-governance and collaboration on energy policy.

Platforms for collaboration exist and commitment to UNDRIP is in legislation, but territorial funding and more focus on community energy is needed.

[81] Executive and Indigenous Affairs, "Indigenous Governments," *Government of the Northwest Territories.* https://www.eia.gov.nt.ca/en/indigenous-governments

[82] NWT Association of Communities, "Energy Partnership Table." https://energy.toolkitnwtac.com/

[83] Government of Northwest Territories, "Consistency of laws with UNDRIP Implementation Act," 2023. https://www.justice.gov.nt.ca/en/legislation/consistency-of-laws-with-undrip-implementation-act/

Plans and strategies

The 2030 NWT Climate Change Strategic Framework sets the GNWT's overall approach to address climate change. This framework is complemented by the 2030 Energy Strategy, released in 2018, which is the main mechanism to meet the territory's goal of reducing greenhouse gas emissions 30% below 2005 levels by 2030 and includes six strategic objectives.

One of these objectives is specific to the thermal zone: "Reduce GHG [greenhouse gas] from electricity generation in diesel-powered communities by an average of 25%."[84] How to achieve these objectives is set out in three-year energy action plans, and progress is reported annually in energy initiatives reports.[85]

In October 2024, the GNWT announced a territorial target of net-zero emissions by 2050 — the details of how this will be met are expected to be provided in a new energy and climate strategy to be released in 2026.[86] This strategy takes a new joint approach between the Departments of Infrastructure and Environment and Climate Change.[87] In July 2025, the PUB began to solicit input on the development of an Integrated Power Systems Plan (IPSP), which is being created to coordinate long-term and cost-effective infrastructure investment, renewable energy integration, and decarbonization strategies.[88] This plan is integral to the success of aligning the territory's energy supply and demand with a net-zero emissions target while taking into account the impacts of climate change on energy.

Net-zero target has been set but outcomes depend heavily on priorities set in the upcoming energy and climate strategy.

[84] Government of Northwest Territories, *2030 Energy Strategy* (2018), 13. https://www.inf.gov.nt.ca/sites/inf/files/resources/gnwt_inf_7272_energy_strategy_web-eng.pdf

[85] Government of Northwest Territories, *2023-2024 Energy Initiatives Report* (2025). https://www.inf.gov.nt.ca/sites/inf/files/resources/2023-24-ei-report_-web.pdf

[86] Liny Lamberink, "N.W.T. gov't commits to reaching net-zero emissions by 2050," *CBC News*, October 17, 2024. https://www.cbc.ca/news/canada/north/n-w-t-gov-t-commits-to-reaching-net-zero-emissions-by-2050-1.7354938

[87] Government of the Northwest Territories, "Caroline Wawzonek: Government of the Northwest Territories' New Approach to Energy and Climate Change," May 28, 2025. https://www.gov.nt.ca/en/newsroom/caroline-wawzonek-government-northwest-territories-new-approach-energy-and-climate-change

[88] The Northwest Territories Public Utilities Board, *Re: Board Initiated Proceedings for Consideration of the Electricity Policy Direction Dated April 16, 2025-Proceedings ID 2025-04* (2025). https://nwtpublicutilitiesboard.ca:81/Documents/Board%20Letter%20dated%20Jul%207,%202025%20Proceeding%202025-04.pdf

Community project funding and financing

Between 2018 and 2024, the GNWT invested $195 million to supporting the objectives of the 2030 Energy Strategy.[89] The territory's primary mechanisms for distributing the funds are through the Arctic Energy Alliance (described below) and the GHG Grant Program, which is divided into two streams. The government stream is available to community governments, municipalities, GNWT departments, as well as Indigenous governments and organizations, and funds up to 75% of total project costs for biomass boilers, biomass district heating systems, renewable electricity, and transportation initiatives.[90] The buildings and industry stream is open to businesses and non-profit and funds up to 25% and 40% of total project costs, respectively.[91]

Historically, the GNWT has also administered funding that was allocated through the federal government's Investing in Canada Infrastructure Program (ICIP) and Low Carbon Economy Fund (LCEF). However, these funds have now been fully disbursed; the territorial government is evaluating new federal funding opportunities for meeting clean energy investment needs.[92]

The Arctic Energy Alliance (AEA), a non-profit funded by the NWT government, provides similar grants for projects in communities across the NWT. Residents are eligible to receive up to $20,000 for project costs, and businesses, community governments, Indigenous governments and non-profit organizations up to $50,000.[93] The AEA also runs the Community Energy Planning Project, which provides funding and mentorship for community energy champions who are responsible for community energy planning and an developing an implementation plan for a community energy initiative.[94] Unfortunately, the program only runs for six months and does not support long-term capacity to fully implement community energy objectives.

Funding is available, but programs only cover a portion of project costs and the funding for capacity has a limited timeline.

[89] Government of Northwest Territories, *Energy Initiatives Report 2023-2024* (2025), 24. https://www.inf.gov.nt.ca/sites/inf/files/resources/2023-24-ei-report_-web.pdf

[90] *Energy Initiatives Report*, 32.

[91] Government of Northwest Territories, *Energy Initiatives Report* (2023), 32. https://www.inf.gov.nt.ca/sites/inf/files/resources/121-ei_report_2023_web.pdf

[92] Ollie Williams, "'No new sources' to replenish Arctic Energy Alliance funds," *Cabin Radio*, March 5, 2025. https://cabinradio.ca/226160/news/politics/no-new-sources-to-replenish-arctic-energy-alliance-funds/

[93] Arctic Energy Alliance, "Renewable Energy." https://aea.nt.ca/program/renewable-energy/

[94] Arctic Energy Alliance, "Call for Expressions of Interest - Community Energy Planning," media release, August 12, 2024. https://aea.nt.ca/news/call-for-expressions-of-interest-community-energy-planning-project-2/

Programs for efficient buildings

Funding for energy efficiency and building upgrades is delivered through the AEA, which historically has offered robust programs with high uptake across the territory. In 2023-2024, the AEA issued 3,024 incentives worth $2.5 million, saving 1,300 megawatt-hours of energy and reducing emissions by 1.5 kilotonnes of CO_2e.[95] These rebates covered energy efficient product purchases, energy evaluations, building improvements, and electric vehicle purchases.

The NWT is a leader on biomass heating in Canada, second only to Quebec.[96] The AEA's Community Wood Stove Program, which provides homeowners with wood stoves through partnerships with community organizations, has been quite successful, with 26 stoves being installed in 2022-23.[97]

Unfortunately, the AEA has announced several changes for the 2025-26 fiscal year due to financial constraints, with several rebates being reduced or no longer available.[98] This is a result of a gap in funding, which was previously met by the federal government's Low Carbon Economy Fund. The GNWT has no plans to replace this funding since it does not have the financial resources to do so; however, the GNWT is seeking federal funding to continue supporting this program.[99]

The territory has had a net metering program since 2014, which allows utility customers to install renewable energy generators smaller than 15 kW.[100] The program has been extremely popular in the NWT, though future uptake may be impacted by the direction given by the GNWT to the PUB in April 2025 to lower the rate in the net metering program, since "non-utility intermittent power producers are likely being overcompensated for the power they provide to the system."[101]

Well-designed programs for efficient buildings exist, but more consistent funding and long-term policy certainty are needed.

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[95] *Energy Initiatives Report, 2022-2023*, 10.

[96] Natural Resources Canada, *2023 Canadian Bioheat Database: Community, Commercial, and Institutional Bioheat Installations in Canada* (2023), 4. https://natural-resources.canada.ca/sites/nrcan/files/energy/pdf/2023%20Canadian%20bioheat%20survey%20update%20by%20CanmetENERGY_NRCan.pdf

[97] Arctic Energy Alliance, *2022/23 Annual Report* (2023), 6. https://aea.nt.ca/news/2022-23-annual-report/

[98] Arctic Energy Alliance, "Energy-efficient products." https://aea.nt.ca/program/energy-efficient-products/

[99] Cabin Radio, "'No new sources' to replenish Arctic Energy Alliance funds." https://cabinradio.ca/226160/news/politics/no-new-sources-to-replenish-arctic-energy-alliance-funds/

[100] Northwest Territories Power Corporation, "Net Metering." https://www.ntpc.com/customer-service/net-metering

[101] Government of the Northwest Territories, *2025 Electricity Policy Direction the NWT Public Utilities Board* (2025). https://www.inf.gov.nt.ca/sites/inf/files/2025-04-16-2025-electricity_policy_direction_the_nwt_public_utilities_board.pdf

Independent power producer (IPP) market

The territory does not have a formal IPP policy, but NTPC has four PPAs with Indigenous-led IPPs.[102] All four projects are solar photovoltaic installations, with a combined capacity of 1,231 kW.[103] The power purchase prices were all set according to the avoided cost of diesel.[104] These PPAs and are all between NTPC and Indigenous-owned businesses.

In 2025 the GNWT has directed the PUB to develop an IPP policy that prioritizes community and Indigenous ownership and transparency in power purchase agreements (PPAs).[105]

There is currently a 20% limit for intermittent renewable energy generation in individual thermal zone communities based on the annual average community energy demand.[106] The limit on intermittent renewable energy generation includes net metering, IPP, and utility-owned projects. It was put in place to mitigate concerns around electricity system reliability. This limit is set to increase to 30%, potentially more with the addition of batteries, in 2025.[107]

Some communities are pushing past this 20% limit by including energy storage. Inuvik, which has a 3.5 MW wind project and over 1 MW of solar photovoltaic installed, was able to exceed the cap on intermittent renewables by adding a battery alongside the wind project.

Currently limited market for community energy projects; IPP policy under development as of 2025.

[102] Government of Northwest Territories, *Energy Initiatives Report* (2022). https://www.inf.gov.nt.ca/sites/inf/files/resources/121-ei_report_2023_web.pdf

[103] *Energy Action Plan 2022-2025*.

[104] Northwest Territories Power Corporation, *NTPC 2022-23 General Rate Application* (2022). https://nwtpublicutilitiesboard.ca:81/Documents/Exhibit%202022-001-023%20Northwest%20Territories%20Power%20Corporation%20Responses%20to%20all%20Information%20Requests.pdf

[105] Government of Northwest Territories, "Improving how electricity works for people and communities in the NWT," news release, April 17, 2025. https://www.gov.nt.ca/en/newsroom/improving-how-electricity-works-people-and-communities-nwt

[106] Northwest Territories Public Utilities Board, *Decision NTPC NUL Net Metering Application Revised Jan 21* (2014), 2. https://nwtpublicutilitiesboard.ca:81/Documents/1-2014%20DECISION%20NTPC%20NUL%202013%20Net%20Metering%20Applications_0.pdf

[107] "Improving how electricity works."

Community outcomes

Communities in the NWT are clear in their clean energy ambitions, with several Indigenous-owned renewable energy projects operating or in development, and many community energy plans in place. Much of this progress is supported by the training and hiring of community energy champions through the federally run Indigenous Off-Diesel Initiative and the AEA's Community Energy Planning Project.

Several NWT communities have operating renewable energy projects. Many communities are exploring implementing new electricity generation projects, for example Paulatuk's project to implement solar, wind, and battery storage.[108,109]

Other Indigenous governments, such as the Yellowknives Dene First Nation, are in early stages of evaluating renewable energy opportunities in their territory.[110] Some communities are choosing to focus on energy efficiency and woodstoves rather than renewables, such as those in the Dehcho Region.[111,112] Two persistent challenges to completing renewable energy projects have been (1) securing sustainable, long-term funding to carry out community energy plans, particularly once the current round of funding has ended, and (2) a lack of community capacity to implement the energy plans.

[108] Northwest Territories Power Corporation, *Net Metering Capacity by Community* (2024). https://www.ntpc.com/sites/default/files/2024-06/Net%20Metering%20Capacity%20by%20Community%20-%20June%203%2C%202024.pdf

[109] Chloe Williams, "Paulatuk's long road to 100-percent renewable energy," *Cabin Radio*, May 27, 2024. https://cabinradio.ca/184650/news/beaufort-delta/paulatuk/paulatuks-long-road-to-reaching-100-percent-renewable-energy/

[110] Ollie Williams, "Det'on Cho considers starting its own renewable energy project," *Cabin Radio*, February 6, 2025. https://cabinradio.ca/221639/news/yellowknife/deton-cho-considers-starting-its-own-renewable-energy-project/

[111] Government of Canada, *Minister Vandal announces funding to build a greener future in the Dehcho Region, creating jobs and making life more affordable* (2022). https://www.canada.ca/en/crown-indigenous-relations-northern-affairs/news/2022/10/minister-vandal-announces-funding-to-build-a-greener-future-in-the-dehcho-region-creating-jobs-and-making-life-more-affordable.html

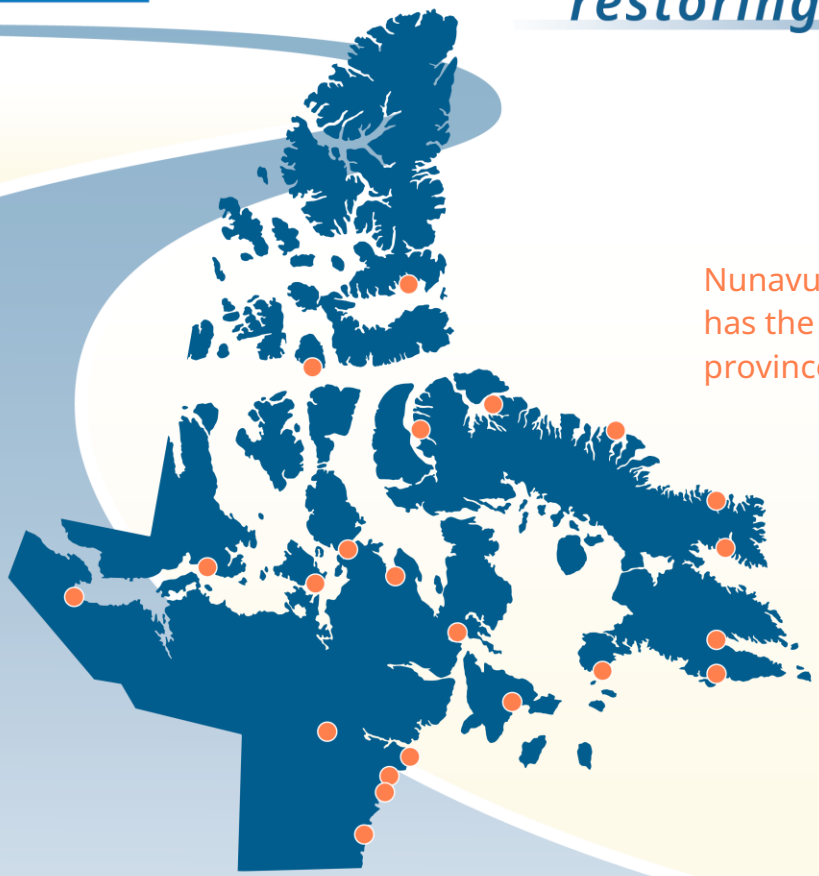
[112] Claire McFarlane, "New program gives free wood stoves to Dehcho residents," *Cabin Radio*, March 5, 2025. https://cabinradio.ca/225652/news/environment/new-program-give-free-wood-stoves-to-residents-in-the-dehcho/

Priorities for action

The territorial government's direction to the PUB in spring 2025 signalled a coming shift in opportunities available for renewable energy development in the NWT by directly addressing issues that have obstructed projects in the region and limited further development. It is paramount that Indigenous governments, communities, utilities, the PUB, and the GNWT work collaboratively and regularly to successfully implement these directives and establish an enabling framework as part of the new energy and climate change strategy.

The GNWT should focus on ensuring their existing programs are well supported with funding, offering long term capacity building opportunities for communities, and working with the utilities to implement technical upgrades to allow for higher levels of renewable energy on the thermal grids, such as energy storage.

Photo: Green Sun Rising, Sachs Harbour, NWT.



Diesel Microgrid Community

Nunavut

Nunavut is home to 25 isolated communities and has the highest diesel dependency of any province or territory.

Despite significant logistical, economic, and technical challenges with developing clean energy in the territory, Inuit in Nunavut are pursuing clean energy development and the Government of Nunavut is advancing innovative policies to support diesel-reducing projects.

Collaboration with rights-holders	Platforms exist for collaboration, but more capacity support, consensus building and focus on community energy is needed.
Plans and strategies	Promising umbrella policy on renewable energy, but a formal clean energy strategy is yet to be released.
Funding and financing	No dedicated territorial funding for community clean energy projects.
Programs for efficient buildings	Energy efficiency programs exist but upfront costs limit uptake.
Independent power producer (IPP) market	Clear policy with good incentive for clean energy, new subsidy is a strong step towards creating a successful IPP market.

Restoring the flow: Nunavut

Nunavut is home to 25 remote communities, known as hamlets, with no interconnections to neighbouring communities, provinces, or territories.[113] The territory is nearly 100% dependent on diesel to meet its electricity and heating needs, the highest diesel dependency of all the territories and provinces.[114] Inuit in Nunavut have been pursuing clean energy through their major development corporations and have ambitious plans for implementing renewables, though projects have faced major roadblocks and progress has been slow. Bringing renewable energy online in Nunavut is a major challenge for both proponents and the utility, with myriad technical, logistical and political barriers to overcome.

Significantly reducing diesel use in Nunavut is a complex challenge due to geographic isolation, high material costs, short construction seasons, aging infrastructure, limited funding, and constrained capacity for all actors. Policy reform to overcome these obstacles requires collaboration among many diverse actors, including the Government of Nunavut through its Climate Change Secretariat (CCS); the government-owned utility, Qulliq Energy Corporation (QEC); the regional Inuit associations and development corporations; and individual communities.

The CCS creates policies that enable partnerships among them to advance mutual goals. Notably, in May 2025 the Government of Nunavut implemented the Sustainable Energy Support Policy (SESP) which both triggers the evaluation of the climate change impacts of Government of Nunavut projects and activities and provides funding for renewable energy projects.

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[113] Nunavut Tunngavik, *Nunavut's Infrastructure Gap* (2020), 11. https://www.tunngavik.com/files/2020/10/2020.10.20-Nunavuts_Infrastructure_Gap_Report_vf.pdf

[114] Dave Lovekin et al., Diesel Reduction Progress in Remote Communities: Research Summary (Pembina Institute, 2020). https://www.pembina.org/pub/diesel-reduction-progress-remote-communities

Qulliq Energy Corporation, "Power in Nunavut." https://www.qec.nu.ca/power-nunavut

Photo: Emily He, Pembina Institute, Iqaluit, NU.

Collaboration with rights-holders

Nunavut became a territory in 1993 through the Nunavut Land Claims Agreement (the Nunavut Agreement) between the area's Inuit and the Government of Canada.[115] The Nunavut Agreement affirms the government's commitment to support the self-determination and economic, cultural and social development of Inuit in Nunavut.[116] The Nunavut Agreement also established Nunavut Tunngavik Incorporated (NTI) to represent Inuit across the territory and ensure that the promises made under the agreement are carried out.

Nunavut is made of three regions — Qikiqtaaluk, Kivalliq, and Kitikmeot — each with a regional Inuit association and an Inuit-owned regional development corporation. The NTI, regional associations, and regional development corporations actively work with the Government of Nunavut and industry on energy development, in addition to work in other sectors.

The Government of Nunavut implements energy policy in the territory, which involves regular meetings with NTI, the regional development corporations, and hamlets. These meetings are part of the requirements under Article 32 of the Nunavut Agreement, which establishes the right of Inuit to participate in the development of social and cultural policies, though the purview of these meetings is broad and not focused on clean energy policy.[117]

Despite these formal structures, there is not an efficient forum for collectively advancing energy policy reforms. Instead, engagement on clean energy occurs through bilateral working relationships and other informal channels. Given the presence of numerous rights-holders and stakeholders with potentially differing and occasionally competing priorities, this lack of a unified engagement structure makes consensus building difficult. As a result, the pathway to progress is unclear, slowing the pace of overarching reform.

Platforms for collaboration exist, but more capacity support, consensus building and focus on community energy is needed.

[115] Nunavut Tunngavik, "The Nunavut Agreement." https://nlca.tunngavik.com/

[116] Nunavut Tunngavik, *Nunavut's Infrastructure Gap* (2022). https://www.tunngavik.com/files/2020/10/2020.10.20-Nunavuts_Infrastructure_Gap_Report_vf.pdf

[117] Nunavut Tunngavik, "Article 32 Nunavut Social Developmental Council." https://nlca.tunngavik.com/?page_id=2659

Plans and strategies

Nunavut's most recent energy strategy was developed in 2007 and does not set an emissions or diesel reduction target for the territory.[118]

In spring 2025, the government passed the SESP, which creates an overarching framework for policies that shift the province away from diesel and towards renewable energy. It provides a new government subsidy to QEC to support community clean energy projects through higher power purchase agreement rates for clean energy. It also implements review processes to ensure that Government of Nunavut actions and decisions are aligned with sustainable energy considerations and the Government of Nunavut's strategic goals.[119] The umbrella policy signals the desire of the government to align government actors on community-led diesel reduction and could be a first step towards a more comprehensive strategy.

The utility, QEC, does not have a formal diesel reduction or renewable energy strategy but has been given the mandate from government to explore transitioning away from diesel wherever possible.[120]

Promising umbrella policy on renewable energy, but a formal clean energy strategy is yet to be released.

[118] Government of Nunavut, *Ikummatiit: The Government of Nunavut Energy Strategy* (2007). https://climatechangenunavut.ca/sites/default/files/ikummatiit_energy_strategy_english.pdf

[119] Nunavut Department of Energy, *Sustainable Energy Support Policy* (2024). https://www.gov.nu.ca/sites/default/files/policies-legislations/2025-04/Sustainable_Energy_Support_Policy_03__25.pdf

[120] Joelie Kaernek, minister responsible for the QEC, letter to Keith Peterson, September 26, 2023. Available at https://assembly.nu.ca/sites/default/files/2023-11/QEC%20Letter%20of%20Expectation%202023-2024%20-%20ENG.pdf

Community project funding and financing

Funding clean energy projects is a consistent challenge in Nunavut. Maintaining energy affordability and reliability has taken precedence over funding clean energy, the Government of Nunavut currently highly subsidizes the cost of diesel.

Funding for clean energy projects in the territory largely comes from federal programs, though some funding is provided directly to the Government of Nunavut, Inuit organizations like the NTI, and regional Inuit associations to disburse, though this funding is not dedicated to community clean energy and often not available for community projects.

The SESP does allocate some of the territory's budget towards clean energy, though the funding is not directly available for project development, instead it is a subsidy to the utility, QEC, to negotiate higher rates for clean energy, thus the impact is largely seen in the IPP market. The SESP also includes provisions for future programs supporting innovative energy solutions in the territory, but there is no funding to support the capital investments necessary to develop community-scale renewable energy projects.

No dedicated territorial funding for community clean energy projects.

Programs for efficient buildings

The Nunavut Housing Corporation, a public agency of the Government of Nunavut, offers programs for building upgrades, with financial assistance available. These programs include the Home Renovation Program, which offers forgivable loans for renovation work or a grant of 50% of eligible project costs if the homeowner does the work themselves; and the Renewable Energy Homeowner Grant Program, which supports home solar and storage installations.[121]

There are also programs to support small scale generation on buildings. Net Metering Program allows residential customers and one municipal account per community to generate their own electricity from renewable energy systems smaller than 15 kW.[122] The CCS offers the Renewable Energy Cabin Grant, which provides up to $5,000 for small solar installations on off-grid cabins.[123]

While these programs form a solid foundation to incentivize energy efficient upgrades, they are more commonly leveraged by residents in the larger population centres due to high upfront costs.

The Nunavut Housing Corporation has been carrying out a plan to significantly increase housing with new builds and is prioritizing procuring energy efficient materials, but there are no territorial standards for energy efficiency or harmonization with existing programs or funding.[124]

Energy efficiency programs exist but upfront costs limit uptake.

[121] Nunavut Housing Corporation, "Homeownership Support - Suite of Programs." https://www.nunavuthousing.ca/programs/homeownership

[122] Qulliq Energy Corporation, *Net Metering Frequently Asked Questions*. https://www.qec.nu.ca/sites/default/files/2020-07_qec_net_metering_frequently_asked_questions_cw-july2.pdf

[123] Nunavut Climate Change Secretariat, "Renewable Energy Cabin Grant Program Guide." https://climatechangenunavut.ca/en/renewable-energy-cabin-grant-program-guide

[124] Nunavut Housing Corporation, *Igluliuqatigiingniq Today and Tomorrow: Implementing the National Housing Strategy for Nunavut Housing Action Plan 2025-2028*, 25. https://different-basket-89cd87b086.media.strapiapp.com/CMHC_NHC_Action_Plan_CHB_SGBV_1745d6b803.pdf

Independent power producer (IPP) market

Nunavut's IPP policy came into effect in late 2023, with an additional price support measure introduced in 2025.[125] Project proponents argued that the original IPP policy had an unsustainable cost model that constrained project development; the price of clean energy was set at the avoided cost of diesel, which was too low to make renewable projects viable since the diesel fuel was heavily subsidized.

A 2021 study commissioned by QEC outlined a series of recommendations for increasing revenue for renewable energy projects. These included factoring in avoided government subsidies for diesel, raising purchase rates for Inuit-owned projects, and valuing broader economic and social benefits.[126]

The SESP has introduced a top-up subsidy for QEC to enable the utility to provide higher power purchase agreement (PPA) rates for renewable energy than the avoided cost of diesel.[127] The expected price set out under PPAs with the SESP subsidy is expected to be in the range of $0.55 per kilowatt-hour, which is more than double the rate under the initial IPP policy, and the CCS will publish and maintain a cost calculator to assist with setting a baseline fair rate for project negotiations.

QEC is supportive of bringing renewable energy online, but faces challenges related to grid stability. For this reason, the utility has a limit on the amount of renewable energy penetration on each community microgrid and requires project proponents to pay for any system upgrades or storage needed to integrate their project. Even with these constraints, the expected price under the SESP-subsidized IPP policy is unlocking financial viability for many planned projects in the territory.

Clear policy with good incentive for clean energy, new subsidy is a strong step towards creating a successful IPP market.

[125] Qulliq Energy Corporation, *Independent Power Producer Policy* (2023). https://www.qec.nu.ca/sites/default/files/ipp_policy_final_19dec2023_eng_0.pdf

[126] InterGroup Consultants, *Specialized Pricing Strategy for Renewable Energy Suppliers to QEC*, prepared for Qulliq Energy Corporation (2021). https://www.assembly.nu.ca/sites/default/files/2023-05/QEC%20Pricing%20Strategy%20Renewable%20Energy%20-%20Final%20Report7305843009215668480.pdf

[127] Nunavut Department of Environment, *Sustainable Energy Support Policy*. https://www.gov.nu.ca/sites/default/files/policies-legislations/2025-04/Sustainable_Energy_Support_Policy_03__25.pdf

Community outcomes

Renewable energy development in Nunavut requires hamlets, development corporations, and the territorial government to collaborate. Despite the persistent challenges with developing projects in Nunavut, many hamlets have been actively engaged in community energy planning, and several ambitious generation projects are being spearheaded by the regional development corporations, supported by federal funding and negotiating PPAs made possible by the SESP.

In the Qikiqtani region, the Sanikiluaq High Displacement Renewable Energy Demonstration Project will see 1 MW of wind generation coupled with 800 kWh of battery energy storage installed in the hamlet of Sanikiluaq, which is expected to reduce diesel consumption by over 50%.[128] There is also an initiative in Iqaluit to determine the best mix of solar, wind, and energy storage for a more efficient and sustainable electricity system.[129] Both of these are being led by the Nunavut Nukkiksautiit Corporation, a subsidiary of the Qikiqtaaluk Corporation.

In the Kivalliq region, Sakku Investments Corporation is planning a 1 MW solar and battery facility in Naujaat, providing 30% of the community's electricity needs.[130] A similar facility is planned for Coral Harbour.

[128] Government of Canada, "Clean Energy for Rural and Remote Communities funded projects." https://natural-resources.canada.ca/reducingdiesel/clean-energy-for-rural-and-remote-communities-funded-projects/22524

[129] "Clean Energy for Rural and Remote Communities funded projects."

[130] Sakku Investments Corporation, "Renewable energy project to cut Naujaat's diesel dependence by 30 per cent," 2024. https://www.sakkuinvestments.ca/news/renewable-energy-project-to-cut-naujaats-diesel-dependence-by-30-per-cent/

Photo: Green Sun Rising, Rec Complex 10kW, Coral Harbour, NU, 2018

Priorities for action

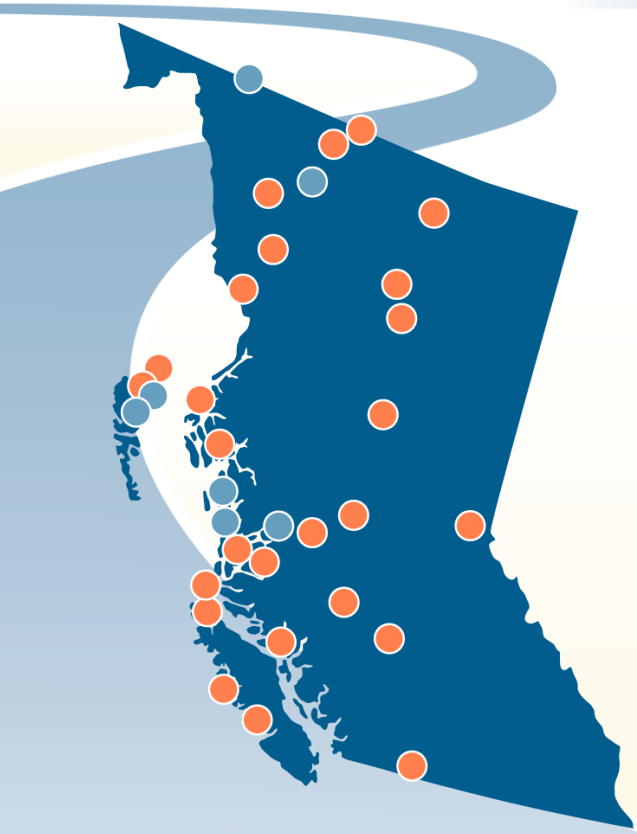
The introduction of the PPA rate price subsidy in 2025 is expected to play a major role in addressing a key economic barrier preventing projects in the territory from going forward. The subsidy signals government support for investing in renewable energy and should ease negotiations between project proponents and QEC.

However, significant technical and economic challenges remain to achieving high-penetration renewable energy. The limits on renewable penetration are set to maintain grid stability and can be bypassed with advanced microgrid technologies and energy storage options, but the cost is put on the project proponent, affecting project viability.

To address this and other challenges, the territory would benefit from comprehensive, inclusive planning to coordinate energy activities among stakeholders and rights-holders. Renewable energy provides a pathway to community-led economic growth and could lead to other economic opportunities for the territory such as the development of critical minerals mining.

A coordinated energy plan, in addition to creating opportunities, could be used to secure additional federal funding, and create stronger avenues for decarbonization through technologies like long-term battery energy storage and advanced microgrid control systems.

Photo: Green Sun Rising, Kugluktuk, NU, Rec Complex. 2017



- Diesel Microgrid Community
- Hydro and Diesel Microgrid Community

British Columbia

First Nations in B.C. are strong advocates for clean energy and have been working with the province to advance reforms to allow community-led renewable energy projects to succeed.

A strong foundation of collaboration between First Nations and the B.C. government paired with an ambitious target for diesel reduction has helped to shape a strategy for supporting community-led renewable energy projects in the province. The strategy's focus on funding and capacity building directly supports Indigenous leadership in tackling diesel reduction.

Collaboration with rights-holders	Ongoing collaboration with First Nations on diesel reduction and energy policy development for remote communities.	
Plans and strategies	Comprehensive strategy to achieve the province's 80% remote community diesel reduction target.	
Funding and financing	Substantial and consistent funding for community energy projects and clean energy champions.	
Programs for efficient buildings	Robust, programs for energy efficiency, retrofits, and capacity building tailored to remote communities.	
Independent power producer (IPP) market	IPP solar projects receive fixed rate; market opportunity for other projects is less defined.	

Restoring the flow: British Columbia

British Columbia is home to 40 diesel-dependent remote communities, most of which are First Nations.[131] BC Hydro, the utility which operates the province's integrated electricity grid, provides service to 28 of these communities across 14 isolated microgrids which are referred to as the non-integrated areas (NIAs).[132] The remaining 12 communities are First Nations that operate their own energy systems with support from Indigenous Services Canada.

Remote First Nations in B.C. have been strong advocates for their right to clean energy and diesel reduction. This advocacy resulted in the province setting an ambitious target to reduce diesel use in remote communities and establishing a collaborative platform with First Nations to develop and implement a strategy specific to remote community energy.

These actions created a policy and funding landscape that is increasingly supportive of community projects; BC Hydro and the provincial government have a strong mandate to achieve the diesel reduction target and to support community-led renewable energy. Most remote First Nations in B.C. have diesel-reducing projects in operation or development, supported by a combination of federal and provincial funding. Even with this strong progress, meeting the diesel reduction target is a significant technological and economic challenge and will require sustained priority, attention, and collaboration.

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[131] New Relationship Trust, "CEDR Funding Guide Revised May 2023," 2023. https://newrelationshiptrust.ca/wp-content/uploads/2023/05/CEDR-Funding-Guide-Revised-May-2023.pdf

[132] BC Hydro, "Non-Integrated Areas Planning Regulatory Framework," December 15, 2023, 7. https://docs.bcuc.com/documents/proceedings/2024/doc_75671_b-1-bch-non-integrated-areas-planning-framework.pdf

Photo: Barkley Project Group, Kitasoo Xai'Xais Hydropower, Klemtu, BC.

Collaboration with rights-holders

The B.C. government and remote First Nations have a strong foundation for collaboration on community energy policy.

Since 2021, the province has hosted a working group with representatives of remote First Nations to guide the development of the Remote Community Energy Strategy (RCES) and support its implementation.[133] The RCES working group is well resourced and supported through the B.C. government, and members are compensated with a stipend for their time and expertise. The group advises the government on policy priorities, ongoing issues with regulatory and utility policy, and persistent barriers to project completion.[134]

BC Hydro also hosted both bilateral and group engagements with First Nations on the development of their NIA strategy, which will set out how the utility will support community clean energy projects and diesel reduction. As a key component of the NIA strategy, BC Hydro is working to develop a plan for ongoing partnerships with community independent power producers to ensure the smooth integration and operation of clean energy projects with diesel generation, battery storage, and microgrid control systems.

In 2019, the provincial government passed the Declaration on the Rights of Indigenous Peoples Act, which states that the province must align all its laws and policies with the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP). However, key energy sector legislation has yet to be reformed.[135] This reform has the potential to institutionalize the existing partnerships and ensure that First Nations are included in energy policy development.

Ongoing collaboration with First Nations on diesel reduction and energy policy development for remote communities.

[133] Government of British Columbia, "CleanBC Remote Community Energy Strategy (RCES)." https://www2.gov.bc.ca/gov/content/industry/electricity-alternative-energy/community-energy-solutions/remote-community-energy-strategy-rces

[134] Government of British Columbia, "Remote Community Energy Strategy Working Group." https://www2.gov.bc.ca/gov/content/industry/electricity-alternative-energy/community-energy-solutions/remote-community-energy-strategy-rces/remote-community-energy-strategy-working-group

[135] Government of British Columbia, *Declaration on the Rights of Indigenous Peoples Act,* SBC 2019, c. 44. https://www.bclaws.gov.bc.ca/civix/document/id/complete/statreg/19044

Plans and strategies

The B.C. government has set a target of 80% remote community diesel reduction by 2030 as a component of their 2018 CleanBC plan to address climate change.[136] In collaboration with the RCES working group, the province developed the Remote Community Energy Strategy (RCES) to achieve the climate plan's target for reducing diesel use in remote communities. RCES has three primary pillars: capacity building, demand-side management, and clean energy generation.

The strategy is executed through a suite of programs funded by both the provincial and federal government and B.C. Ministry of Energy and Climate Solutions, in partnership with Indigenous-led funders such as Coast Funds, the Fraser Basin Council, and New Relationship Trust. Policy implementation has been guided by the RCES working group, and through targeted engagement with all remote communities.[137]

BC Hydro is developing its corporate strategy for its remote microgrids, (the NIA Strategy), which is expected to be published in 2026 and has three pillars: reliability, clean power, and affordability.[138] The NIA strategy will contain high-level plans for the future operation of the microgrids in the NIAs, including significantly enhancing technical and organizational capacity to support high-penetration renewable energy projects with updated microgrid controls and battery energy storage. BC Hydro is also working to develop a collaborative long-term resource planning process with NIA communities to ensure the utility's plans are aligned with community expectations for growth and preferences for energy.

Comprehensive strategy to achieve the province's 80% remote community diesel reduction target.

[136] Government of British Columbia, *CleanBC: Our Nature. Our Power. Our Future* (2019), 33. https://www2.gov.bc.ca/assets/gov/environment/climate-change/action/cleanbc/cleanbc_2018-bc-climate-strategy.pdf

[137] Remote Community Energy Strategy Working Group, *RCES Working Group: Recommended actions and strategies for achieving the CleanBC diesel reduction goal for BC's remote communities* (2022). https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/electricity-alternative-energy/community-energy-solutions/rces_working_group_final_report_2022_06_01.pdf

[138] BC Hydro, letter to the BCUC on the NIAs Planning Regulatory Framework, December 15, 2023. https://docs.bcuc.com/documents/proceedings/2024/doc_75671_b-1-bch-non-integrated-areas-planning-framework.pdf

Community project funding and financing

The Remote Community Energy Strategy funds capacity building and clean energy projects in remote communities. The main vehicle for delivering this funding is through the Community Energy Diesel Reduction (CEDR) Program, which is a $59 million fund for remote communities to support community energy planning, energy efficiency and demand-side management (DSM) initiatives,[139] and diesel-displacing clean energy projects.[140,141] The CEDR program is funded by the province and the federal government and administered by the New Relationship Trust, an arms-length Indigenous funder established through a negotiated agreement between the Government of B.C. and First Nations in B.C.[142]

The program is flexible and offers a range of support and mentorship to ensure community projects are successful, including project planning advice, liaising with potential partner organizations, and providing technical advisory services. The program is designed to provide funding and support to each community wholistically, starting $95,000 for community energy planning, up to $500,000 for energy efficiency and DSM initiatives, and up to $4 million for renewable energy generation projects.[143,144]

The CEDR program is augmented by the Indigenous Climate Action Network, administered by the Coastal First Nations – Great Bear Initiative, a program which supports the salaries for and provides mentorship to full-time climate action coordinators, who work for their respective First Nations to champion community energy planning, energy efficiency and DSM initiatives, and renewable energy projects based on the needs and priorities of their nation.[145]

Substantial and consistent funding for community energy projects and clean energy champions.

[139] More detail on this funding in the next section.

[140] Lee Wilson, "B.C. announces $30M to help First Nations transition away from diesel power," *APTN News*, May 04, 2023. https://www.aptnnews.ca/national-news/b-c-announces-30m-to-help-first-nations-transition-away-from-diesel-power/

[141] New Relationship Trust, *Community Energy Diesel Reduction Program,* 2025. https://newrelationshiptrust.ca/wp-content/uploads/2025/06/NRT-Clean-Energy-Report-Update-Proof-04-May.28.2025.pdf

[142] New Relationship Trust, "Our Story," https://newrelationshiptrust.ca/about/about-us/our-story/

[143] The $4 million figure is a total cap per community for all three streams.

[144] *Community Energy Diesel Reduction*, 12.

[145] Coastal First Nations, "Indigenous Climate Action Network," https://coastalfirstnations.ca/initiatives/indigenous-climate-action-network/

Programs for efficient buildings

B.C. has strong programs for energy efficiency upgrades to community housing stock. These programs have seen high uptake among remote communities, with many taking advantage to install heat pumps and make other building upgrades. In 2024, various funds and offers were amalgamated under the CEDR program, centralizing the access point for communities.

The CEDR demand-side management stream is flexible and accepts applications for community-designed projects or offers a number of financial incentives for building upgrades such as envelope improvements, high efficiency windows and doors, and switching from oil furnaces to heat pumps.[146] The climate action coordinators supported by the Indigenous Climate Action Network have strongly influenced high program uptake, as projects related to building retrofits, especially housing, require a high degree of community coordination.

For building-based renewable energy projects, BC Hydro also offers the Self-generation program which enables net metering projects.[147] This allows customers to install their own small-scale renewable energy generator to reduce energy costs.

Robust, flexible programs for energy efficiency, retrofits, and capacity building tailored to remote communities.

[146] New Relationship Trust, *Community Energy Diesel Reduction Program Demand Side Management Quick Guide* (2024). https://newrelationshiptrust.ca/wp-content/uploads/2024/06/NRT-Community-Energy-Quick-Guide-May-30-2024-SCREEN_compressed.pdf

[147] BC Hydro, "Self Generation." https://app.bchydro.com/accounts-billing/electrical-connections/self-generation.html

Independent power producer (IPP) market

B.C. does not have a fully defined IPP policy for remote community clean energy projects. This has caused frustrations among NIA First Nations developing projects, who have cited issues around data transparency and clarity related to the IPP market, the electricity purchase agreement (EPA) negotiations, and the expected price for clean energy and how these issues have hindered project development.[148]

In response to these concerns, BC Hydro created a fixed-price offer for diesel reducing solar IPP projects called the Community Renewable Energy Offer (CREO).[149] For other technologies, the price is still negotiated on a project-by-project basis to ensure long-term financial sustainability for the project. BC Hydro is also working to provide better definition around EPA negotiations in the NIAs and is developing communications materials for IPPs to clearly explain the negotiation process. The utility's priority is to work with IPPs to develop and integrate financially and technically viable projects.

BC Hydro is covering the costs of system upgrades to its microgrids to integrate community-led clean energy projects, and plans to own and operate battery energy storage systems for NIAs with solar projects.[150] This is in part thanks to a regulatory amendment enacted by the B.C. government, which allows BC Hydro to spend more of its budget on remote community decarbonization.[151] This removes the financial burden of necessary infrastructure upgrades from the proponent of a community project.

These steps to support community projects are welcome, but lengthy and difficult PPA negotiations for community projects still hinders development, especially for technologies not covered under the CREO offer.

IPP solar projects receive fixed rate; market opportunity for other projects is less clear.

[148] BC Hydro, NIA Engagement Summary, "BCUC Evidentiary Update and Compliance with Public Notice Directive," February 9, 2024; 68–69, 134, 175, 227. https://docs.bcuc.com/documents/proceedings/2024/doc_76002_b-2-bch-evidentiaryupdate-publicnotice.pdf

[149] BC Hydro, "Non-integrated area community renewable energy projects." https://www.bchydro.com/work-with-us/selling-clean-energy/nia-community-renewables.html

[150] BC Hydro, *2024 Climate Change Accountability Report,* May 2025. https://www.bchydro.com/content/dam/BCHydro/customer-portal/documents/corporate/environment-sustainability/environmental-reports/2024-climate-change-accountability-report.pdf

[151] Government of British Columbia, *Order in Council 301/2024*, amendment to Greenhouse Gas Reduction (Clean Energy) Regulation, B.C. Reg. 102/2012, approved June 10, 2024. https://www.bclaws.gov.bc.ca/civix/document/id/oic/oic_cur/0301_2024

Community outcomes

The 80% diesel reduction target in the CleanBC plan, set in response to NIA First Nations advocacy, has led to an array of policies and funds to support the participation of remote communities in the energy transition, which are sustained and guided by ongoing engagement with First Nations.

Seven of the twelve remote communities not served by BC Hydro have taken advantage of these policies and funding opportunities to build significant diesel reducing projects.[152,153]

NIA First Nations have also been hard at work bringing diesel reducing projects to fruition for their communities, with several in EPA negotiations with BC Hydro. The Ulkatcho First Nation's 4.4 MW Anahim Lake solar project is expected to complete construction in October 2025, and will be the largest off-grid solar farm in Canada, reducing the community's diesel consumption by over 60%.[154]

A 2 MW solar farm on Haida Gwaii, led by the Haida-owned Tll Yahda Energy has completed construction and is in the final stages of commissioning with BC Hydro. [155] There are plans to expand the installation to a minimum of 4 MW, and for the project to be followed by another solar installation on the island's southern microgrid.[156]

BC Hydro intends to sign EPAs on eight more diesel-reducing First Nation-owned IPP projects in the NIAs, including the two major solar projects on Haida Gwaii, major hydro projects in Gitga'at and Nuxalk territory, and several other smaller projects.[157]

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[152] Fraser Basin Council, "Renewable Energy for Remote Communities." https://www.fraserbasin.bc.ca/bc-wide-work/climate-change/renewable-energy-for-remote-communities/

[153] Coast Funds, "First Nations Announce Over $25 Million in New Renewable Energy Investments to Decarbonize Their Coastal Communities," June 28, 2020. https://coastfunds.ca/news/first-nations-announce-over-25-million-in-new-renewable-energy-investments-to-decarbonize-their-coastal-communities/

[154] Staff Black Press Media "B.C. First Nation to house largest off-grid solar project in Canada," *Victoria News,* April 21, 2024. https://www.vicnews.com/news/bc-first-nation-to-house-largest-off-grid-solar-project-in-canada-7347869

[155] Andrew Hudson, "Tll Yahda Solar Farm. https://haidagwaiinews.com/solar-farm-shines-at-energy-forum/

[156] Natural Resources Canada, "Solar North Expansion." https://natural-resources.canada.ca/funding-partnerships/solar-north-expansion

[157] Chris Sandive, letter to the BCUC on the NIAs Planning Regulatory Framework, December 15, 2023. https://docs.bcuc.com/documents/proceedings/2024/doc_75671_b-1-bch-non-integrated-areas-planning-framework.pdf

Priorities for action

In May 2025, B.C. announced a review of CleanBC to ensure that the plan is effectively supporting a provincial economy that will create a cleaner, more sustainable future.[158] Any changes to the climate plan regarding remote communities will need to build on the success of the RCES and address the lingering policy barriers and funding gaps that are hampering renewable energy projects.

It is critical that B.C. maintains the availability of the funding programs that are building community capacity to address energy issues, such as the Indigenous Climate Action Network, and continues to collaborate with First Nations and BC Hydro to identify and address the remaining roadblocks to community led projects.

B.C. has legislated the intent to bring all its laws into alignment with UNDRIP, but the status quo of energy sector legislation does not mandate that Indigenous rights are prioritized in energy planning decisions. The province and the utility have made significant progress in developing stronger collaboration with First Nations, but that progress must be enshrined in legislation.

[158] Government of British Columbia, "CleanBC review launched to strengthen climate action, results for people," news release, May 7, 2025. https://news.gov.bc.ca/releases/2025ECS0019-000423

Photo: David Benton, Hartley Bay, BC.

Alberta

Alberta has few remote communities and a policy landscape that is not supportive of community-led renewable energy development.

Alberta's deregulated electricity market and recent restrictions on renewable development exacerbate the already challenging economic conditions of developing diesel-reducing clean energy projects. The Alberta government has not prioritized supporting Indigenous-led diesel reduction. Despite these challenges, as of 2025, Alberta hosts the largest operational off-grid solar array in Canada, co-owned by Three Nations Energy and the utility ATCO.

● Diesel Microgrid Community

Collaboration with rights-holders	Little to no collaboration with First Nations on diesel reduction or energy policy.	~
Plans and strategies	Provincial emissions reduction plan only has passing mention of remote communities with no detailed plan to support community energy priorities.	~
Funding and financing	Some funding for Indigenous-led projects, but gaps in coverage for community-scale projects and no funding earmarked for remote community projects.	~
Programs for efficient buildings	Few programs for efficient buildings, and none tailored to remote communities.	~
Independent power producer (IPP) market	No market tailored to remote communities; the general market does not support the financial viability of community energy projects.	~

Restoring the flow: Alberta

Alberta has two diesel-dependent remote communities, both serviced by the private utility ATCO. The province's electricity system is a deregulated market, where power producers compete to produce the cheapest electricity.

In 2024, the province introduced an array of restrictions and strict requirements around where renewable energy projects can occur, how much of a financial guarantee needs to be provided upfront for clean-up costs, as well as other changes.[159] This has created an environment that makes renewable development in remote Indigenous communities quite challenging.

The competitive prices of the deregulated market do not favour the development of community scale projects. The provincial government had started to make progress towards enabling renewable energy in remote communities by listing diesel reduction as a government priority and offering programs to support Indigenous-led renewable energy development.[160]

Unfortunately, the provincial government's priorities have shifted; the majority of the enabling programs were not renewed, and current energy plans do not acknowledge the priority of diesel reduction or Indigenous community energy security.

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[159] Will Noel and Jason Wang, "Alberta's renewables sector is down, but let's not count it out," op-ed published in *The Hills Time*, June 2, 2025. Available at https://www.pembina.org/op-ed/albertas-renewables-sector-down-lets-not-count-it-out

[160] Dylan Hereema and Dave Lovekin, *Power Shift in Remote Indigenous Communities* (Pembina Institute, 2019), 14-15. https://www.pembina.org/reports/power-shift-indigenous-communities.pdf

Photo: David Dodge, Green Energy Futures; Three Nations Energy Solar, Fort Chipewyan, AB, Nov. 17, 2020.

Collaboration with rights-holders

There are no active working groups or consultations on diesel reduction for remote communities or provincial support for local energy initiatives.

ATCO's activities to support remote communities includes meaningfully engaging with Indigenous groups and forming partnerships with First Nations, hiring Indigenous summer students, gathering input from the utility's Indigenous Advisory Board.[161] ATCO has partnered with one of Alberta's remote communities, Fort Chipewyan, on a large solar installation to reduce diesel.

Little to no collaboration with First Nations on diesel reduction or energy policy.

Plans and strategies

The Alberta government released its Emissions Reduction and Energy Development Plan in 2024, which details its overall approach to tackling emissions across the province. The plan does not mention diesel reduction targets or strategies though it does identify geothermal energy as a potential power source for enhancing energy security and community resiliency in Indigenous and remote communities.[162]

ATCO has not published any specific strategies, targets, or long-term resource plans to support diesel reduction in remote Indigenous communities but says that it is committed to working with diesel-dependent communities to offset diesel with emissions-free sources.[163]

Provincial emissions reduction plan only has passing mention of remote communities with no detailed plan to support community energy priorities.

[161] ATCO, *ATCO Sustainability Report* (2023), 35. https://www.atco.com/content/dam/web/our-commitment/sustainability/2023-sustainability-report.pdf

[162] Government of Alberta, *Alberta Emissions Reduction and Energy Development Plan* (2024), 36. https://www.alberta.ca/emissions-reduction-and-energy-development-plan

[163] *ATCO Sustainability Report*, 20.

Community project funding and financing

Through the Alberta Indigenous Clean Energy Initiative, established by the federal government and the province, Indigenous communities can apply for funding for renewable energy generation and energy efficiency projects. The funding can be used to support any stage of a project and can help with building capacity, identifying community priorities, and exploring partnership opportunities, among other activities.[164]

Indigenous communities can leverage additional funding from the province. The Aboriginal Business Investment Fund will cover part or all the capital costs for economic development projects that are owned by Indigenous communities and ready for construction (grants range from $150,000 to $750,000).[165] In addition, the Indigenous Reconciliation Initiative provides funding for Indigenous-led economic development and cultural projects. Eligible projects can receive a maximum of $100,000 towards capacity building projects intending to enhance strategic planning, or governance development.[166]

There are also opportunities for guaranteed financing through the Alberta Indigenous Opportunities Corporation, which is a provincial corporation that offers government-backstopped loan guarantees for Indigenous groups seeking to source funding for business ventures, infrastructure investments, and cultural support.[167] In 2024–2025, the corporation is able to guarantee loans to a combined total of $3 billion, with the minimum and maximum available for a project being $20 million and $250 million, respectively.[168]

Some funding for Indigenous-led projects, but gaps in coverage for community-scale projects and no funding earmarked for remote community projects.

[164] Prairies Economic Development Canada, "Alberta Indigenous Clean Energy Initiative." https://www.canada.ca/en/prairies-economic-development/services/funding/alberta-indigenous-clean-energy-initiative.html

[165] Government of Alberta, "Aboriginal Business Investment Fund." https://www.alberta.ca/aboriginal-business-investment-fund

[166] Government of Alberta, "Indigenous Reconciliation Initiative - Economic Stream." https://www.alberta.ca/indigenous-reconciliation-initiative-economic-stream

[167] Alberta Indigenous Opportunities Corporation, *Mandate and Roles Document* (2022). https://theaioc.com/wp-content/uploads/2023/05/2022-02-11-AIOC-Mandate-and-Roles-Document.pdf

[168] Alberta Indigenous Opportunities Corporation, *AIOC Annual Report 2023-24* (2024), 7. https://theaioc.com/wp-content/uploads/2024/07/AIOC-11503-2023-24-NoSignatures.pdf

Programs for efficient buildings

Through the Alberta Indigenous Clean Energy Initiative, Indigenous communities can design and develop energy efficiency projects, but Alberta does not offer any specific incentives for energy efficient retrofits.

The utility ATCO has a net metering program it calls "micro-generation" that allows consumers to generate small amounts of clean electricity to meet their needs, but the program is not tailored to remote or Indigenous communities.[169]

Few programs for efficient buildings, and none tailored to remote communities.

[169] ATCO, "Micro-Generation." https://electric.atco.com/en-ca/products-services-rates/new-services-changes/micro-generation.html

Independent power producer (IPP) market

ATCO does not have an IPP policy for remote communities. Instead, for projects with a capacity up to 5 MW, ATCO follows the Alberta government's small-scale generation policy. Under the policy, the Alberta Electricity System Operator promises to pay the small-scale power producer the wholesale market price for each hour in the previous monthly settlement period, with the final payment provided two months after electricity delivery.[170,171]

The small-scale generation policy offers remote projects the same price as grid-connected projects, which often ends up being significantly lower than what is needed to make renewable projects in remote communities financially viable.

In addition, having fluctuating purchase rates creates uncertainty around the revenue stream of financed projects, especially since the market for electricity in remote communities is significantly smaller than it is for grid-connected communities. As a result, remote communities pursuing clean energy development face difficulty creating a compelling business case and will have to take on a high level of financial risk.

No market tailored to remote communities; the general market does not support the financial viability of community energy projects.

[170] Government of Alberta, *Small Scale Generation Regulation*, Alta. Reg. 194/2018. https://kings-printer.alberta.ca/1266.cfm?page=2018_194.cfm&leg_type=Regs&isbncln=9780779846337c

[171] Alberta Electricity System Operator, *Power Pool Financial Settlement 2024-2025 Settlement Dates* (2024), 1. https://www.aeso.ca/market/market-participation/settlement-credit/

Alberta

Community outcomes

Alberta does not have many remote communities, and diesel reduction in these communities has not been a priority for the provincial government. Much of the clean energy progress in remote communities was made under a previous government, which had several programs to fund Indigenous-led community energy plans, retrofits, and renewable energy development. These programs were not renewed in 2019.

First Nations in Alberta have used partnerships to advance clean energy. In 2020, Three Nations Energy, an Indigenous-owned energy company, and ATCO completed the Fort Chipewyan solar farm, which at the time was the largest off-grid solar farm in Canada. The project includes a 2,200 kW solar array, owned by Three Nations Energy, and integrated into an isolated microgrid, and a 1,700 kWh battery storage system and microgrid control system owned by ATCO. The project is expected to produce 25% of the community's electricity.[172]

Priorities for action

Alberta would benefit from consistent, long-term, and focused policies to support diesel-reducing partnerships between First Nations and industry players. As a jurisdiction with a deregulated market and restrictions on renewable energy development, comprehensive policies are needed to make diesel-reducing projects easier to execute. These policies would need to address barriers in access to capital and create opportunities for long-term contracts for clean power generation to reduce diesel.

The Alberta government should work with First Nations to develop a long-term vision for diesel reduction and a strategy for building a viable market for diesel-reducing projects.

[172] ATCO, "Fort Chipewyan Off-Grid Solar and Storage," August 26, 2019. https://electric.atco.com/en-ca/community/projects/fort-chipewyan-off-grid-solar.html

Photo: David Dodge, Green Energy Futures, Three Nations Energy Solar- Fort Chipewyan, AB.

Diesel Microgrid Community

Saskatchewan

Saskatchewan has two diesel-dependent communities, both First Nations, and many rural Indigenous communities all facing similar challenges with energy security.

The province has put strong focus on economic reconciliation with First Nations through partnership on major infrastructure projects, though policies to support community-scale energy are lacking. A recent project by SaskPower to replace an aging transmission line with a combined solar-battery-diesel microgrid could pave the way for further diesel reduction.

Collaboration with rights-holders	Pathways for collaboration with Indigenous organizations exist but focus on rural and remote communities is lacking.	
Plans and strategies	No specific strategy for reducing diesel use or supporting community clean energy development.	
Funding and financing	No dedicated funding for remote community energy; loan guarantee program for First Nations is not well tailored to supporting community projects.	
Programs for efficient buildings	Robust programs for energy efficiency upgrades in remote communities.	
Independent power producer (IPP) market	No defined market for community renewable energy projects.	

Restoring the flow: Saskatchewan

Saskatchewan has two off-grid, remote communities, Kinoosao and Descharme Lake. It has many rural, grid-connected northern Indigenous communities that experience similar energy insecurity challenges as diesel-dependent communities: high energy costs, long outages, and low power quality. Community projects, if well supported, could create a pathway to energy security for both rural and remote communities. Despite this potential, there is limited policies to support community-scale renewable energy projects across rural and remote communities in the province and few policies to support them.

The utility, SaskPower has recent experience renewable energy with a diesel microgrid. In 2025, the utility completed installation of a microgrid that combines solar power, battery storage, and back-up diesel generation rather than replacing an aging transmission line to the community of Descharme Lake.[173]

Saskatchewan depends heavily on fossil fuels for electricity but has ambitious provincial climate targets to reduce emissions and expand renewable energy. The government has strong policies to create business opportunities for First Nations in the clean energy sector, but these policies are not designed to support community-scale energy projects.

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[173] SaskPower, "SaskPower's First Microgrid Now Providing Reliable Power to Descharme Lake," news release, April 23, 2025. https://www.saskpower.com/about-us/media-information/news-releases/2025/saskpower-first-microgrid-now-providing-reliable-power-to-descharme-lake

Photo: Pembina Institute

Collaboration with rights-holders

The province has no active working groups dedicated to diesel reduction or community clean energy. The First Nations Power Authority (FNPA), an organization established to create meaningful economic opportunities for Indigenous communities in the electricity sector, acts as a liaison between governments, corporations, and First Nations.[174] The FNPA negotiates with SaskPower to create exclusive procurement opportunities for First Nations-owned projects, but is largely focused on large, grid-connected projects and not community energy systems.

In 2025, with the province's support, SaskPower signed an MOU to work with the Saskatchewan First Nations Natural Resource Centre for Excellence[175] on opportunities to increase Indigenous participation in the power sector.[176] This is a strong first step, setting the stage for further collaboration, though the focus will not be exclusive to remote communities.

Pathways for collaboration with Indigenous organizations exist but focus on rural and remote communities is lacking.

[174] First Nations Power Authority, "About FNPA." https://fnpa.ca/about-fnpa/

[175] The Saskatchewan First Nations Natural Resource Centre of Excellence has the mandate to support First Nations participation in responsible development of energy and is wholly owned by 74 First Nations in Saskatchewan.

[176] SaskPower, "SaskPower and First Nations Centre of Excellence Sign MOU to Advance Indigenous Participation in Power Sector," news release, May 29, 2025. https://www.saskpower.com/about-us/media-information/news-releases/2025/saskpower-and-fncoe-sign-mou-to-advance-indigenous-participation-in-power-sector

Plans and strategies

Saskatchewan's climate strategy is centred around reducing emissions without compromising economic opportunities. In the strategy, the province commits to reducing emissions to 50% of 2005 levels by 2030, with the goal of 50% electricity generation from renewable sources.[177]

The province's strategy also includes increasing fossil fuel production while investing in carbon capture and storage. The only mention of remote community energy comes in the context of investing in the development of nuclear small modular reactors.[178]

SaskPower is in the early stages of planning how community-scale renewable technologies such as solar and batteries could be added to their systems, but there is no formal strategy or policy yet.[179] The Descharme Lake project will be monitored to assess the viability of other renewable energy projects in remote communities.[180]

No specific strategy for reducing diesel use or supporting community clean energy development.

[177] Government of Saskatchewan, *Prairie Resilience: A Made-in-Saskatchewan Climate Change Strategy* (2017). https://www.saskatchewan.ca/business/environmental-protection-and-sustainability/a-made-in-saskatchewan-climate-change-strategy/saskatchewans-climate-change-strategy

[178] Government of Saskatchewan, *Saskatchewan's Growth Plan 2020-2030* (2024), 25. https://www.saskatchewan.ca/government/budget-planning-and-reporting/plan-for-growth

[179] SaskPower, "Future Planning." https://www.saskatchewan.ca/government/news-and-media/2022/april/04/new-legislation-to-grow-indigenous-involvement-in-saskatchewan-economy

[180] SaskPower, "Descharme Lake Microgrid." https://www.saskpower.com/our-power-future/our-electricity/electrical-system/system-map/descharme-lake-microgrid

Community project funding and financing

The province does not offer dedicated funding programs for remote community diesel reduction, although several opportunities exist to help First Nations access capital to build projects. In 2022, the government established the Saskatchewan Indigenous Investment Finance Corporation (SIIFC) to increase First Nations access to capital by providing loan guarantees to Indigenous communities, organizations, and corporate entities in key economic sectors, including renewable energy.[181] The SIIFC provides loan guarantees of at least $5 million for eligible projects.[182]

While the loan guarantee creates opportunities for large scale economic development projects it is not well tailored to the challenges of developing a community renewable energy project. Participating in the program requires significant project development and planning before being eligible for guaranteed financing, and there aren't other funding sources to support capacity building or start-up costs for community-led diesel-reducing projects.

No dedicated funding for remote community energy; loan guarantee program for First Nations is not well tailored to supporting community projects.

[181] Saskatchewan Indigenous Investment Finance Corporation, "About." https://siifc.ca/about/

[182] Saskatchewan Indigenous Investment Finance Corporation, "Program." https://siifc.ca/program/

Programs for efficient buildings

SaskPower has several programs for First Nations customers interested in improving the energy efficiency of their buildings and lowering their heating costs.

The Northern First Nations Home Retrofit Program is open to First Nations customers in rural and remote northern communities that use electricity as their primary heat source. As part of the program, SaskPower partners with First Nations to provide free energy efficient home upgrades to their communities.[183]

SaskPower also launched the Indigenous New Homes Rebate program in 2025 to incentivize energy efficient new builds, offering up to $34,500 per home to meet higher energy performance standards. The program is funded through the federal government's Future Electricity Fund.[184]

These programs are augmented by the utility's Energy Assistance Program, which provides low-income customers with one-on-one energy coaching and free installation of energy efficient technologies.[185]

SaskPower also offers a net metering program to all its customers, although the price for customer-generated electricity is quite low and the uptake in rural and remote communities is limited.[186]

Robust programs for energy efficiency upgrades in remote communities.

[183] SaskPower "Northern First Nations Home Retrofit Program." https://www.saskpower.com/power-savings-and-programs/home/programs/northern-first-nations-home-retrofit-program

[184] SaskPower, "SaskPower Launches New Indigenous Homes Rebate," news release, February 24, 2025. https://saskpower.com/about-us/media-information/news-releases/2025/saskpower-launches-indigenous-new-homes-rebate

[185] SaskPower, "Energy Assistance Program." https://www.saskpower.com/power-savings-and-programs/home/programs/energy-assistance-program

[186] SaskPower, "What We Heard From You – Pricing Review." https://www.saskpower.com/our-power-future/our-electricity/connecting-to-the-power-grid/renewable-energy-solutions/~/link.aspx?_id=6E60EA458C184F5D807B8F80044CEEA1&_z=z

Independent power producer (IPP) market

SaskPower solicits IPP projects using an open competition model that favours lowest-price projects with the most minimal impact on customers. The utility has a strategic focus on increasing Indigenous participation in renewable energy generation projects and requires a minimum of 10% Indigenous ownership in proposed projects, with greater Indigenous ownership receiving a higher project evaluation score.[187]

SaskPower also solicits IPP renewable energy projects through procurement agreements with the FNPA.[188] This approach works for larger grid-connected projects but does not create opportunities for community-scale projects.

No defined market for community renewable energy projects.

[187] SaskPower, "How We Work With IPPs," *SaskPower Blog*, June 17, 2024. https://www.saskpower.com/about-us/our-company/blog/2024/how-we-work-with-ipps

[188] SaskPower, "SaskPower, First Nations Power Authority Sign 100-MW Solar Procurement Agreement," news release, June 27, 2024. https://www.saskpower.com/about-us/media-information/news-releases/2024/saskpower-fnpa-sign-100-mw-solar-procurement-agreement

Community outcomes

A resident of Kinoosao participated in the first cohort of the Indigenous Off-Diesel Initiative, a federally funded renewable energy training program that supports Indigenous-led climate solutions.[189] Their participation initiated the development of a community energy plan and a project for energy efficiency upgrades to homes and the local school.[190,191]

The project was also recently awarded more federal funding to evaluate solar, battery, and heat pump options for power and heat in the community.[192] Other projects looking into renewable energy opportunities, such as the feasibility of a locally sourced biomass facility, are underway in the Peter Ballantyne Cree Nation communities.[193]

SaskPower's Descharme Lake Microgrid, while not owned by the community, demonstrates the potential of community-scale energy systems. It is expected to save the utility money, have less impact on the environment than the transmission line, and be 80% powered by solar, with the diesel generators only expected to be used in the winter.[194]

[189] Natural Resources Canada. "Indigenous Off-Diesel Initiative." https://www.canada.ca/en/services/environment/weather/climatechange/climate-plan/reduce-emissions/reducing-reliance-diesel/indigenous-off-diesel-initiative.html

[190] Natural Resources Canada, "Kinoosao Energy Retrofit Project / Kinoosao Microgrid Project." https://natural-resources.canada.ca/science-and-data/funding-partnerships/opportunities/current-investments/kinoosao-energy-retrofit-projectkinoosao-microgrid-project/24332

[191] Jobb Developments, "Kinoosao Clean Energy Project." https://www.jobbdevelopments.com/kinoosao-clean-energy-project

[192] Natural Resources Canada, "Government of Canada Announces Funding for Clean and Reliable Energy in First Nations and Inuit Communities," March 18, 2025. https://www.canada.ca/en/natural-resources-canada/news/2025/03/government-of-canada-announces-funding-for-clean-and-reliable-energy-in-first-nations-and-inuit-communities.html

[193] Silas Obeng Asante, *Technical assessment of biomass energy resource potential in Peter Ballantyne Cree Nation communities, Northern Saskatchewan* (University of Saskatchewan, 2023). https://renewableenergy.usask.ca/silas-esri-report.pdf

[194] "Descharme Lake Microgrid."

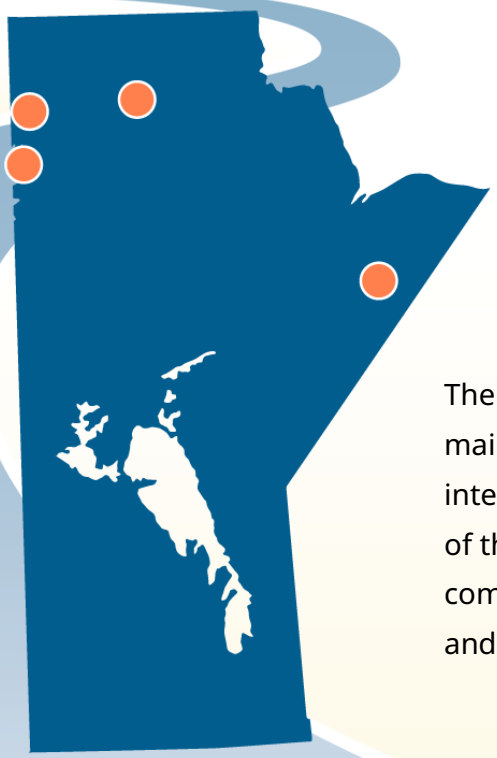
Saskatchewan

Priorities for action

Saskatchewan would benefit from a more unified approach to community energy with a collaboratively developed strategy to make community renewable energy a reality for rural and remote Indigenous communities, including diesel-dependent Kinoosao.

The microgrid in Descharme Lake presents a strong opportunity for SaskPower to evaluate remote community microgrid technologies for deployment in other communities, while a well-defined IPP policy will create opportunities for community ownership of infrastructure.

Photo: Pembina Institute



Diesel Microgrid Community

Manitoba

Manitoba home to four diesel-dependent communities, all of which are First Nations and only accessible by winter roads or plane.

The difficulty in accessing these remote communities means that maintaining a supply of reliable, affordable energy while integrating renewable energy is a significant challenge. In spite of this challenge, First Nations in Manitoba have been pursuing community clean energy projects as a means to reduce diesel and establish energy security.

Collaboration with rights-holders	Some collaboration but requires funding, capacity support, and focus on remote community energy.	
Plans and strategies	Provincial energy plans do not mention remote community diesel reduction.	
Funding and financing	No dedicated provincial funding for community clean energy projects, and no assistance provided to communities to access federal funds.	
Programs for efficient buildings	Comprehensive programs, with support mechanisms to increase Indigenous participation.	
Independent power producer (IPP) market	No public-facing IPP policy; consequently, no clearly-defined market opportunity for community-scale renewable energy projects.	

Restoring the flow: Manitoba

Manitoba is home to four diesel-dependent remote communities, all of which are First Nations and are only accessible on winter roads or by plane. This poses significant logistical challenges for energy development due to short transportation and construction seasons, and the high cost of materials and labour. Even so, remote First Nations in Manitoba have been pursuing ambitious diesel-reducing measures, with clean energy projects in operation or in development in three out of the four communities. The four communities — Brochet, Lac Brochet, Shamattawa, and Tadoule Lake — are powered by four diesel generating stations operated by Manitoba Hydro.

Working with these remote communities on diesel reduction has been on the radar for the Manitoba government since at least 2012, when it was named as a priority in the province's energy plan.[195] Unfortunately, progress has been slow due to changing political priorities, hard-to-remove structural barriers, and limited capacity at both the government and community level. The projects thus far have faced technical, economic, and operational challenges. While there are encouraging signs that the Manitoba government and Manitoba Hydro are making changes to address these hurdles, undertaking projects to reduce diesel use is still incredibly difficult.

[195] Government of Manitoba, *Focused on What Matters Most: Manitoba's Clean Energy Strategy* (2012). https://www.gov.mb.ca/sd/environment_and_biodiversity/energy/pubs/energy_strategy_2012.pdf

Photo: Kisik Clean Energy, Tadoule Lake, MB.

Collaboration with rights-holders

While relations between First Nations and the Manitoba government have been contentious over the past decade, especially in relation to energy policy, in 2024 the province reaffirmed its commitment to supporting First Nations opportunities in the clean energy sector, as well as to reconciliation through relationship building and consultation with First Nations governments and leadership organizations.[196,197]

First Nations in northern Manitoba, including the four diesel-dependent communities, are represented by Manitoba Keewatoni Otimakanak Inc., which has been advocating for grid connection for these communities.[198,199]

Province-wide, Indigenous energy advocacy is led through the Assembly of Manitoba Chiefs (AMC), which represents 62 of the 63 First Nations in Manitoba. The AMC's clean energy work involves engaging member nations and partner organizations to develop a First Nations climate leadership agenda, as well as sustaining strategic relationships with Efficiency Manitoba (discussed below), the province, and the federal government — though funding and staffing is a consistent barrier to furthering these goals.[200]

Some collaboration but requires funding, capacity support, and focus on remote community energy.

[196] Assembly of Manitoba Chiefs, "Assembly of Manitoba Chiefs Statement on New Hydro and Public Utilities Board Bill," media release, March 25, 2022. https://manitobachiefs.com/press_releases/assembly-of-manitoba-chiefs-statement-on-new-hydro-and-public-utilities-board-bill/

[197] Brittany Hobson, "Indigenous leaders hopeful as Manitoba Premier Kinew takes on reconciliation portfolio," *CBC News*, November 18, 2023. https://www.cbc.ca/news/canada/manitoba/indigenous-leaders-wab-kinew-reconciliation-minister-1.7032867

[198] Manitoba Keewatoni Otimakanak Inc., "About Us." https://mkonation.com/about-mko/

[199] Matthew Frank, "Manitoba looks to connect remote communities to power grid," *The Globe and Mail,* April 20, 2025. https://www.theglobeandmail.com/canada/article-manitoba-looks-to-connect-remote-communities-to-power-grid/

[200] Assembly of Manitoba Chiefs, *Annual Report 2024* (2024). https://manitobachiefs.com/wp-content/uploads/2024/08/2024_AMC_ANNUALREPORT_FORMATTED_D4.pdf

Assembly of Manitoba Chiefs, *Annual Report 2023* (2023). https://manitobachiefs.com/wp-content/uploads/2023/08/23-08-08-Annual-Report-AUG_22-1.pdf

Plans and strategies

In 2024, Manitoba released the Affordable Energy Plan, which lays out the province's vision for capitalizing on the low carbon economy while keeping its own energy clean and affordable.

The plan includes innovative policies to support Indigenous opportunities in clean energy, such as a loan guarantee for Indigenous-partnered wind generation projects but does not specifically address the priority of decarbonizing remote community microgrids.[201]

It does, however, specify that energy for remote communities will be included in a development plan as part of future long-term resource planning, and that projects in the development plan will have streamlined approval processes to align with provincial objectives.[202]

In 2025, Manitoba announced a plan to connect the four diesel-dependent communities to the electricity grid as an expansion of the Kivalliq transmission project to connect several Nunavut communities to Manitoba's electricity grid by 2032. This announcement came as a surprise to some First Nations leaders who had not had discussions about grid connection with the province in recent years. Manitoba's premier said the province would work with Manitoba First Nations to get communities off diesel and determine the route of the transmission line.[203]

Provincial emissions reduction plan does not prioritize remote community diesel reduction.

[201] Government of Manitoba, *Affordable Energy Plan (2024)*, 8–9. https://www.gov.mb.ca/asset_library/en/energyplan/mb-affordable-energy-plan.pdf

[202] *Affordable Energy Plan (2024)*, 15.

[203] Matthew Frank, "Manitoba looks to connect remote communities to power grid," *The Globe and Mail,* April 20, 2025. https://www.theglobeandmail.com/canada/article-manitoba-looks-to-connect-remote-communities-to-power-grid/

Community project funding and financing

Funding for renewable energy projects in remote Manitoba communities has come almost entirely from federal programs given that the province does not have any funding programs tailored to remote communities or partnerships with the federal government to improve access to funding.

No dedicated provincial funding for community clean energy projects, and no assistance provided to communities to access federal funds.

Photo: Kisik Clean Energy, Tadoule Lake, MB.

Programs for efficient buildings

Energy efficiency initiatives in Manitoba are managed by Efficiency Manitoba, a Crown corporation established in 2019. Its mandate is to develop programs and initiatives to reduce provincial electricity consumption by 1.5% annually and natural gas consumption by 0.75% annually.[204]

Efficiency Manitoba has programs specifically designed for Indigenous communities, such as the Indigenous Community Energy Efficiency Program, which supports the employment and training of an energy efficiency advocate for Indigenous communities.[205] The advocate is expected to develop goals and action plans to achieve energy savings in their community and identify ways to take advantage of Efficiency Manitoba programs.[206]

Efficiency Manitoba also offers enhanced rebates for community ground source heat pumps; free building upgrades, such as the installation of insulation, for income-qualifying households; enhanced rebates for high-performance windows and doors; and free energy efficient upgrades for First Nation and Métis small businesses, among other programs.[207]

Since 2022, Efficiency Manitoba has hosted an Indigenous Energy Efficiency Working Group (IEEWG) to share information and receive ongoing feedback on its programs, identify barriers to implementation, and note areas for improvement.[208]

The provincial utility, Manitoba Hydro, offers a net billing program, though uptake in remote communities is limited, and the price for excess energy is significantly lower than the electricity rates.[209]

Comprehensive programs, with support mechanisms to increase Indigenous participation.

[204] Efficiency Manitoba, "About Us." https://efficiencymb.ca/about/

[205] Efficiency Manitoba, "Indigenous Community Energy Efficiency Program." https://efficiencymb.ca/community/indigenous-community-energy-efficiency-program/

[206] Efficiency Manitoba, *Indigenous Community Energy Efficiency Program: Program Guide.* https://efficiencymb.ca/wp-content/uploads/Efficiency_Manitoba_ICEEP_Program_Guide.pdf

[207] Efficiency Manitoba, "My Home Available Rebates." https://efficiencymb.ca/my-home/

Efficiency Manitoba, "My Community." https://efficiencymb.ca/community/

[208] *2023/24 Annual Report,* 22.

[209] Manitoba Hydro, "Generate your own electricity." https://www.hydro.mb.ca/service/generate-your-own-electricity/#excess_energy_price

Independent power producer (IPP) market

Manitoba Hydro handles renewable energy development in remote communities on a customer-driven, case-by-case basis and does not have a public-facing IPP policy, though they do have an internally consistent approach to handling IPPs on remote microgrids.

Power purchase agreements (PPAs) are also negotiated between project proponents and Manitoba Hydro on a case-by-case basis, which can be lengthy, costly, and difficult for community IPPs. The utility determines PPA rates based on historical data on the avoided cost of diesel, and contracts have a flexible rate to reflect fluctuations in the price of diesel over time. PPAs are negotiated to ensure cost savings on diesel are passed on to the community.

Manitoba Hydro limits the size and penetration level of renewable energy projects to maintain the reliability of their microgrids but has begun to work with communities to support more ambitious projects that include additional technology such as grid storage. Manitoba Hydro passes costs of additional studies, integration, and risks on to community IPPs.

No public-facing IPP policy; consequently, no clearly-defined market opportunity for community-scale renewable energy projects.

Community outcomes

Despite the challenging conditions for development, three of the four diesel-dependent communities have completed clean energy projects, with the fourth working towards one.

Lac Brochet has a 286 kW solar photovoltaic system with a negotiated PPA with Manitoba Hydro.[210]

Shamattawa has solar installations on the community's school buildings and is one of eight First Nations in the province to participate in Efficiency Manitoba's Indigenous Community Energy Program.[211]

Northlands Dënesųłiné First Nation, in Brochet completed a solar and biomass project in 2020. The project was expected to replace one-third of the community's fuel use for heat and close to 20% for electricity, but it has run into operational challenges due to a lack of energy storage and poor integration with Manitoba Hydro's grid.[212]

The Sayisi Dene First Nation in Tadoule Lake is in negotiations with Manitoba Hydro on a PPA for an ambitious diesel-reducing project that will include a solar installation and battery energy storage, with the plan to expand and include wind power in the future.[213]

[210] Solar Solutions Canada, "Lac Brochet, MB." https://solarsolutions.ca/case-studies/

[211] Efficiency Manitoba, *2023/24 Annual Report* (2024), 25. https://efficiencymb.ca/wp-content/uploads/2023-24-Annual-Report.pdf

[212] Boke Consulting, "Northlands Dënesųłiné Renewable Energy & Remediation." https://bokeconsulting.com/northlands-denesuline-renewable-energy-remediation/

[213] Darrell Brown, "Sayisi Dene First Nation Solar & Wind Renewable Energy Integration," presented at *Renewables in Remote Communities Conference, Whitehorse, Yukon, April 25–28, 2022*. Available at https://www.pembina.org/docs/event/rirc2022-25-kisik-clean-energy-off-grid-first-nation-clean-energy-project-stories.pdf

Priorities for action

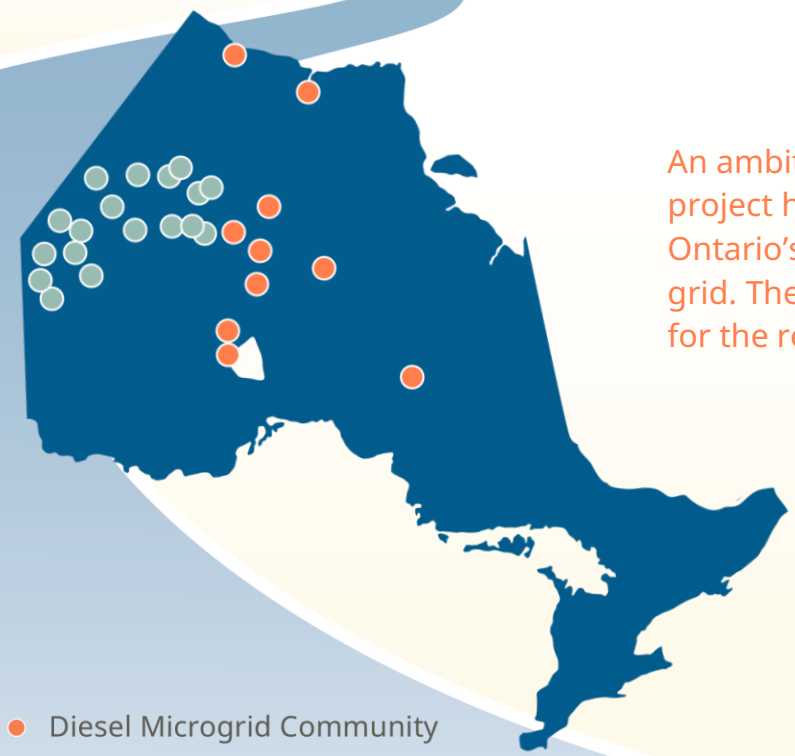
The province has sent signals that it is treating reconciliation and relationship building with First Nations as a major priority, including through creating opportunities for Indigenous economic participation in clean energy.

This provides a good opportunity to address the challenges faced by both remote communities and Manitoba Hydro in advancing diesel-reducing projects together. Ongoing challenges stem from a lack of funding for remote community energy, and no formal IPP policy with clear processes for price negotiations for clean energy projects.

The province's announcement about connecting the four diesel-dependent communities to the Kivalliq transmission line signals a promising path ahead, though one that will require significant collaboration between the province and those communities. The province must build an effective platform for collaboration with Indigenous leadership and community members to ensure that the project maximizes the benefits for the communities.

Manitoba, with only four diesel-dependent communities, is poised to drastically reduce diesel use for electricity generation by collaborating with First Nations on a comprehensive remote energy strategy, more financial support for projects and capacity, and an IPP policy tailored to encourage Indigenous participation in the clean energy sector.

Photo: Pembina Institute



Ontario

An ambitious Indigenous-led transmission project has successfully connected two-thirds of Ontario's remote communities to the provincial grid. The province is exploring similar projects for the remaining remote First Nations.

This accomplishment is in large part thanks to the determined leadership of the First Nations owners and support from the province and the federal government. Ontario's latest energy strategy reaffirms a commitment to support Indigenous partnerships in remote energy projects.

Collaboration with rights-holders	The province works with Indigenous leadership on advancing diesel reduction opportunities and provides funding for capacity building.	
Plans and strategies	Comprehensive strategy that builds on the success of Indigenous partnerships and expands opportunities for Indigenous participation in the energy sector.	
Funding and financing	Funding is available but there is still a gap for medium sized projects.	
Programs for efficient buildings	Energy efficiency programs exist but have limited coverage.	
Independent power producer (IPP) market	IPP policy is well defined, with published prices for each community.	

Restoring the flow: Ontario

First Nations in Ontario have made significant strides in diesel reduction through several community renewable energy projects and an ambitious grid connection project. The Indigenous-led and -owned Wataynikaneyap (Watay) transmission line has connected 16 formerly diesel-dependent communities to the Ontario power grid since 2022 and expects to connect one more.[214]

There are 15 communities that are still not connected to the grid; nine of these remote communities are serviced by the utility Hydro One Remote Communities Inc. (HORCI), while the others are independent power authorities with band-operated diesel generators. The Ontario electrical grid is managed by the Independent Electricity System Operator (IESO), and electricity policy is administered through the Ministry of Energy and Electrification, which works with First Nations, the IESO, and the federal government to support diesel reduction projects.

Several of the remaining diesel-dependent communities have planned or are operating renewable energy projects, and the Ontario government has also announced the intention to work with an additional five remote First Nations to plan a potential grid connection project in the future.[215]

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[214] Wataynikaneyap Power, "Wataynikaneyap Power Completes Construction of 'the Line that Brings Light'," news release, December 13, 2024. https://www.wataypower.ca/updates/wataynikaneyap-power-completes-construction-of-the-line-that-brings-light

[215] Government of Ontario, "Ontario Working in Partnership with Northern First Nations to End Reliance on Diesel Fuel," media release, April 4, 2024. https://news.ontario.ca/en/release/1004394/ontario-working-in-partnership-with-northern-first-nations-to-end-reliance-on-diesel-fuel

Photo: Wataynikaneyap Power, Ontario, 2023

Collaboration with rights-holders

Ontario's 2025 energy strategy: *Energy for Generations*, affirms the province's commitment to working in partnership with remote First Nations to advance diesel-off opportunities.[216] Project partnerships and co-planning of new resources and infrastructure are also identified as a priority for the energy sector broadly.[217] The Ontario government, HORCI, and the IESO all conduct bilateral engagement with remote First Nations.

The IESO hosts an annual First Nations Energy Symposium which convenes government, utilities, and Indigenous energy advocates to create dialog about energy.[218] The symposium is inclusive of, but not focused on, remote communities, and recent events have included topics such as trends in project financing and empowering community energy partnerships.[219]

The IESO has an Indigenous Energy Support Program that provides funding to support First Nations and Métis communities' participation in the energy sector with energy planning, skills building, and pursuing equity partnerships.[220]

There is additional funding available to support community capacity to through the province's New Relationship Fund, which intends to increase consultation and engagement expertise, as well as improve economic development opportunities in participating Indigenous communities.[221]

The Wataynikaneyap (Watay) Transmission Project has become a major vehicle for engagement with communities, led by Wataynikaneyap Power LP and supported the Ministry of Energy and Electrification.[222]

Well resourced, collaborative partnerships with Indigenous leadership on advancing diesel reduction opportunities with funding for capacity building.

[216] Government of Ontario, *Energy for Generations,* 2025, 133. https://www.ontario.ca/files/2025-07/mem-energy-for-generations-en-2025-07-18.pdf

[217] *Energy for Generations,* 136.

[218] IESO, "First Nations Energy Symposium." https://ieso.ca/Get-Involved/Indigenous-Relations/Indigenous-Communities/First-Nations-Energy-Symposium

[219] IESO, "2024 First Nations Energy Symposium." https://ieso.ca/Get-Involved/Indigenous-Relations/Indigenous-Communities/2024-First-Nations-Energy-Symposium

[220] *Energy for Generations,* 130.

[221] Government of Ontario, "Funding for Indigenous economic development," 2024. https://www.ontario.ca/page/funding-indigenous-economic-development

[222] Wataynikaneyap Power, "Engagement: Approach." https://www.wataypower.ca/engagement/approach

Ontario

Plans and strategies

Ontario's 2025 *Energy for Generations* strategy outlines the province's plan to provide affordable, secure energy through a mix of sources. It is the province's first integrated energy plan, establishing a planning horizon for the energy sector out to 2050. In the strategy, the province commits to "exploring and enabling off-diesel opportunities" for the remaining diesel dependent communities.[223]

One major off-diesel opportunity and component of the province's plan is new transmission infrastructure. The strategy highlights the success of the Wataynikaneyap Power Project and the intent to explore feasibility of new transmission routes. The IESO is undertaking a major grid connection study spanning northern Ontario, including evaluating grid connection for five Matawa First Nations communities in the northwest of the province.[224]

The strategy also expands funding and financing opportunities for Indigenous-led community projects and programs for energy efficiency and identifies actions to create opportunities for Indigenous leadership and participation in large energy projects including transmission, generation, and storage.[225]

The province reaffirms its commitment to working in partnership with the five Matawa First Nations to advance grid connection and engaging with the remaining four remote First Nations on off-diesel opportunities.[226]

Comprehensive strategy that builds on the success of Indigenous partnerships and expands opportunities for Indigenous participation in the energy sector.

[223] *Energy for Generations*, 133.

[224] *Energy for Generations*, 133.

[225] *Energy for Generations,* 134-137

[226] *Energy for Generations*, 133.

Community project funding and financing

The Indigenous Energy Support Program (IESP), funded by the province and administered by the IESO, offers First Nations funding across four distinct streams: community energy champions, community energy planning, capacity building around energy sector opportunities, and clean energy projects.[227]

The IESP is supported with $25 million in provincial funding, and in 2025 a new funding stream was announced providing $500,000 per year for each remote First Nation to support diesel reduction initiatives and "projects that address urgent energy needs for off-grid communities."[228]

In addition to the IESP, the province offers government-backed financing for First Nations equity ownership of energy projects through the Indigenous Opportunities Financing Program (IOFP). Projects must include Indigenous participation in new transmission or renewable energy projects such as wind, solar or hydroelectric power.[229] Under this program, the province created a guaranteed loan of $1.34 billion for the Watay project.[230]

The IOFP is best suited for larger projects with price tags greater than $5 million due to the high costs of legal and financial due diligence to meet the eligibility criteria.[231] This means that there is a major funding gap for community-scale projects between the $500,000 limit of the IESP and the roughly $5 million minimum for the IOFP.

Funding is available but there is still a gap for medium sized projects.

[227] Government of Ontario, "Ontario Increasing Support for Indigenous Energy Projects," news release, August 26, 2025. https://news.ontario.ca/en/release/1006365/ontario-increasing-support-for-indigenous-energy-projects

[228] *Energy for Generations*, 131.

[229] Ontario Finance Authority, "Aboriginal Loan Guarantee Program: Frequently Asked Questions." https://www.ofina.on.ca/algp/faq.htm#p1

[230] *Ontario's Clean Energy Opportunity*, 43.

[231] Ontario Finance Authority, "Overview of the Aboriginal Loan Guarantee Program (ALGP)." https://www.ofina.on.ca/algp/index.htm

Programs for efficient buildings

Two energy efficiency programs are accessible to remote Indigenous communities in Ontario. The Remote First Nations Energy Efficiency Program by the IESO offers funding for energy efficient retrofits and appliance upgrades and projects but is only available for 16 remote First Nations communities, most of which have been connected to the Watay transmission line.[232] Between 2020 and 2022, there were 175 participants in the program with a reported energy savings of 115 MWh.[233]

Additionally, HORCI offers the Energy Star Appliance Rebate Program for its customers, which allows them to replace appliances with energy efficient ones.

HORCI has a net-metering program for remote communities, but it is best suited to community buildings. Standard rates are divided into two categories: air-access communities and road/rail-connected communities, and projects cannot exceed 50% of the building's annual energy consumption.[234]

Energy efficiency programs exist but have limited coverage.

[232] IESO, "Remote First Nations Energy Efficiency." https://saveonenergy.ca/First-Nations-Energy-Programs/Remote-FN-Energy-Efficiency-Program

[233] NMR Group Inc. and Resource Innovations, Inc., *Interim Framework Remote First Nations Energy Efficiency Pilot Program Evaluation Report*, prepared for the IESO (2023), 9. https://www.ieso.ca/-/media/Files/IESO/Document-Library/conservation/EMV/2022/PY2022_IF_RFNEEPP_Evaluation_Report.ashx

[234] Hydro One Remote Communities, "REINDEER Renewable Energy Program." https://www.hydrooneremotes.ca/reindeer-energy-program

Independent power producer (IPP) market

The standard IPP policy offered to remote First Nations communities in Ontario is accessible through the Renewable Energy Innovation Diesel Emissions Reduction (REINDEER) program by HORCI. REINDEER offers to pay the 3-year historical average cost of supplying diesel fuel specific to that community, and the program requires Indigenous support or participation. These rates are listed publicly on HORCI's website and range from 28.2 cents/kWh to $1.02/kWh, with most communities in the 40- to 60-cent range.[235]

Power purchase agreements are negotiated based on 10-year contracts, which can be extended to support longer terms on a project by project. These contracts end if the community is connected to the electricity grid, potentially disincentivizing community projects if there is a potential for future grid connection.

IPP policy is well defined, with published prices for each community.

[235] Hydro One Remote Communities, "*REINDEER" Guidelines* (2024), 2. https://www.hydrooneremotes.ca/upload/documents/for-communities/2024-reindeer-guidelines.pdf

Community outcomes

Ontario's 2025 strategy builds on the success of the Watay transmission line project at bringing First Nations leaders, the federal government, and the province together to build diesel-reducing projects. This success did not come easily, as First Nations' leaders had been advocating for grid connection for decades, and to get it done involved forming a coalition of 24 First Nations owners, partnering with the utility, lining up funding from the federal government, and earning the support of the province with permitting and a loan.[236]

As the largest First Nations-led diesel reduction project in the country, the Watay transmission line has already significantly reduced diesel use in Ontario's remote communities and provided a host of additional benefits for improving quality of life through reduced energy costs, improved health outcomes, and removed load restrictions.[237]

The Ontario government has announced plans to explore grid connection with five more remote communities, and other Indigenous-led renewable energy projects have been initiated or installed in Ontario's remote communities.

The Fort Severn Solar Project includes a 300 kW solar system capable of reducing diesel demand by 20% and generating $250,000 to $350,000 in revenue.[238] A 6.5 MW biomass cogeneration plant in Whitesand First Nation was recently awarded $35 million in federal funding.[239] Gull Bay First Nation installed a solar battery system to reduce diesel, but the project currently sits idle due to technical complications and challenges with project partners, highlighting the importance of close collaboration between utilities and communities to ensure projects are successful.[240]

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[236] Wataynikaneyap Power, "Purpose & History." https://www.wataypower.ca/project/purpose

[237] Wataynikaneyap Power, "Socioeconomic Benefits." https://www.wataypower.ca/benefits/socio

[238] Logan Turner, "Ontario's most northern First Nation goes green with their first solar project," *CBC News*, November 5, 2021. https://www.cbc.ca/news/canada/thunder-bay/fort-severn-solar-1.6237812

[239] Canadian Biomass Staff, "Feds put $35M towards Whitesand First Nation biomass co-gen facility" *Canadian Biomass Magazine*, March 1, 2023. https://www.canadianbiomassmagazine.ca/feds-put-35m-towards-whitesand-first-nation-co-gen-facility/

[240] Indigenous Clean Energy, "Powering Possibility: Leadership, learning, and local energy in Gull Bay First Nation," April 29, 2025. https://www.linkedin.com/pulse/powering-possibility-leadership-learning-local-energy-gull-jmizc/

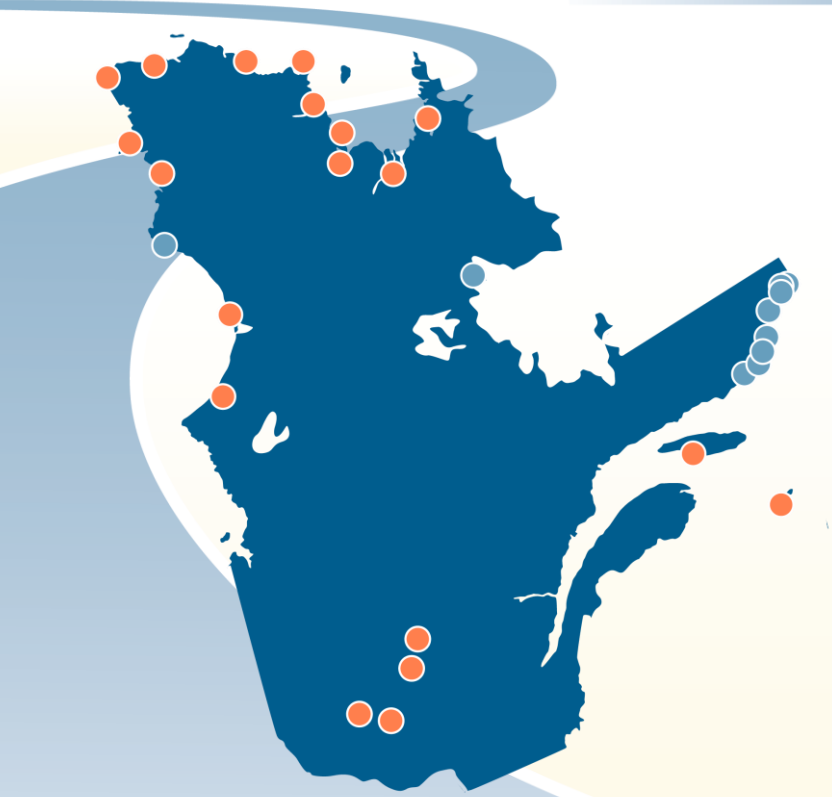
Priorities for action

Ontario has made a significant progress on diesel reduction through supporting the Watay project, and future grid connection plans and commitments to partnerships on major projects are promising. Moving these partnerships forward in a good way that centres Indigenous leadership will be essential to ensuring continued success.

The province should also continue to ensure it is creating options for communities to pursue their energy aspirations by addressing funding gaps for smaller community-scale projects. The additional funding stream added to the IESP in 2025 is a relatively unique approach to supporting small community projects with an annual sum, but many projects in remote communities exceed the cost limit for the IESP but are not big enough to qualify for the province's loan program.

As the province advances its energy future with the actions in the *Energy for Generations* plan, it will be critical that lessons learned about working in partnership with remote communities from existing projects are integrated into future developments. This can help create more transparent, consistent, and reliable partnerships based on shared consensus and mutual benefit.

Photo: Wataynikaneyap Power, Muskrat Dam Substation, ON, 2023



- Diesel Microgrid Community
- Hydro and Diesel Microgrid Community

Quebec

Quebec hosts 22 remote communities, 14 of which are in the Inuit region Nunavik

Clean energy to displace diesel has gained significant momentum in Quebec, with a high degree of collaboration between Indigenous organizations, the province, the utility, and the federal government. Ambitious targets and significant funding at the provincial level have helped to keep the priority on supporting community-led projects.

Collaboration with rights-holders	Collaborative partnerships with Indigenous organizations have yielded positive results in supporting community-owned projects.
Plans and strategies	Strong plan with an ambitious target for renewable energy integration in remote communities.
Funding and financing	Significant provincial investment in clean energy projects for remote communities.
Programs for efficient buildings	Energy efficiency programs exist but are not tailored to remote Indigenous communities.
Independent power producer (IPP) market	A self-generation policy exists, but it is not tailored towards advancing community energy projects.

Restoring the flow: Quebec

Clean energy has gained significant momentum in Quebec with remote communities across the province pursuing innovative projects to reduce emissions. Quebec has 22 remote Indigenous communities, 14 of which are in the Inuit region Nunavik. The Inuit of Nunavik are advocating for clean energy solutions and climate change adaptation given the disproportionate effects of climate change on their identity, culture, and well-being.[241]

Inuit-owned Tarquti Energy Corporation is leading the charge in accelerating the energy transition in Nunavik, developing renewable energy projects in eight communities and supporting community engagement and capacity building throughout all 14 communities in the region.[242]

These projects, as well as others in the remaining remote communities in Quebec, are made possible through a robust plan for diesel reduction, a priority on developing partnerships, and supporting Indigenous-led clean energy projects.

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[241] Makivvik, *Nunavik Climate Change: Adaptation Strategy* (2024), 9. https://www.makivvik.ca/nunavik-climate-change-adaption-strategy/#1

[242] Tarquti Energy, "Leading Nunavik's renewable energy transition." https://tarquti.ca/

Photo: Green sun Rising, Maklavik Corp. Head Office 20 kW, September 2017

Collaboration with rights-holders

The Government of Quebec has taken steps to collaborate with remote communities on clean energy, including consultation on its 2030 energy plans and coordinating regular meetings with project teams from remote communities, Hydro-Québec, and Natural Resources Canada.

In response to feedback from Indigenous engagement sessions to enhance local and regional initiatives, Quebec has put forward significant funding for the Kativik Regional Government and the First Nations of Quebec and Labrador Sustainable Development Institute to support Indigenous community projects.[243] Tarquti also has partnership agreements with Hydro-Québec and the federal government for ongoing regional engagement on clean energy development in Nunavik.[244]

Quebec's approach to collaboration has been centred on building partnerships with Indigenous governments and organizations to support capacity development and community-owned projects. This approach has empowered those organizations to develop community-specific solutions and create opportunities for more Indigenous-led clean energy projects.

Well resourced, collaborative partnerships with Indigenous organizations have yielded positive results in supporting community-owned projects.

[243] Government of Quebec, "Québec Grants over $10 Million to Support First Nations and Inuit Climate Leadership," news release, August 3, 2023. https://www.quebec.ca/en/news/actualites/detail/quebec-grants-over-10-million-to-support-first-nations-and-inuit-climate-leadership-49816

[244] Tarquti Energy, "History." https://tarquti.ca/about-us/#history

Quebec

Plans and strategies

In 2020, the Government of Quebec released the 2030 Plan for a Green Economy, which lays out the foundation and initiatives for reducing greenhouse gas emissions and electrifying the economy.[245] The plan was developed in consultation with Indigenous groups and sets a target to supply remote communities with 80% renewable energy by 2030, with a stated objective to support diesel reduction in remote communities.[246] The government annually publishes implementation plans covering a five-year period that outline planned actions and areas of investment to achieve the plan's goals.[247]

Hydro-Québec also has strategies and initiatives to decarbonize remote communities, which are outlined in its strategic plan for 2022 to 2026.[248] It has also set a goal of 80% renewable energy generation in off-grid communities and has committed to supporting Tarquti in advancing community-led clean energy projects.[249]

Hydro-Québec develops long-term resource plans for off-grid remote communities every five years. These plans are created in consultation with the communities and detail energy efficiency projects and conversions of off-grid energy systems while ensuring power reliability.[250]

Strong plan with an ambitious target for renewable energy integration in remote communities.

[245] Government of Quebec, *2030 Plan for a Green Economy* (2020). https://cdn-contenu.quebec.ca/cdn-contenu/adm/min/environnement/publications-adm/plan-economie-verte/plan-economie-verte-2030-en.pdf

[246] Government of Quebec, *Consultation Conclusion, Plan for Green Economy* (2020). https://cdn-contenu.quebec.ca/cdn-contenu/adm/min/environnement/publications-adm/plan-economie-verte/rapports-consultation/synthese-autochtones.pdf

[247] Government of Quebec, Plan pour une économie verte 2020 : *Plan de mise en œuvre 2024–2029* (2024), 3. https://cdn-contenu.quebec.ca/cdn-contenu/adm/min/environnement/publications-adm/plan-economie-verte/plan-mise-oeuvre-2024-2029.pdf

[248] Hydro-Québec, *Strategic Plan 2022–2026*. https://www.hydroquebec.com/about/publications-reports/strategic-plan.html

[249] Tarquti Energy, "History." https://tarquti.ca/about-us/#history

[250] Hydro-Québec, *Plan D'Approvisionnement 2023-2032 Des Réseaux Autonomes Complément D'Informations (2022),* 13. https://www.hydroquebec.com/data/achats-electricite-quebec/pdf/complement-dinformation-du-plan-dapprovisionnement-2023-2032.pdf

Community project funding and financing

The 2030 Plan for a Green Economy has an initiative to support Indigenous communities taking action on climate change, of which over $10 million was disbursed in 2023 to support clean energy development and energy planning.[251] The most recent implementation plan (2024–2029) budgets $208.1 million for planning and developing renewable energy projects in off-grid remote communities.[252]

This funding is being allocated in three different areas. The first is planning and capacity building, which includes providing funds to organizations such as Tarquti who conduct community engagement and employ community energy champions. The second is for Hydro-Québec to upgrade diesel plants and microgrids to be ready for renewable energy integration, and the third is direct funding for capital investment and community-owned projects.

Significant provincial investment in clean energy projects for remote communities.

[251] Government of Quebec, "Québec Grants over $10 Million to Support First Nations and Inuit Climate Leadership," news release, August 3, 2023. https://www.quebec.ca/en/news/actualites/detail/quebec-grants-over-10-million-to-support-first-nations-and-inuit-climate-leadership-49816

[252] *Plan de mise en œuvre 2024–2029.*

Programs for efficient buildings

There are currently no government programs for energy efficiency or retrofits that are specifically tailored to remote Indigenous communities; however, such programs are under development.[253]

The Government of Quebec does offer several programs that are available to all residents. These include the Rénoclimat program, which provides grants for improving the energy efficiency of buildings,[254] and the Éconologis program, which offers low-income residents individualized advice and upgrades to improve the energy efficiency of their homes.[255]

Hydro-Québec provides options for customers to implement a range of energy efficiency measures in their buildings through the LogisVert Efficient Homes Program, such as upgrading roof insulation and improving caulking.[256]

Hydro-Québec also offers a net metering program for customers who have installed renewable energy generators that are connected off-grid system. Under the program, customers can inject surplus energy into the grid in exchange for credits that are valued at the cost of displaced energy, roughly $0.55/kWh for Arctic diesel customers. However, the size of the local renewable energy generator is limited by the customer's power consumption and the type of microgrid connection they have.[257]

Energy efficiency programs exist but are not tailored to remote Indigenous communities.

[253] Bureau de la transition climatique et énergétique, personal communication, September 13, 2024.

[254] Government of Quebec, "Rénoclimat Program." https://transitionenergetique.gouv.qc.ca/en/residential/programs/renoclimat

[255] Government of Quebec, "Éconologis Program." https://transitionenergetique.gouv.qc.ca/en/residential/programs/econologis

[256] Hydro-Québec, "LogisVert Efficient Homes Program." https://www.hydroquebec.com/residential/energy-wise/financial-assistance/logisvert.html

[257] Hydro-Québec, "Net Metering for Rate D, DM, DN, or G customer-generators served by an off-grid system - Option III." https://www.hydroquebec.com/residential/customer-space/rates/net-metering-option-iii.html

Independent Power Producer (IPP) market

Hydro-Québec does not have an IPP policy for remote communities, though it does have a self-generation policy that allows for customers to produce electricity and contribute it to the grid. Bringing community projects online under this program is the utility's main strategy for achieving the 80% renewable energy goal.

When considering a diesel-reducing project by an IPP, Hydro-Québec must consider supply reliability, reduced costs, greenhouse gas emission reduction, and social and environmental acceptability – evaluating these impacts is required by the province's energy regulator. Hydro-Québec also looks at how the project could support economic reconciliation and how the benefits of the project will flow back to the community.

Power purchase agreements are negotiated on a project-by-project basis, and there is no streamlined process for supporting diesel reducing projects. This has resulted in long timelines and difficult, resource-intensive negotiations, delaying project deployment.

While several major projects have come to fruition under the self-generation policy, it could be strengthened with a dedicated policy for remote community projects that provides better price clarity, a transparent negotiations framework, and a clear process for technical integration.

A self-generation policy exists, but it is not tailored towards advancing community energy projects.

Community outcomes

Quebec is making strides towards its ambitious goal of integrating 80% renewable energy generation in off-grid Indigenous communities by 2030. As of September 2024, it has achieved 32% renewable energy.[258] Collaboration between government and Indigenous groups combined with ambitious targets have resulted in several completed diesel reducing project and many more planned in the province's off-grid Indigenous communities.

The villages of La Romaine and Unamen Shipu are among several diesel-dependent communities that have been connected to the electricity grid, and a plan has been announced to connect the remote community of Kitcisakik.[259]

Other remote communities have leveraged their renewable resource potential to bring major projects online. In the Nunavik community of Inukjuak, the Innavik hydro project, a 7.5 MW run-of-the-river hydroelectric facility commissioned in 2023, has reduced the community's diesel dependence by 80%.[260]

Other major projects are in progress, such as the Whapmagoostui Kuujjuaraapik hybrid power plant project, which intends to integrate wind energy and battery storage into the existing diesel facility, reducing diesel consumption by 40%.[261] Hydro-Québec and the community of Opitciwan have signed a deal to implement a residual forest biomass co-generation plant.[262] And the village of Puvirnituq will see the construction of a new thermal generating station coupled with renewable energy technologies.[263]

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[258] Government of Quebec, "Cibles gouvernementales de l'action climatique," September 24, 2024. https://app.powerbi.com/view?r=eyJrIjoiMzQyMTYzOGItNDMzNC00MmU5LWI2Y2YtMDQwYjU2OWI1YTQ1IiwidCI6IjQyNjJkNGVjLTVhNjctNDk1Ny1hYmI2LWJmNzhhY2E2YTZmNSJ9

[259] Lindsay Richardson, "Hydro-Quebec sets out plan to hook up Algonquin community of Kitcisakik with electricity," *APTN News*, May 4, 2022. https://www.aptnnews.ca/national-news/hyrdo-quebec-sets-out-plan-to-hook-up-algonquin-community-of-kitcisakik-with-electricity/

[260] Innergex, "Site Innavik." https://www.innergex.com/en/sites/innavik

[261] KWREC, "KWREC Great Whale Rive Wind Project - Brochure Updates 2024." https://kwrec.ca/2024/04/11/kwrec-great-whale-river-wind-project-brochure-updates-2024/

[262] Hydro-Québec, *Quarterly Bulletin: First Quarter* (2023), 3. https://www.hydroquebec.com/data/documents-donnees/pdf/quarterly-bulletin-2023-1.pdf

[263] Hydro-Québec, *New Thermal Generating Station in the Northern Village of Puvirnituq* (2021). https://www.ree.environnement.gouv.qc.ca/dossiers/3215-10-014/3215-10-014-5.pdf

Priorities for action

The ambitious goal set by both the province and utility of 80% renewable generation in remote communities presents a significant technical challenge for Hydro-Québec and community-led IPPs to ensure that the microgrids can successfully and reliably integrate high-penetration renewable energy in parallel with diesel generation. Hydro-Québec has developed its own grid-scale battery, which is in use in Quaqtaq and Kuujjuarapik and could be instrumental in achieving greater diesel reduction on the other grids.[264,265] Deploying batteries and investing in other infrastructure to integrate renewable energy is highly expensive for the utility and likely to attract the attention of the regulator, which does not have a clear mandate to support these types of investments. Regulatory reform to enable remote community clean energy projects is therefore necessary and should be a priority.

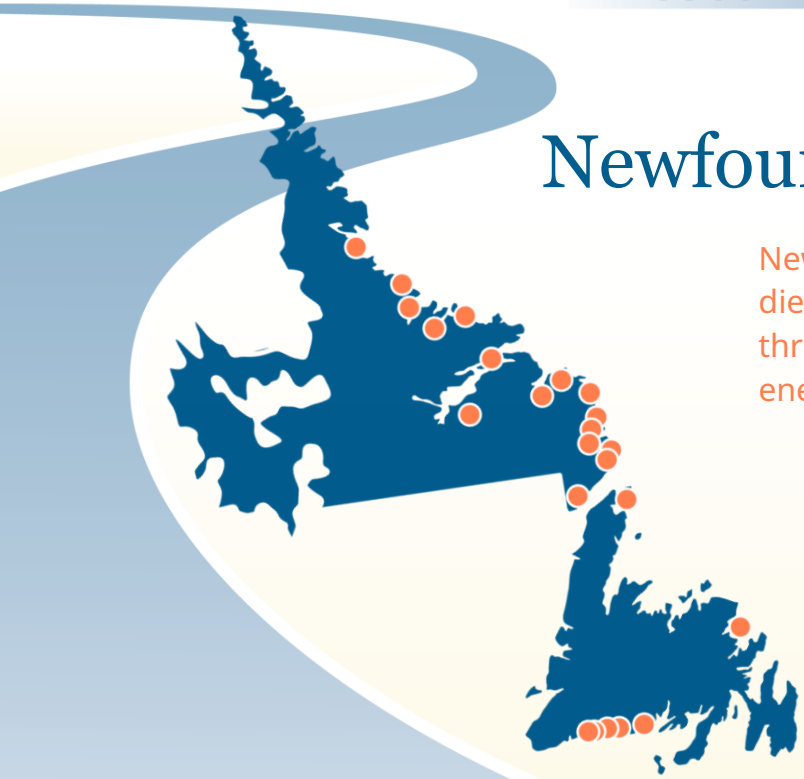
As battery and other microgrid technologies mature, Quebec can make it easier for communities to develop renewable energy by a publishing a clear, transparent IPP policy that is tailored to the unique goal of reducing diesel with remote community projects.

Quebec's strong funding landscape and support for capacity-building partnerships have enabled fruitful collaborations between the provincial and federal government, the utility, and Indigenous leaders. Moving forward, Quebec must sustain and build on this progress by collaborating on UNDRIP-aligned legislation and regulatory reform and facilitate program design tailored to remote and Indigenous communities.

[264] Evlo Energy, "Quaqtaq." https://evloenergy.com/projects/quaqtaq/

[265] Evlo Energy, "Kuujjuarapik." https://evloenergy.com/projects/kuujjuarapik/

Photo: Innergex Renewable Energy, Innavik Hydro, QC.



- Diesel Microgrid Community
- Hydro and Diesel Microgrid Community

Newfoundland and Labrador

Newfoundland and Labrador is home to 22 diesel-dependent communities, represented by three distinct groups all interested in community energy for diesel reduction.

The Nunatsiavut Government, the Innu Nation, and the NunatuKavut Community Council have been strong advocates for clean energy and diesel reduction. The utility and the province are willing partners, but capacity constraints and policy barriers still hamper progress.

Collaboration with rights-holders	Bilateral engagement on energy initiatives is happening, though there is no forum for collaborative development of overarching policy direction or long-term planning.	
Plans and strategies	Strategy documents have good objectives but lack detailed plans for execution.	
Funding and financing	Green Transition Fund can be used for clean energy projects, but the fund is not directly targeted at remote communities.	
Programs for efficient buildings	Robust, comprehensive programs for energy efficiency and demand management in remote communities.	
Independent power producer (IPP) market	IPP framework exists, but market is not clear enough to incentivize community-led energy projects.	

Restoring the flow: Newfoundland and Labrador

Newfoundland and Labrador has 22 remote communities that rely on diesel — known as diesel-system communities — which together represent about 2% of the province's population.[266] There are three Indigenous groups representing diesel-system communities in Labrador: the Nunatsiavut Government, the Innu Nation, and the NunatuKavut Community Council. Newfoundland and Labrador Hydro (NL Hydro) supplies electricity to all 22 remote communities in the province.

The Nunatsiavut Government, which represents Inuit in five diesel-dependent communities along the northern coast of Labrador, and the NunatuKavut Community Council (NCC), which represents ten remote Indigenous communities in southern Labrador, have been strong advocates for clean energy and diesel reduction, with many small solar projects installed and several larger projects in development.[267,268]

The Government of Newfoundland and Labrador supports the objective of reducing diesel consumption through Indigenous-led community renewable energy projects. Advancing this goal requires collaborative partnerships between the diverse Indigenous groups, the utility, the province and the federal government.

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[266] Newfoundland and Labrador Hydro, "Our Electricity System." https://nlhydro.com/about-us/our-electricity-system/

[267] Nunatsiavut Government, "Nunatsiavut kavamanga Government." https://nunatsiavut.com/

[268] NunatuKavut Community Council, "Our Communities." https://nunatukavut.ca/about/our-communities/

Photo: Green Sun Rising, Community Center, Nain, NL.

Collaboration with rights-holders

The Nunatsiavut Government, the Innu Nation, and the NunatuKavut Community Council each engage with the provincial government and NL Hydro on matters related to energy generation in their Labrador communities.

There is a regular working group between the Nunatsiavut Government, the federal government the province, and NL Hydro to consider and implement specific energy projects, policies, and programs.[269] There is also a working group between NL Hydro and the Nunatsiavut Government to discuss new loads on the remote systems.

Of the two Innu communities in Labrador, only Natuashish is powered by diesel. NL Hydro meets with the Innu Nation on a regular basis.

The NunatuKavut Community Council is not federally recognized as a rights-holder,[270] but as an Indigenous representative organization that is supporting community clean energy they meet quarterly with NL Hydro and the province to discuss clean energy projects and advancing its energy agenda with the government.

The province has committed to implement a program to support clean energy in partnership with Indigenous governments and organizations, but details of how that program will work to build consensus and balance the unique priorities of all Indigenous governments and organizations is still lacking.

Bilateral engagement on energy initiatives is happening, though no well-resourced forum for collaborative development of overarching policy direction or long-term planning.

[269] Nunatsiavut Government, *Nunatsiavut Energy Security Plan* (2016), 8. https://www.nunatsiavut.com/wp-content/uploads/2021/06/Nunatsiavut-Energy-Security-Plan.pdf

[270] The NunatuKavut Community Council has signed an MOU with the federal government to negotiate recognition of indigenous rights, though the Innu Nation and the Nunatsiavut government reject the NunatuKavut Community Council's assertion of Indigenous rights.

Brett Forester, "Court dismisses Innu Nation challenge against recognition of disputed Labrador group," CBC News. June 12, 2024. https://www.cbc.ca/news/indigenous/innu-nunatukavut-federal-court-mou-1.7233180

Newfoundland and Labrador

Plans and strategies

The Government of Newfoundland and Labrador first outlined its goal to reduce diesel consumption in its 2019 climate change strategy, which identified the action to work with stakeholders and Indigenous governments and organizations to identify opportunities for diesel reduction.[271]

The province built upon this commitment in its 2021 renewable energy plan, establishing three medium-term actions: support Indigenous-led renewable energy development in remote communities; work with Hydro to create an independent power producer policy; and address the technical challenges with renewable energy integration.[272] The plan also specifies a long-term action to maximize the opportunity for Indigenous-led and -owned projects.

In 2025, the province published the *Climate Change Mitigation Plan 2025-2030*, which articulates the intent to "implement a program, in partnership with Indigenous Governments and Organizations," and Hydro to reduce reliance on diesel electricity generation.[273]

In NL Hydro's 2023-2025 strategic plan, the utility sets the goal of integrating renewable energy in diesel-system communities.[274]

The strategy documents are clearly supportive of collaborating with Indigenous groups to advance community-led renewable energy, but lack key details such as specific actions, timelines, funding commitments, accountability mechanisms, and further plans for addressing persistent barriers.

Strategy documents have good objectives but lack detailed plans for execution.

[271] Government of Newfoundland and Labrador, *The Way Forward On Climate Change in Newfoundland and Labrador* (2019), 24. https://www.gov.nl.ca/ecc/files/publications-the-way-forward-climate-change.pdf

[272] Government of Newfoundland and Labrador, *Maximizing Our Renewable Future* (2021), 18. https://www.gov.nl.ca/iet/files/Renewable-Energy-Plan-Final.pdf

[273] Government of Newfoundland and Labrador, *Climate Change Mitigation Action Plan,* (2025), 15.

[274] Hydro, *We are Hydro: Strategic Plan 2023-2025* (2023), 38. https://nlhydro.com/wp-content/uploads/2023/12/NEW-strategic-plan-FINAL-DEC-12-WEB.pdf

Community project funding and financing

The province launched the Green Transition Fund in 2023 to support commercial and non-commercial applicants, including Indigenous governments and organizations, in the province's transition to net zero.[275] Established through an agreement between the provincial government and the West White Rose oil and gas project, the $100 million fund is distributed across three categories: rural, Indigenous, and general.[276] Indigenous governments and organizations are eligible for grants to cover 50% of eligible project costs, up to a maximum of $3 million.[277]

This relatively new fund represents a strong, long-term opportunity for community clean energy. In the most recent funding announcement, the Nunatsiavut Government was awarded $3 million to support the Nain Wind Micro-Grid Project, and the NunatuKavut Community Council received $157 thousand to explore opportunities for geothermal energy.[278]

Green Transition Fund can be used for clean energy projects, but the fund is not directly targeted at remote communities.

[275] Government of Newfoundland and Labrador, "Green Transition Fund Program." https://www.gov.nl.ca/iet/funding/green-transition-fund-program/

[276] Government of Newfoundland and Labrador, "Provincial Government Launches New Green Transition Fund," media release, June 21, 2023. https://www.gov.nl.ca/releases/2023/iet/0621n04/

[277] Government of Newfoundland and Labrador, "Green Transition Fund Program." https://www.gov.nl.ca/iet/funding/green-transition-fund-program/

[278] Government of Newfoundland and Labrador, "Five New Projects Approved Through Green Transition Fund," media release, June 11, 2025. https://www.gov.nl.ca/releases/2025/iet/0611n03-2/

Programs for efficient buildings

NL Hydro offers an energy efficiency and demand management program called takeCHARGE, which promotes energy efficiency awareness and includes energy efficiency rebate programs that incentivize fuel switching and provide energy savings across the province. Under the broader program, NL Hydro manages the Isolated Communities Energy Efficiency Program, which specifically targets communities that rely on diesel power.

The program for isolated communities offers homeowners and businesses outreach and education on energy efficiency, installation of energy efficient products, and other energy efficiency and demand management opportunities.[279] The program supports include covering up to 80% of the costs of a wide range of energy savings technologies for businesses, such as efficient motors and refrigeration systems. From 2012 to 2023, the program created jobs for over 55 residents in the diesel-system communities and achieved over 12.5 GWh in energy savings.

NL Hydro also runs a net metering program that allows residential and commercial customers who operate small renewable generation facilities to sell their surplus power to the utility.[280] Projects are limited to 100 kW and cannot be sized to exceed the customer's annual energy requirements.[281]

Robust, comprehensive programs for energy efficiency and demand management in remote communities.

[279] Take Charge, "Isolated Communities Energy Efficiency Program." https://takechargenl.ca/residential/rebate-programs/isolated-systems-energy-efficiency-program/

[280] Newfoundland and Labrador Hydro, "Net Metering." https://nlhydro.com/customer-service/accounts/net-metering/

[281] Newfoundland and Labrador Hydro, *Net Metering Interconnection Requirements* (2017), 5. https://nlhydro.com/wp-content/uploads/2023/12/Newfoundland-Hydro-Interconnection-Requirements-FINAL.pdf

Newfoundland and Labrador

Independent power producer (IPP) market

NL Hydro has a commercial framework for IPPs in diesel-dependent communities. Created in consultation with Indigenous partners, the framework outlines key processes and parameters for the development of Indigenous-led IPP projects, including interconnection guidelines and a power purchase agreement template. Under the IPP framework, NL Hydro purchases energy at 90% of the avoided fuel costs in each community, with the IPP retaining the rights to any renewable energy credits.[282]

Although the framework was introduced in 2022, it has yet to be published as a formal IPP policy, and more clarity on the process would support more communities accessing the opportunity to advance community clean energy projects.

IPP framework exists, but market is not clear enough to incentivize community-led energy projects.

[282] Newfoundland and Labrador, *Sustainability Report* (2022), 11. https://nlhydro.com/wp-content/uploads/2024/01/2022-Sustainability-Report.pdf

Community outcomes

Clean energy in Labrador's diesel-system communities has largely taken the form of small solar installations energized under the province's IPP framework, led by the Nunatsiavut Government and NunatuKavut Community Council.

Each of the five Nunatsiavut communities have solar projects, in the range of 15–24 kW. There are also several solar systems in the 15-30 kW range in the NunatuKavut communities of St. Lewis, Port Hope Simpson, and Black Tickle.[283,284]

In Mary's Harbour, a dormant run of river hydro plant was refurbished and reactivated in 2021 and augmented by 189 kW of solar and a 335 kW battery storage system, which reduces diesel consumption in the community by 30%.[285]

The Nain Wind Micro-Grid Project, a joint undertaking of the Nunatsiavut government and private developer Natural Forces, is expected to be the first Indigenous-led utility-scale IPP project in the province's diesel-system communities. The proposed 2.3 MW wind power project with a battery storage system has been under development since 2018 and is seen as a pilot for community-owned renewable energy the province.[286]

[283] Atlantic Centre for Energy. "Energy Spotlight: Nunatsiavut Government." https://www.atlanticaenergy.org/community-spotlight-nunatsiavut-government/

[284] NunatuKavut Community Council, "NunatuKavut Community Council helps two communities fight climate change with solar energy projects," media release, September 19, 2023. https://nunatukavut.ca/article/nunatukavut-community-council-helps-two-communities-fight-climate-change-with-solar-energy-projects/

[285] Natural Resources Canada, "Mary's Harbour Renewables," 2025. https://natural-resources.canada.ca/funding-partnerships/mary-s-harbour-renewables

[286] Nunatsiavut Government, *Nain Wind Micro-Grid Project – May 2023 Newsletter*. https://nunatsiavut.com/wp-content/uploads/2023/05/Nain-Newsletter-May-2023.pdf

Newfoundland and Labrador

Priorities for action

The provincial government has set ambitious decarbonization and renewable energy goals, including reducing reliance on diesel generation in remote communities and setting a provincial 2050 net zero target, though significant challenges remain.

In alignment with the goals set out in its renewable energy strategy, the province should work with each Indigenous government and organization to identify specific actions to support community-led projects. The province should provide capacity support for communities and the utility for this collaboration. Actions could include developing long-term capacity building opportunities and creating clearly defined funding opportunities for diesel reduction. This will likely require partnerships with the federal government. The province can also build upon its legislative amendment allowing the utility to consider environmental objectives in its project decisions with a refined and transparent IPP policy that creates a clear market opportunity for community projects.

As Indigenous communities and NL Hydro work to develop renewable energy in diesel-system communities, a more structured planning approach coordinated by the province in collaboration with Indigenous governments and organizations is needed to ensure common objectives to reduce reliance on diesel generation are met.

PhotoGreen Sun Rising, Hopedale, NL

National trends

There has been enormous progress in the field of remote community renewable energy since the Pembina Institute published *Power Shift in Remote Indigenous Communities*, the precursor to this report, in 2019.[287] Most jurisdictions have implemented impactful policies that create meaningful opportunity for economic development and climate action in remote communities. The success of these policies is demonstrated by the widespread Indigenous-led build out of clean energy generation projects and high uptake of programs supporting capacity building, for community energy planning and energy efficiency initiatives.

There has been a notable evolution of the discussion around renewable energy in remote communities, from 'decarbonization at all costs' towards creating long-term energy security and advancing energy sovereignty. This shift in tone recognizes the importance of Indigenous leadership in community energy and energy policy for remote communities, and acknowledges the place diesel may have, in partnership with renewable energy and grid storage, to ensure remote communities have a safe, reliable, and clean source of power.

Our national scan of remote energy policy suggests that pathways for remote decarbonization are widening, but there is significant variation in how those pathways have been designed and implemented. Even so, common trends and strategies have emerged across jurisdictions that are yielding positive outcomes for Indigenous-led clean energy for remote communities. We have seen that the most progress is made in jurisdictions with strong policies across all five streams, though no jurisdiction can say the work is done. The following pages highlight some encouraging progress in each policy stream and areas where more attention is needed across all of the jurisdictions.

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[287] Dylan Hereema, Dave Lovekin, *Power Shift in Remote Indigenous Communities* (Pembina Institute, 2019). https://www.pembina.org/pub/indigenous-power-shift

Photo: Pembina Institute

National trends

Collaboration with rights-holders

There is still work to be done to advance and deepen collaboration and establish meaningful co-governance across every jurisdiction. While some jurisdictions have built a strong foundation through recurring working groups, modern treaties, and legislation of UNDRIP, the actual ability of Indigenous peoples to make decisions about their energy futures and participate in policy development is hamstrung by a complex web of legal, regulatory, social, and political factors.

Looking forward, the implementation of UNDRIP in legislation in jurisdictions like B.C. and the Northwest Territories, and across Canada with the federal United Nations Declaration Act, has the potential to create transformative changes necessary to ensure Indigenous voices are front and center in energy discussions about their territories. Progress made thus far, including established and recurring working groups, Indigenous engagements, Indigenous councils, and all forms of agreements, have created consensus-based solutions that have advanced community clean energy and energy security in a good way.

Plans and strategies

Strong plans and strategies with targets, dates, and accountability have been shown to galvanize action across all five categories we examined. B.C., Quebec, and the Yukon all have taken policy action across the different streams with strong plans and ambitious targets that mandate government and utility actors to develop strong relationships with Indigenous leadership and tackle the barriers to diesel reduction head on. Across the board, these plans are strongest when developed in collaboration with remote community representatives and Indigenous leadership. Jurisdictions with strong plans and strategies also tend to score well in most areas, as effort is more effectively coordinated across provincial and territorial government, utilities, and the federal government.

Community project funding and financing

Most jurisdictions rely on some level of federal partnership to deliver funding programs for community decarbonization and renewable energy initiatives. These partnerships go a long way to ensure that delivery of funds is tailored to the communities and projects that need them most. Jurisdictions with larger tax bases have contributed more of their own provincial budgets to support remote community projects, but other jurisdictions must rely more heavily on federal dollars to support their programs.

Funding these programs aligns with federal priorities of decarbonization, nation-building, protecting Arctic and Canadian sovereignty, and reconciliation with Indigenous Peoples.

National trends

Programs for efficient buildings

Most jurisdictions have strong programs for energy efficiency, which is a win-win, as efficiency saves costs for both the utility and the customers. But boilerplate programs that do not address the specific needs of remote communities see low uptake. Jurisdictions that have created funding for full-time program staff such as clean energy champions at the community level see much higher uptake as they are able to build community buy-in and identify and address the unique barriers to project implementation in residents' homes and on community buildings.

Independent power producer (IPP) policies

Jurisdictions have taken many different approaches with respect to IPP policies: some are very prescriptive, while others leave it up to the utility and the IPP to negotiate an agreement. The north star in either case is a market for clean energy that is well-defined and easy to participate in. Prolonged, closed-door negotiations drain resources from both projects and utilities, so policies to bring clarity to the negotiation process and offer guidance or direction on the price for renewable energy are key enablers to market success. The price also should incentivize development, creating a business case for communities to participate in the IPP market with community-led projects. While several jurisdictions still don't have IPP policies, there have been welcome developments in B.C., Ontario, the Northwest Territories, and Nunavut around implementing or augmenting IPP policies.

Looking forward, it is critical that utilities and community-led projects continue to work together to monitor and understand how to support higher levels of renewable energy penetration on the grid; create technical pathways for energy storage; and create more resilient, clean, and reliable microgrids for remote communities.

Restoring the flow across jurisdictions

	Collaboration with rights holders	Plans and strategies	Funding financing	Efficient buildings	IPP Market
Federal Government					N/A
Yukon					
Northwest Territories					
Nunavut					
British Columbia					
Alberta					
Saskatchewan					
Manitoba					
Ontario					
Quebec					
Newfoundland and Labrador					

Conclusion

The policies, programs, and initiatives reviewed in this report have been designed and implemented by Canadian governments in partial fulfillment of their ongoing obligation to reconcile relations with Indigenous Peoples for the harms from colonization. The Canadian government already has a responsibility to all citizens to provide safe, affordable, and reliable power and the mandate to pursue climate action to reduce emissions and protect the environment. Implementing these policies is a win-win for the government and communities.

Clean energy in remote Indigenous communities is about more than reducing diesel. Developing renewable energy is a pathway to community flourishing. It can create long-term guaranteed revenue that stays in the community, improve energy security and affordability, and foster community growth and well-being. The community clean energy journey — whether community energy planning, energy efficiency projects, or utility-scale clean energy projects — builds capacity to advance a shared vision for stronger, healthier communities for generations to come.

There has been enormous progress towards supporting remote community energy priorities in the last decade. These policies, developed in response to Indigenous vision, advocacy, and leadership, are playing an important role in bringing new energy systems to life and restoring the flow of the myriad benefits of energy development back to remote Indigenous communities.

Appendix A. Acknowledgements

We would like to thank the following organizations for speaking to us to help shape this research:

Natural Resources Canada

Crown-Indigenous Relations Northern Affairs Canada

Council of the Yukon First Nations

Yukon Energy Corporation

Yukon Development Corporation

Government of Yukon

Government of the Northwest Territories

Government of Nunavut Climate Change Secretariat

Nunavut Nukkiksautiit Corporation

B.C. Ministry of Energy and Climate Solutions

BC Hydro

Manitoba Hydro

Kisik Clean Energy

Ontario Energy Board

Hydro-Québec

Quebec Ministry of the Environment, the Fight Against Climate Change, Wildlife and Parks

NunatuKavut Community Council

Nunatsiavut Government

Newfoundland and Labrador Hydro

Newfoundland and Labrador Department of Industry, Energy, and Technology