

# Power Shift in Remote Indigenous Communities

A cross-Canada scan of diesel reduction and  
clean energy policies

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Dylan Heerema, Dave Lovekin

July 2019



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# Introduction

There are approximately 170 remote Indigenous communities in Canada, found in nearly every province and territory (except Prince Edward Island, New Brunswick and Nova Scotia), with a combined population of over 100,000 people. Remote communities – defined in the context of this report as those without access to the North American electricity grid or natural gas infrastructure – are scattered throughout Canada’s landscape, from Vancouver Island, the communities along the Labrador coast, to the Arctic Circle and above. Many of these communities are extremely isolated, either by geography, lack of infrastructure, or by the vast distances separating them from each other. Over three quarters of remote communities in Canada are Indigenous, including First Nations, Métis, and Inuit communities (see Figure 1).

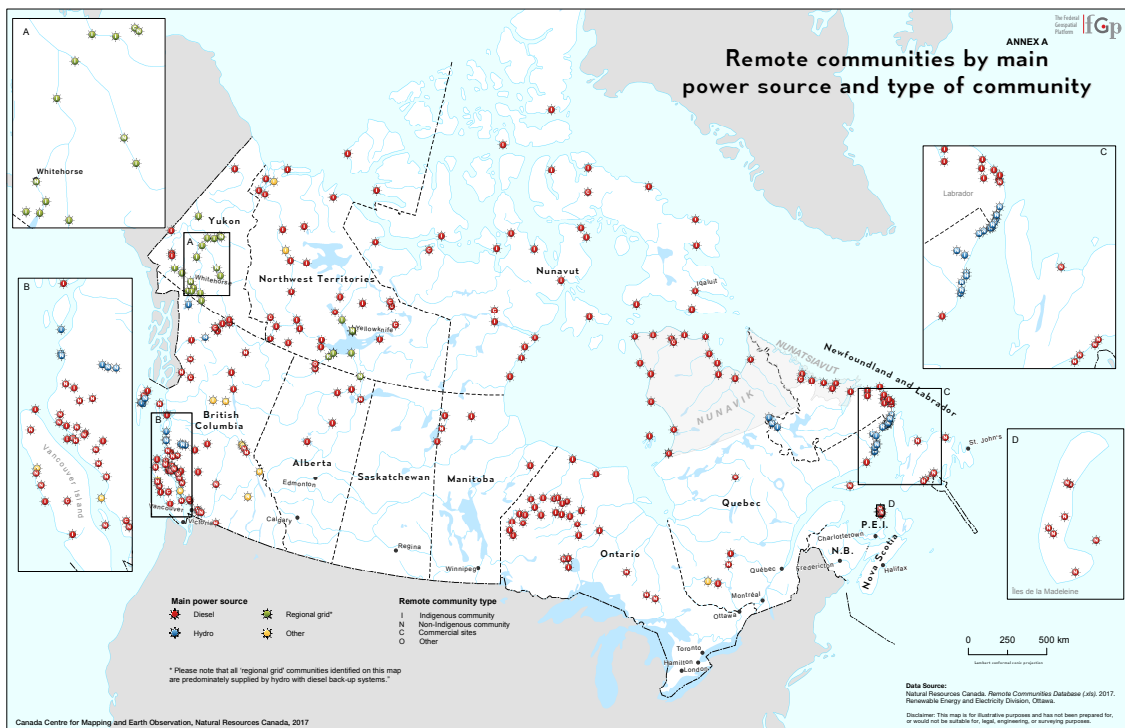


Figure 1. Remote communities in Canada

Source: Natural Resources Canada<sup>1</sup>

Remote Indigenous communities are also overwhelmingly reliant on diesel fuel for heating and electricity generation. This expensive and polluting fuel must be transported into the community at high cost, requiring road, barge and often plane transportation. With fuel deliveries so critical and infrequent, an interruption in supply

could be catastrophic for many communities. Energy security is more and more threatened with the shortening of the season for the ice roads that many communities depend on. Reliable access to essential services like heat, light, refrigeration and communication may become more tenuous as a result. Burning diesel for heat and power also creates local health and environmental issues.

Reducing reliance on diesel fuel by advancing clean energy and energy efficiency is one way to address these and other issues facing remote communities. Championing clean energy systems, energy independence, economic development, revenue generation, community resilience and reducing greenhouse gas (GHG) emissions are goals often mentioned when remote Indigenous communities discuss their plans to transition off diesel and onto clean energy.

Effective government policies and programs are one critical component in advancing community-led clean energy projects in remote Indigenous communities. Diesel reduction projects are more likely to succeed when they are backed by strong and coordinated climate and energy policies from governments, utilities, regulators and industry. Projects in Indigenous communities that prioritize authentic relationships and partnerships, and demonstrate strong support from the community are also more likely to be successful.

We define “community-led” projects as those that include a significant ownership share by the community, or projects that have been spearheaded and championed by community members rather than by private developers alone (with a focus in this report on clean power projects). This is a critical distinction for many communities — and Indigenous communities in particular — where meeting diesel reduction goals also has the potential to advance goals of self-determination and self-reliance.

In this cross-Canada scan, we evaluate the current policy environment for community-led projects in each province and territory. Three categories are considered:

- **Government direction:** Targets, plans, strategies and funding/capacity building programs (provincial/territorial) that support the transition of remote communities to clean energy.
- **Utility and regulatory policy:** The way electric utilities servicing remote community microgrids are regulated and governed, how they procure energy, and their commitment to work with proponents of clean energy projects in these communities.



- **Community project experience:** The presence of community-led clean energy projects in operation or development. This gives good insight into how effectively each jurisdiction has created a supportive environment for such projects to succeed.

## Scope

This report tracks the progress of diesel reduction and clean energy policies across provinces and territories in Canada, as they apply to remote Indigenous communities. The provinces of New Brunswick, Prince Edward Island and Nova Scotia are not considered, as these jurisdictions do not have any remote Indigenous communities.

This report focuses on policies, programs and regulations that impact energy systems in remote Indigenous communities at the federal, provincial, territorial, regulatory and utility levels. It does not consider the impact of Indigenous, local or municipal policies that might impact energy and diesel use. The intention of this report is to evaluate not the effectiveness of local or Indigenous governance, but rather the policies enacted by largely non-Indigenous entities that impact Indigenous communities.

Our intention is to track the progress of climate and energy policies that impact remote Indigenous communities' ability to develop, own and/or operate their own clean energy projects. Acknowledging the impact that reconciliation efforts by and between governments can have on the above, we broadly scan the adoption of reconciliation frameworks such as the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), some examples of modern treaties including Final Agreements, and current issues surrounding Indigenous Rights and Title. We do not extensively consider the role of Impact Benefit Agreements or other agreements in different jurisdictions that might be related to clean energy and diesel reduction projects. Research into all these topics is being conducted in greater depth by A SHARED Future, a research team considering how best to facilitate reconciliation and the implementation of Indigenous rights through clean energy programs involving Indigenous communities.<sup>2</sup>

This report aims to scan and share jurisdictional experiences in enabling community-led diesel reduction efforts. Because this assessment is intended to drive a scaling up of diesel reduction efforts, only those procurement policies that enable community-scale projects to sell power to a local microgrid are considered. This report focuses to an extent on clean power related policies, but acknowledges that energy conservation and efficiency, as well as fuel switching to clean energy sources for space heating, are critical pathways to reducing diesel consumption and reliance. We therefore evaluate

some current programs that help encourage demand-side measures, including energy conservation and efficiency programs. This report does not consider net metering or other electricity microgeneration programs, although such programs do exist in most jurisdictions.

Each section of this document also includes a snapshot of that jurisdiction's total number of remote Indigenous communities, the remote Indigenous community population in that province or territory as a percentage of the national total, and diesel fuel consumption in that province or territory as a percentage of the national total. These figures consider remote *Indigenous* communities only, and are based on the most recent data available in the Remote Communities Energy Database maintained by Natural Resources Canada.<sup>3</sup>



# Methodology

The ratings for each metric assigned to each province and territory in this scorecard reflect a combination of publicly available information and one-on-one communication with a number of stakeholders including provincial and territorial governments, Crown corporations, private industry and communities. A full list of individuals consulted during the development of this report can be found in Appendix A.

Publicly available information includes jurisdictional climate plans, energy strategies, laws and regulations, policy and program documentation, and news media. However, information available to the general public in the formats mentioned above do not paint a full picture of how policies and programs are being implemented across jurisdictions. In order to assess the “on the ground” success of policy and action, it is necessary to go beyond official documentation and consult with experts who are familiar with the progress being made in each jurisdiction. As a result, we have incorporated the perspectives of external experts in a limited number of cases.

Each province and territory’s policy environment is evaluated against seven metrics. Ratings are expressed using a green, yellow, red colour code (described for each metric below), or by a checkmark when only the presence or absence of an indicator was considered. An empty circle indicates not enough information is currently available to make an objective assessment. The ratings in this assessment are intended to provide a snapshot based on the current or very recent landscape in each jurisdiction and do not necessarily reflect the cumulative experience of that jurisdiction over time. Further information on the metrics used for each category can be found below.

Legend	 Significant policy in place	 Some policy in place	 Little or no policy in place	 Unknown
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## Government direction

We include three metrics in this category:

### Metric 1 - Long-term strategy and implementation support for reducing diesel in remote communities

Clear and ambitious diesel reduction targets (often as part of government climate or energy strategies), combined with dedicated funding for clean energy project development, are critical to accelerating the transition away from diesel reliance. This is

particularly true in communities where capital funding is still needed to advance the business case for clean energy projects. Targets and strategies also cannot be effective in isolation; they must be implemented in a timely and robust manner.

- Government has an ambitious strategy and targets specifically aimed at transitioning remote communities off diesel. Diesel reduction targets are in line with Canada’s overall commitments of reducing emissions 30% below 2005 levels by 2030, as laid out in the Pan-Canadian Framework on Clean Growth and Climate Change (PCF). These targets are actively supported through capacity building programs, infrastructure investments, and/or capital project funding.
- Government has put in place some direction or strategy for transitioning remote communities off diesel. However, the strategy is not sufficiently ambitious to be in line with Canada’s mitigation targets, is not supported by funding and programming for implementation support, and/or is not well documented.
- There are no publicly available government strategies, policies and programs that comment on how remote communities will be supported to reduce their reliance on diesel, or such documentation is too out of date to be relevant.
- Government direction in this jurisdiction is unknown or currently in flux, with major changes planned or possible in the short term.

## Metric 2 - Incentives and/or financing for clean energy and energy efficiency

Government incentive and/or rebate programs, and financing instruments, are important tools for reducing diesel consumption — particularly in the case of energy efficiency, where improvements can be made to the energy performance of buildings (thus lowering diesel consumption) but the initial cost of these measures needs to be reduced in order to make them viable for residents.

Incentives for clean energy deployment (for example, rebates on the purchase of solar panels) can also drive diesel reduction initiatives. When such programs are withdrawn or weakened, this creates uncertainty for individuals, businesses and vendors, and slows the market for products and services.

- A comprehensive suite of rebates, incentives, and/or financing instruments<sup>4</sup> can be accessed when pursuing clean energy *and* energy efficiency projects at the community and residential level. These programs are observed to be driving the market for clean energy and energy efficiency projects, products and services.

- Rebates, incentives and/or financing programs exist for energy efficiency or clean energy in remote communities, but gaps exist in the coverage or funding for these programs. For example, programs may not be directly applicable to remote communities, or may not cover a wide range of products and/or services.
- Programs supporting clean energy and energy efficiency at the residential and community level do not exist, have experienced little uptake, or have been weakened by recent cancellations or funding cuts.
- Government direction in this jurisdiction is unknown or in flux, with major changes planned or possible in the short term.

### Metric 3 - Government commitments to reconciliation and better relationships with Indigenous communities

Pursuing clean energy and diesel reduction objectives is part of a larger transition toward increased self-determination, economic development and energy independence for many Indigenous communities. Supporting these objectives can be directly linked to the obligations of colonial governments towards Indigenous Peoples, including those related to constitutionally-protected Aboriginal rights and title, historic and modern treaties, and the duty to consult.

In addition, governments that have committed to advancing reconciliation objectives, such as those defined in the United Nation Declaration on the Rights of Indigenous Peoples (UNDRIP) or the Truth and Reconciliation Commission (TRC) Calls to Action, have an obligation to re-examine existing relationships and governance structures impacting Indigenous communities in order to support these goals.

- Bold action is being taken to advance self-determination and energy independence opportunities for Indigenous communities. In addition, government has made a commitment to enshrine UNDRIP or another reconciliation framework into legislation (including by actively advancing modern treaties and/or self-government agreements where applicable).
- Government statements have been made aspiring to renew relationships with Indigenous communities, but these have not yet been backed up with ambitious action. Government has endorsed but not legislated UNDRIP or another reconciliation framework.
- The current government is taking limited to no measures to improve opportunities for Indigenous self-determination, or has weakened its level of

action on reconciliation with Indigenous Peoples. The jurisdiction has not adopted UNDRIP or another robust framework for reconciliation.

- Government direction in this jurisdiction is unknown or in flux, with major changes planned or possible in the short term.

## Utility and regulatory policy

We include two metrics in this category:

### Metric 1 - Transparent and well-supported power procurement policies

There are several ways that utilities serving remote communities can collaboratively support the transition to clean sources of energy. However, utilities should also recognize that remote Indigenous communities are uniquely poised to develop, own and operate their own clean electricity projects, as part of a desire for greater energy independence and as a means to building a strong local economy.

In order for local champions or organizations to become proponents, owners and operators of their own energy systems, a viable market for the power they generate must exist. Utilities can provide this opportunity through procurement policies, one of the most common of which is an Independent Power Producer (IPP) policy. If such programs are to be successful, they must be clearly documented, well-administered and sufficiently transparent to allow proponents of clean energy projects to fairly assess the costs and benefits of their proposed developments.

- A procurement policy is in place that allows remote community-led project proponents to sell power to the microgrid. Procurement programs are well documented and administratively supported. Historical energy use data is made freely available to project proponents. The effectiveness of the policy is validated by active community-led project development.
- Community-led projects have an opportunity to sell power to the microgrid, but such procurement policies are not well documented, not well-suited to remote communities and/or not sufficiently supported by data, clear process and administrative support. The development of community-led projects may be observed to be slowed or hindered by these issues.
- Remote community proponents either are not permitted to sell power to the microgrid or have no clear process supporting them to do so. This issue has contributed to a relative lack of community-led projects in development.

- Utility and/or regulatory policy is unknown or shifting in this jurisdiction and the impact to procurement programs is unclear.

#### Metric 2 - Clean energy valued at the avoided cost of diesel or higher

- ✓ Clean energy project proponents in remote communities are offered a power purchase agreement (PPA) rate that fairly reflects the avoided cost<sup>5</sup> of displacing diesel energy. This includes not just the marginal cost of diesel fuel, but also the value of avoided operation and maintenance and deferred capital costs associated with reducing the operation time of diesel generators when clean technologies are integrated into the microgrid.
- ✗ Clean energy project proponents are offered PPA rates below the avoided cost of energy. In some cases, this could be equal to or even below the marginal cost of diesel fuel.

### Community project experience

We include two metrics in this category:

#### Metric 1 - Existing community-owned or championed projects

- ✓ The jurisdiction has at least one example of a fully operational remote community-led clean energy project (as defined above) at a scale greater than would be covered by a net metering policy. Note that this assessment focuses on clean power projects.
- ✗ No fully operational community-led clean power projects at scale are known to exist in this jurisdiction.

#### Metric 2 - Community-led projects in development


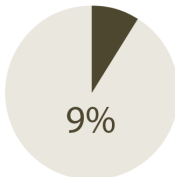
- ✓ At least one community-led clean power project is in advanced development stages in the jurisdiction (with a minimum of a funded full feasibility study or detailed engineering design work taking place).
- ✗ No community-led clean energy projects at scale are known to be in advanced stages of development in this jurisdiction.

# Progress reports

## British Columbia

Category	BC
Government direction	
Long-term strategy and implementation support for reducing diesel in remote communities	●
Incentives and/or financing for clean energy and energy efficiency	●
Government commitments to reconciliation and better relationships with Indigenous communities	●
Utility and regulatory policy	
Transparent and well-supported power procurement policies	●
Clean energy valued at the avoided cost of diesel or higher	✘
Community project experience	
Existing community-owned or championed projects	✓
Community-led projects in development	✓

Legend	● Significant policy in place	● Some policy in place	● Little or no policy in place	○ Unknown
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# of communities	% of total remote population	% of remote diesel consumption
27	 <p>5%</p>	 <p>9%</p>

### Government direction

British Columbia has for several years been a leading jurisdiction in Canada for establishing climate and energy policies supporting diesel reduction in remote communities. Further support has recently been announced by the provincial government through the 2019 CleanBC plan, including a target of reducing diesel

consumption 80% by 2030 in B.C.'s 22 largest remote communities, and renewed funding for supporting programs.<sup>6</sup> Most remote communities in B.C. are served by BC Hydro. However, ten remote communities in B.C. that operate their own diesel generation stations as independent power authorities, along with twelve communities served by BC Hydro, are included in CleanBC's diesel reduction target. This makes B.C. the jurisdiction in Canada with by far the most ambitious diesel reduction goal for remote Indigenous communities.

CleanBC's Remote Community Clean Energy Strategy supports the 80% reduction target, and has four pillars: capacity building, renewable heat, energy efficiency retrofits and clean power. Budget 2019 dedicated \$15 million to implement this strategy. Government programs that support the CleanBC plan through capital and capacity building funding include the Innovative Clean Energy Fund (\$40 million), First Nations Clean Energy Business Fund (\$7.7 million), British Columbia Indigenous Clean Energy Initiative (\$3 million), and the Fraser Basin Council's First Nations Home EnergySave program, among several other provincial programs and utility demand-side management (DSM) incentives.

Energy efficiency rebates and incentives managed by the government have recently been strengthened and are delivered by a 'single window' agency, EfficiencyBC.<sup>7</sup> These supporting programs are regarded as robust and well-developed compared to many other jurisdictions.<sup>8</sup> B.C.'s non-efficiency incentives could benefit from further development. Currently a tax exemption for renewable energy products and a clean fuel switching incentive for heating are the best examples of residential programs that encourage clean energy. A clean energy and energy efficiency program specific to remote communities is currently in development.

The B.C. Government operates under several guiding documents and principles for working with Indigenous communities and furthering goals of reconciliation.<sup>9</sup> The majority of Indigenous territory in the province is unceded, in contrast to territory covered by historic treaties. This has led to a number of recent judicial victories and modern treaties that have shaped and impacted First Nations communities' relationship with the provincial government. Revenue sharing agreements with the government have been made under the First Nations Clean Energy Business Fund, for income realized from water or land rentals in First Nations traditional territories and treaty areas.<sup>10</sup> B.C. has also signalled an intention to adopt UNDRIP through legislation which would make it the first jurisdiction in Canada to enshrine UNDRIP into law.<sup>11</sup> However, major tensions still exist between the provincial government and a number of First



Nations, particularly around the impact of major infrastructure projects on Indigenous rights and title.

## Utility and regulatory policy

The majority of B.C.'s remote communities are served with electricity by the Crown utility, BC Hydro, which has shifted over the past 10-15 years from owning all of its generation, transmission and distribution to allowing more generation from IPPs.

Legislation such as the 2010 Clean Energy Act expanded BC Hydro's already active IPP policies to mandate that all new electricity generation come from independent producers. As a result, several partnerships between Indigenous communities and private developers have emerged in the last decade.

The history of IPP development in B.C. has not been without controversy. There has been some criticism in the province around certain project partnerships between private developers and First Nations that are perceived by First Nations as inequitable. There is also political sensitivity in the province around the rate impacts of IPP projects with relatively high PPA rates causing upward pressure on electricity rates throughout B.C.<sup>12</sup>

Recently, grid-tied IPP projects have been suspended pending a review,<sup>13</sup> but BC Hydro will remain open to new projects and partnerships in remote communities as part of the mandate of the CleanBC plan. Several remote communities, however, remain frustrated by a lack of information disclosure on the part of BC Hydro, which does not share load profiles, historical demand data and systems information as openly as some other utilities.<sup>14</sup> Details of the utility's strategy for meeting the goals of the CleanBC Remote Community Clean Energy Strategy have yet to be announced.<sup>15</sup>

More work is required in reflecting the value of clean power beyond the marginal cost of diesel in the PPA rates offered to community-led projects. To date, most remote community projects have been offered rates equivalent to the marginal cost of diesel, with a "capacity payment" adder for avoided maintenance costs on the diesel system in some cases.<sup>16</sup> Because PPA rates (and IPP contracts in general) in B.C. are typically confidential, it is not clear if any remote community clean energy projects in the province have received a rate that approaches the actual avoided cost of diesel energy displaced.<sup>17</sup>

The provincial government has recently directed the BC Utilities Commission to undertake an open inquiry process<sup>18</sup> on the regulation of Indigenous utilities in B.C. This could potentially open new opportunities for Indigenous communities to pursue








energy independence and economic development goals by forming their own utilities, though several First Nations in B.C. feel that such activity should not be regulated by the Commission.

## Community project experience and recent project news



Despite some ongoing challenges, B.C. is a leader in offering a supportive policy environment and funding opportunities to remote communities wishing to transition off diesel, and the province has seen dozens of clean energy and energy efficiency projects developed over the years. For example, Hesquiaht First Nation, a remote Indigenous community on the west coast of Vancouver Island, is developing a 225 kW hydro project that will displace over 75% of diesel use in the community. This \$13.7 million project was partly made possible by a revenue-sharing agreement under the B.C. First Nations Clean Energy Business Fund and is expected to be completed in 2019.<sup>19</sup>

Many other examples of community-led clean energy projects and successful partnerships exist in B.C., including projects that are 100% owned by First Nations such as Xeni Gewt'in, Taku River Tlingit and Kitasoo/Xai'xais. Small-scale hydro projects have dominated in the past, with new solar PV projects with battery storage recently advancing. For some communities, these projects have been partly driven by a desire for greater energy independence, in parallel with the shift of many First Nations in B.C. toward self-government and modern treaty agreements with the province.<sup>20</sup>

## Alberta

Category	AB
Government direction	
Long-term strategy and implementation support for reducing diesel in remote communities	
Incentives and/or financing for clean energy and energy efficiency	
Government commitments to reconciliation and better relationships with Indigenous communities	
Utility and regulatory policy	
Transparent and well-supported power procurement policies	
Clean energy valued at the avoided cost of diesel or higher	
Community project experience	
Existing community-owned or championed projects	
Community-led projects in development	

Legend	 Significant policy in place	 Some policy in place	 Little or no policy in place	 Unknown
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# of communities	% of total remote population	% of remote diesel consumption
7		

### Government direction

Between 2015 and 2019, Alberta made impressive strides in enabling remote community diesel reduction projects, including project support and plans to connect some communities to the grid.<sup>21</sup> Transitioning Alberta’s small number of remote Indigenous communities off diesel was an explicit goal in the province’s Climate Leadership Plan and supporting programs. However, there have been no government targets set in Alberta to date for the transition of remote communities away from diesel energy.<sup>22</sup> Future support for clean energy in the province is now threatened by rollbacks of

climate policies and supporting programs under the direction of the new provincial government elected in May 2019.<sup>23</sup>

Under the previous provincial government, a number of supporting programs were established that specifically enabled Indigenous community leadership in clean energy projects, including seven programs funded under the climate plan. These Indigenous Climate Leadership Initiative funding programs covered climate planning, energy literacy, community energy planning, retrofits, green energy development, green employment and solar incentives.<sup>24</sup> The province also offered municipal solar incentives and various demand-side programs under Energy Efficiency Alberta.

These programs, while innovative and successful, are now at risk of being rolled back. All seven programs under Alberta's Indigenous Climate Leadership Initiative are currently closed to new applicants, and the Climate Leadership Act, which enabled funding for these programs, has recently been repealed.<sup>25</sup> The government has indicated that it will no longer subsidize solar projects.<sup>26</sup> The future of Energy Efficiency Alberta and its associated rebates and incentives is also uncertain, with all programs currently subject to a review.<sup>27</sup> Before the establishment of Energy Efficiency Alberta, the province was the only jurisdiction in Canada without energy efficiency programs; it could become so once again.<sup>28,29</sup>

As of July 2019, the Government of Alberta's website stated support for implementing UNDRIP, but did not have any planned legislation to formally adopt the framework.<sup>30</sup> Implementing UNDRIP through government policies and practices was a priority of the previous government.<sup>31</sup> The newly elected government has yet to make any public statements on reconciliation and Indigenous relations that provide continuity to this commitment, other than a stated intention to create a Crown corporation that would support Indigenous investment in fossil fuel infrastructure and development projects.<sup>32</sup>

## Utility and regulatory policy

Alberta's electricity market is deregulated, meaning that the generation of electricity in the province is competitive and purchase is based on lowest cost. As a result, utilities do not offer IPP policies in the traditional sense; rather, every generation owner is treated as an independent producer. However, remote communities have been able to negotiate agreements directly with the utility that provides service in their area (all remote communities in Alberta are served by ATCO Electric).

Rate negotiations for power projects through PPAs have recently begun to better reflect the economic value of clean energy by considering the avoided cost of diesel, including

operation and maintenance savings. However, Alberta's Small Scale Generation Regulation (SSGR), which came into force in January 2019, has created a regulatory roadblock to these PPAs. While the SSGR will have the positive effect of making it easier for small-scale clean energy producers to connect to the grid and sell the energy they produce, it explicitly ties the price for that energy to the hourly pool price. Negotiation of a PPA that reflects avoided cost appears no longer possible under the SSGR.<sup>35</sup> The applicability of this regulation to remote communities should be considered as part of a larger inquiry currently underway by the Alberta Utilities Commission on the way electricity distribution is regulated in the province.<sup>34</sup>

## Community project experience and recent project news

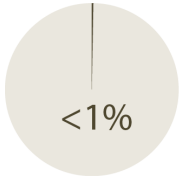
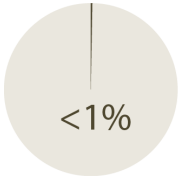
Canada's largest remote solar PV project is being developed in Alberta (see below), supported by a large investment from the provincial government and a favourable policy environment in early 2019. Three Nations Energy, a collaboration among Fort Chipewyan's Métis Local 125, Athabasca Chipewyan First Nation and Mikisew Cree First Nation, is building Canada's largest remote solar project in collaboration with the local utility, ATCO Electric. The project received \$3.3 million in support from the previous government in Alberta, through the Indigenous Climate Leadership Program. When completed, it will consist of 2.6 MW of solar PV and 1.5 MWh of battery storage, enough to displace 25% of diesel used in the community.<sup>35</sup>

The future for community-led clean energy projects in the province is now uncertain, however, as many enabling policies and programs are at risk of being rolled back or cancelled entirely. Continued leadership on supporting remote communities' transition to clean energy is acutely needed in the province.

## Saskatchewan

Category	SK
Government direction	
Long-term strategy and implementation support for reducing diesel in remote communities	●
Incentives and/or financing for clean energy and energy efficiency	●
Government commitments to reconciliation and better relationships with Indigenous communities	●
Utility and regulatory policy	
Transparent and well-supported power procurement policies	●
Clean energy valued at the avoided cost of diesel or higher	✗
Community project experience	
Existing community-owned or championed projects	✗
Community-led projects in development	✗

Legend ● Significant policy in place ● Some policy in place ● Little or no policy in place ○ Unknown

# of communities	% of total remote population	% of remote diesel consumption
1	 <1%	 <1%

### Government direction

Saskatchewan has only one remote Indigenous community, and there are thus limited examples of policies and programs that directly support diesel reduction in this community. Remote communities are not directly referenced in the provincial climate plan. Broader energy and climate goals in the province include a target of 50% clean electricity system-wide by 2030, though this is not reinforced by strong climate targets or policies.<sup>36</sup>

There are also relatively few government or utility programs supporting clean energy and energy efficiency for residential and community customers, with most programs being directed toward mid- and large-size commercial customers. An existing loan program for purchasing energy efficient equipment and products is geared toward natural gas appliances rather than lower-carbon alternatives.<sup>37</sup> A solar energy rebate program exists, targeted at customers accessing SaskPower's net metering program.<sup>38</sup>

In 2015, the Government of Saskatchewan expressed its support for implementing the TRC Calls to Action, but has not endorsed UNDRIP or introduced any legislation supporting either framework.<sup>39</sup> Saskatchewan's Office of the Treaty Commissioner, established by the Federation of Sovereign Indigenous Nations and the Government of Canada, is one of the few government-associated organizations in the province with an explicit mandate to advance reconciliation in the province, although various interministerial strategies in the province aspire to align with the Calls to Action.<sup>40,41</sup>

## Utility and regulatory policy

There is no clear direction from the Crown electricity utility, SaskPower, on transitioning Saskatchewan's single remote community off diesel; however, there are some examples of Indigenous-owned IPP projects in grid-tied communities including a wind, solar and battery hybrid energy project.<sup>42</sup> SaskPower also has an Aboriginal Procurement Policy that encourages it to consider Indigenous business entities when procuring for power generation and transmission.<sup>43</sup>

Saskatchewan's IPP policy, the Power Generation Partner Program,<sup>44</sup> could theoretically apply to remote communities, although this is not directly referenced in the policy.<sup>45</sup> Further, this policy has a relatively low cap on individual system size (e.g. 1 MW for solar) as well as total capacity accepted into the system, and it does not offer PPA rates that approach even the marginal cost of diesel, limiting its application to remote areas.

## Community project experience and recent project news

No remote community clean energy projects have been completed to date in Saskatchewan. With political and financial support from the provincial government, a remote community clean energy project could likely be developed under existing policies and programs, though a competitive PPA rate would remain a critical factor for any project to succeed.

Saskatchewan's only remote Indigenous community, Kinoosao, is the northernmost community within the Peter Ballantyne Cree Nation, and has about 60 residents. It was

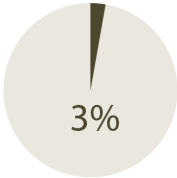



recently selected as one of fifteen communities across Canada to participate in the Indigenous Off-Diesel Initiative — paving the way for its transition to clean energy.<sup>46</sup>

## Manitoba

Category	MB
Government direction	
Long-term strategy and implementation support for reducing diesel in remote communities	●
Incentives and/or financing for clean energy and energy efficiency	●
Government commitments to reconciliation and better relationships with Indigenous communities	●
Utility and regulatory policy	
Transparent and well-supported power procurement policies	●
Clean energy valued at the avoided cost of diesel or higher	✗
Community project experience	
Existing community-owned or championed projects	✗
Community-led projects in development	✓

Legend ● Significant policy in place ● Some policy in place ● Little or no policy in place ○ Unknown

# of communities	% of total remote population	% of remote diesel consumption
4	 <p>3%</p>	 <p>2%</p>

### Government direction

Many of Manitoba’s remote communities have been connected to the provincial electricity grid over the last 30 years. Today, only four communities are still reliant on diesel for electricity, though many other communities still rely on diesel fuel for heating. Transitioning remote Indigenous communities off diesel is mentioned as a goal in Manitoba’s 2012 energy strategy and 2017 climate plan, but no clear implementation strategy, target or policy has yet been introduced to support this objective.<sup>47,48</sup>

Diesel reduction projects in Manitoba could leverage some existing programs, in particular the Indigenous Energy Efficiency Program which works with band housing managers to improve energy efficiency in homes. Manitoba's Pay-As-You-Save (PAYS) financing<sup>49</sup>, tax credits and home retrofit loans are examples of innovative DSM programs, but the province has no substantial programs that offer funding or support for clean energy projects. Manitoba had a pilot solar rebate program, but this has been recently discontinued.<sup>50</sup> Efficiency Manitoba is a relatively new Crown corporation launched in 2019, and is responsible for delivering lighting rebates in the province. The agency may deliver more programs in the future; however, its overall energy demand reduction goals are currently quite modest.<sup>51</sup>

Manitoba passed the Path to Reconciliation Act in 2016 under a previous government, legislating support for both UNDRIP and the TRC Calls to Action. However, the Act does not require that laws and regulations be harmonized with UNDRIP.<sup>52</sup> The Path to Reconciliation Act is supported by a reconciliation strategy at the provincial level, but the current government has been criticized for stepping back from commitments previously made to Indigenous groups.<sup>53,54</sup>

## Utility and regulatory policy

Manitoba Hydro does allow customers to sell power to the grid as a type of IPP, but there is no well-supported process for doing so and the size of such projects are limited by the utility. Manitoba Hydro issues credits for excess energy sold to the grid at an extremely low rate — less than the on-grid rate and well below the marginal cost of diesel energy — making the business case extremely challenging for an independent power producer. Acknowledging that such a low rate makes clean energy projects infeasible in remote communities, Manitoba Hydro has been willing to negotiate power purchase agreements on an individual basis for the first community-led projects, but an established process that can be transferred across communities does not yet exist.<sup>55,56</sup>

Manitoba Hydro's vertically-integrated approach of controlling all electricity generation, transmission, distribution and sales in the province, combined with a relatively low number of remote communities, has not created a particularly favourable policy and program environment for transitioning these communities off diesel. Encouraging community-scale projects in remote communities will require Manitoba Hydro to offer PPA rates that meet (at a minimum) or exceed the marginal cost of diesel, through negotiated agreements or a formalized IPP policy.

## Community project experience and recent project news

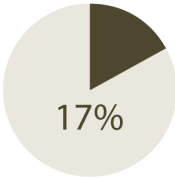
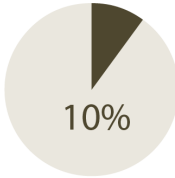
Despite limited procurement opportunities for selling clean power to the utility, remote communities have taken the lead to initiate plans for local clean energy projects that displace the use of diesel, leveraging funding from different federal programs. This momentum could spur the introduction of more policy and program support by government and the utility. There is clear appetite and direction within these communities to transition to clean energy, and at least one example of a community-led project in development.

The Northlands Dënesųłiné First Nation on Lac Brochet is finishing construction of a combined solar, geothermal and bioenergy heating project for the community of around 850 people. When complete, it will displace up to 20% of the diesel fuel used to generate electricity, and 30% of the fuel used for heating. Despite being located in a remote community, the 282 kW solar farm is one of the largest in the province.<sup>57</sup> Two other communities (Barren Lands First Nation on Reindeer Lake, and Sayisi Dene First Nation on Tadoule Lake) are also establishing long-term plans for moving off diesel.<sup>58</sup>

## Ontario

Category	ON
Government direction	
Long-term strategy and implementation support for reducing diesel in remote communities	●
Incentives and/or financing for clean energy and energy efficiency	●
Government commitments to reconciliation and better relationships with Indigenous communities	●
Utility and regulatory policy	
Transparent and well-supported power procurement policies	●
Clean energy valued at the avoided cost of diesel or higher	✘
Community project experience	
Existing community-owned or championed projects	✓
Community-led projects in development	✓

Legend ● Significant policy in place ● Some policy in place ● Little or no policy in place ○ Unknown

# of communities	% of total remote population	% of remote diesel consumption
25	 17%	 10%

### Government direction

Ontario has a large number of remote Indigenous communities, as well as several leading examples of community-led clean energy projects. The most significant initiative impacting Ontario’s remote communities is the Wataynikaneyap Transmission project, which aims to connect 17 of Ontario’s 25 remote Indigenous communities to the provincial electricity grid. This complex project is planned to be completed in two phases, and still requires a number of regulatory approvals to proceed fully.<sup>59</sup> The only mention of remote Indigenous communities’ energy transition in the province’s most recent climate strategy references these pre-existing plans to connect communities to

the provincial grid. This direction was initiated under the previous government and identified as a priority in the province's 2013 Long Term Energy Plan.<sup>60</sup> Under the current government, support for the Wataynikaneyap project has continued, but no clear strategy or targets have been developed to ensure a complete transition for all of Ontario's remote communities.<sup>61</sup>

Energy efficiency and clean energy programs set up under the previous government were beneficial to community proponents and contributed to the development of projects with up to 100% Indigenous ownership, primarily on-grid projects.<sup>62</sup> However, the cancellation of the Green Ontario Fund in 2018 with its associated energy efficiency and solar rebates is a step backwards for encouraging clean energy in the province.<sup>63</sup> This is compounded by the withdrawal of support for clean energy<sup>64</sup> and energy efficiency<sup>65</sup> incentives from the provincial government in 2019.

Despite these setbacks, remote communities in Ontario can still access four supporting programs administered by the Independent Electricity System Operator (IESO), which provide funding for community energy champions, community energy planning, education and capacity building, and project support for Indigenous communities.<sup>66</sup>

In 2016, the Ontario government released a reconciliation strategy for the province, along with \$250 million over three years in funding for associated programs.<sup>67</sup> However, this document has yet to be endorsed or updated by the current government, and the province has recently reduced its Indigenous Affairs budget,<sup>68</sup> cancelled planned curriculum updates based on the TRC Calls to Action,<sup>69</sup> and eliminated the Indigenous Culture Fund.<sup>70</sup> Ontario has no legislation or recent public statements endorsing the adoption of UNDRIP or TRC Calls to Action; however, a private member's bill, Bill 76, recently introduced to the legislature would require Ontario's laws to be brought into harmony with UNDRIP (similar to the federal Bill C-262).<sup>71</sup>

## Utility and regulatory policy

The main utility responsible for providing electricity service to remote communities in Ontario, Hydro One Remotes, has a separate rate class and an established IPP policy specific to remote communities, the Renewable Energy Innovation Diesel Emission Reduction (REINDEER) program. This program offers a clear process for project proponents in selling power to the utility, and establishes PPA rates for each remote community based on the marginal cost of diesel unique to each community (due to different transportation costs).<sup>72</sup>

Hydro One also operates under a First Nations and Métis Relations Strategy,<sup>73</sup> which has goals of improving communication and partnership opportunities with Indigenous communities. As part of this strategy, Indigenous-led IPP projects are typically given preference when considered by the utility. While a critical policy for driving community projects, REINDEER has not offered PPA rates that exceed the marginal cost of diesel energy. Higher rates that take into account savings on the diesel system are needed to improve the business case for remote clean energy projects in Ontario.

Recently, the Ontario Energy Board has taken the innovative step of allowing a co-operative approach between Hydro One and the Anwaatin group of First Nations communities, allowing distributed energy resources projects that improve reliability and may reduce diesel consumption to be listed as capital expenditures in the utility's future rate applications.<sup>74</sup> This represents an opportunity for the utility to shift its approach away from focusing on the cost of service alone, which favours the incumbent diesel infrastructure, toward more reliable and resilient energy systems including the integration of battery energy storage.

## Community project experience and recent project news

Ontario's remote communities are currently fairly well supported by utility and regulatory policies and programs when it comes to diesel reduction project opportunities. As in British Columbia, a number of communities in Ontario operate as independent power authorities outside the service area of Hydro One Remote Communities. Many of these First Nations communities have expressed a desire to remain independent and operate their own community-based utilities.<sup>75</sup>

Reconciliation and benefit agreements that attempt to address the impact of historical large hydro projects<sup>76</sup> are, in some cases, providing an avenue for communities to develop locally owned and controlled clean energy projects.<sup>77</sup> The northwestern Ontario community of Kiashke Zaaging Anishinaabek (Gull Bay First Nation) is finishing construction on a solar PV and battery storage microgrid in partnership with Ontario Power Generation and Hydro One Remote Communities. The 360 kW project will displace around 25% of diesel used for electricity generation and will be 100% owned and operated by the community.<sup>78</sup>

In late 2018, the Pikangikum First Nation was connected to the provincial grid — the first community to eliminate diesel dependency as part of the Wataynikaneyap Power project.<sup>79</sup> However, a lack of clear support for clean energy from the current provincial government and some uncertainty around the timing and scope of connecting

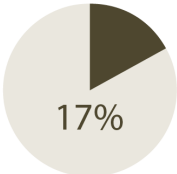
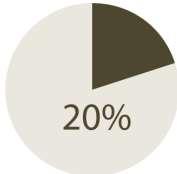


communities to Wataynikaneyap Power leaves more work to be done in supporting remote Indigenous communities' diesel transition in Ontario.

## Quebec

Category	QC
Government direction	
Long-term strategy and implementation support for reducing diesel in remote communities	●
Incentives and/or financing for clean energy and energy efficiency	●
Government commitments to reconciliation and better relationships with Indigenous communities	●
Utility and regulatory policy	
Transparent and well-supported power procurement policies	●
Clean energy valued at the avoided cost of diesel or higher	✗
Community project experience	
Existing community-owned or championed projects	✗
Community-led projects in development	✓

Legend ● Significant policy in place ● Some policy in place ● Little or no policy in place ○ Unknown

# of communities	% of total remote population	% of remote diesel consumption
22	 17%	 20%

### Government direction

Quebec has a relatively large number of remote Indigenous communities, and vast clean energy resources at its disposal, including small hydro and biomass resources that have the potential to fully displace diesel in some communities. The provincial government committed to providing funding for clean energy projects in remote communities in its 2013-2020 Climate Plan,<sup>80</sup> and has an overall fossil fuel reduction target of 40% by 2030, but it does not yet have a diesel reduction target specific to remote communities in place.

Though clean electricity projects in Quebec are hampered by low PPA rates (reflective of very low electricity rates overall in the province), solar PV installation tax credits are in place and funding exists for residual biomass projects. A variety of funding is available for home energy efficiency and fuel switching through Transition Énergétique Québec, which includes four program streams aimed at energy retrofits, new energy efficiency construction, fuel switching to clean electricity, and low-income households.<sup>81</sup>

As a result of the James Bay and Northern Quebec Agreement of 1975, which seeks to compensate Indigenous communities for the impacts of large hydro projects, the government of Quebec has historically been willing to partner with Indigenous communities on clean energy developments.<sup>82</sup> The Plan Nord (Northern Plan) Fund also commits \$350 million over five years toward a variety of development initiatives for northern Quebec, including an intention to support remote communities' clean energy transition. However, the plan does not mention prioritizing projects that are community-driven or owned.<sup>83</sup>

The Quebec government has developed an action plan for 2017-2022 outlining its strategy for reconciliation and Indigenous “social and cultural development.”<sup>84</sup> Quebec signalled an intention to adopt UNDRIP in 2018, but has yet to introduce supporting legislation.<sup>85</sup>

## Utility and regulatory policy

The Crown electric utility, Hydro-Québec, included an intention to eventually transition all remote communities off diesel in its 2016-2020 strategic plan.<sup>86</sup> To that end, the utility planned to solicit proposals for diesel reduction projects in several remote communities by 2020<sup>87</sup>, but has since shifted its strategy to prioritize projects that are led by the community rather than the utility or external developers. Direct negotiations are now taking place between the utility, communities, and their partner organizations. Hydro-Québec's proposal process is currently structured to allow only projects that reduce the overall cost of service to the communities, but it is not clear whether this criterion considers the avoided costs of diesel energy reduction including avoided operation, maintenance and capital costs.<sup>88</sup>

From 2009 to 2013, Quebec operated an IPP program supporting small hydro and wind projects for local and Indigenous groups. A handful of grid-tied projects were developed under this policy, which has since been discontinued and replaced with the above-mentioned negotiation process for acquiring power.<sup>89,90</sup> Hydro-Québec is open to community owned and led clean energy generation, and also provides historical energy consumption data to project proponents.<sup>91</sup> These are key enabling practices which, if

combined with PPA rates that reflect the avoided cost of diesel ,would make Hydro-Québec one of the leading utilities in the country for furthering community goals of energy independence and self-determination.<sup>92</sup>

## Community project experience and recent project news

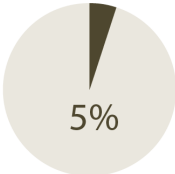
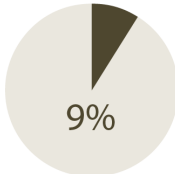
Quebec has a large number of remote Indigenous communities, many of which are located in the Nunavik Inuit region. The first community-led clean energy project at scale in Quebec is currently in development: a hydro project planned for the community of Inukjuak that has been championed by the community for a number of years.<sup>93</sup>

Innavik Hydro is planning a 7.5MW installation that will be owned 50/50 between the local Pituvik Landholding Corporation and the project developer Innergex. The project would displace nearly all the diesel used by the community; a long-term power purchase agreement (PPA) with Hydro-Québec was recently signed for the project.<sup>94</sup> There are other clean energy projects in various stages of development in the province's remote communities.

## Newfoundland and Labrador

Category	NL
Government direction	
Long-term strategy and implementation support for reducing diesel in remote communities	●
Incentives and/or financing for clean energy and energy efficiency	●
Government commitments to reconciliation and better relationships with Indigenous communities	●
Utility and regulatory policy	
Transparent and well-supported power procurement policies	●
Clean energy valued at the avoided cost of diesel or higher	✗
Community project experience	
Existing community-owned or championed projects	✗
Community-led projects in development	✓

Legend ● Significant policy in place ● Some policy in place ● Little or no policy in place ○ Unknown

# of communities	% of total remote population	% of remote diesel consumption
14	 <p>5%</p>	 <p>9%</p>

### Government direction

Newfoundland and Labrador is the only jurisdiction in Atlantic Canada with remote communities that are not connected to the North American grid. Many of the province’s remote Indigenous communities are located along the coast of Labrador, in the Nunatsiavut Inuit region.<sup>95</sup>

Exploring diesel reduction opportunities in remote communities was identified as a planned action in the province’s 2016 climate plan, but no substantial progress was made until very recently.<sup>96,97</sup> The Indigenous self-government of Nunatsiavut also

identified funding for solar and other clean energy projects as part of its 2016 Energy Security Plan for the region.<sup>98</sup> Despite initially slow progress by the provincial government, there is now renewed momentum to transition remote communities in Labrador and Nunatsiavut to clean energy, with a request for expressions of interest (EOIs) for projects in 14 remote communities in southern Labrador (several of which are Indigenous).<sup>99</sup> It remains to be seen how the government will approach procurement for these communities, and whether it will prioritize proposals from community-led projects.<sup>100,101</sup>

Energy efficiency rebates and loans are available to residential customers in Newfoundland and Labrador through the TakeCHARGE program, administered by the province's two major utilities. A biogas-to-electricity incentive also exists in the province, but no other clean energy rebate or incentive programs are currently in place.<sup>102</sup>

The Newfoundland and Labrador Government announced an intention to implement the TRC Calls to Action in its 2018 speech from the throne,<sup>103</sup> but has not adopted this or another reconciliation framework into legislation. The provincial government's 2016 growth and sustainability strategy briefly stated an intention to advance land claims and self-government agreements in the province.<sup>104</sup>

## Utility and regulatory policy

Two utilities serve Newfoundland and Labrador, with remote communities served by the Crown corporation NL Hydro. These utilities do not have active IPP policies that communities can access, though two historical wind projects developed by IPPs do exist in the province, including a wind-hydrogen microgrid demonstration project that is no longer fully operational.<sup>105</sup> The lack of a locally focused procurement process for clean power in Newfoundland and Labrador's remote communities makes conditions more challenging for community-led projects. Pressure to halt further increases to electricity rates as a result of cost overruns from large hydro projects further compounds this problem.<sup>106</sup>

Recently, NL Hydro has partnered with the provincial government on its EOI process for clean energy projects in communities on the coast of Newfoundland and southern Labrador. This is a positive development and opens up opportunities for the first clean energy projects at scale in the province's remote communities. However, the process does not appear to prioritize community-led projects and favours an industry-led approach. How the utility will approach procurement and contracting for projects developed as a result of this EOI process remains to be seen.

There remains no clear policy or process for the five Inuit and Innu communities in the northern region of Nunatsiavut to sell power to the utility, and this issue is currently being considered separately by the Nunatsiavut Government. However, this Inuit government has recently championed a number of projects designed to reduce reliance on diesel including the installation of high-efficiency wood stoves.<sup>107, 108</sup>

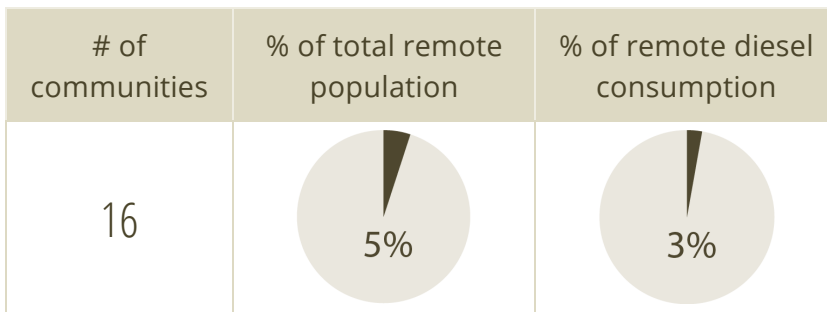
## Community project experience and recent project news

While the Nunatsiavut region is an innovative example of self-government and modern treaties between the provincial government and Nunatsiavummiut, progress to date in enabling these communities to transition away from diesel reliance has so far been limited to renewable heating initiatives.<sup>109</sup> However, two energy champions from this region are currently participating in the federal Indigenous Off-Diesel Initiative, representing the communities of Makkovik and St. Lewis, supported by funding for capacity building and project implementation in these communities. Newfoundland and Labrador is a province that is poised to take a decisive leap if it can support the current momentum and interest in diesel reduction initiatives with government policies and programs that enable community-led projects.

# Yukon

Category	YT
Government direction	
Long-term strategy and implementation support for reducing diesel in remote communities	●
Incentives and/or financing for clean energy and energy efficiency	●
Government commitments to reconciliation and better relationships with Indigenous communities	●
Utility and regulatory policy	
Transparent and well-supported power procurement policies	●
Clean energy valued at the avoided cost of diesel or higher	✓
Community project experience	
Existing community-owned or championed projects	✓
Community-led projects in development	✓

Legend ● Significant policy in place ● Some policy in place ● Little or no policy in place ○ Unknown



## Government direction

The Yukon Territory has enacted a number of policies and programs supporting remote community diesel reduction, and has several community-led projects in development. The territorial government set in 2012 a target to reduce emissions from diesel generation by 20% by 2020, and recently met this target.<sup>110</sup> The territory is in the process of developing an updated climate plan, which would benefit from the inclusion of an ambitious new diesel reduction target and renewed funding for transitioning communities off diesel, particularly those that are not connected to the Yukon grid (which is not connected to the North American grid and so still considered remote).



The Yukon government has also introduced a Community Green Energy Initiative to increase the uptake of clean energy and energy efficiency through project funding and incentive programs. The Initiative specifically emphasizes government-to-government collaboration with Indigenous communities, flexibility in funding arrangements, and community-driven initiatives.<sup>111</sup>

Energy efficiency and clean energy is supported on the residential scale by rebate and incentive programs provided by the government under Good Energy Yukon. These programs are well-developed considering the small population and remoteness of the territory.<sup>112</sup> While the Yukon's government-administered rebate and incentive programs are beneficial, the Yukon Utilities Board has made the surprising move of not allowing utilities to offer their own demand-side management programs. This may make it more difficult for utilities to recover costs and keep rates low as customers reduce their energy consumption.<sup>113</sup> Such decisions highlight the need for a review of utility regulation in the territory, particularly in light of pending investments in fossil fuel generation that could potentially be reduced or avoided through more comprehensive demand-side management initiatives or clean energy.<sup>114</sup>

The Yukon Government endorsed Canada's (then conditional) position on UNDRIP in 2014. However, Yukon is notable for having advanced reconciliation with Indigenous communities through the implementation of Yukon First Nation Final and Self-Government Agreements, among other projects and initiatives. Provisions contained within these agreements give Yukon First Nations the opportunity to lead and have ownership over initiatives that advance self-government, economic development, and energy independence.<sup>115</sup>

The impact that these modern treaties have had on the ability of Indigenous communities to advance their projects should not be underestimated. More than 50% of Canada's self-governing First Nations are located in the Yukon, with Final Agreements or modern treaties covering 11 of 14 First Nations in the territory.<sup>116,117</sup> This fact, combined with many years of effort by champions in communities and the territorial government alike, has led to one of the most supportive environments in the country for clean energy projects in remote Indigenous communities.

## Utility and regulatory policy

The Yukon Energy Branch, rather than an individual utility, supports community-led projects through a well-designed IPP policy and an unsolicited proposal process specific to remote communities. Yukon's IPP policy sets a target of at least 50% of projects having an Indigenous ownership component.<sup>118</sup>








Most electricity customers in the Yukon are served by the Crown corporation Yukon Energy, but remote Indigenous communities not covered by the territorial power grid in the Yukon are served by a private utility, ATCO Electric. The utility and remote community proponents in the territory have negotiated PPA rates that are 10-20% higher<sup>119</sup> than the marginal cost of diesel energy, greatly improving the business case for clean energy in these remote communities. This makes the Yukon the only jurisdiction in Canada that is consistently able to offer rates approaching the avoided cost of diesel energy to clean power proponents.

## Community project experience and recent project news

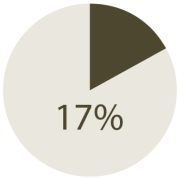
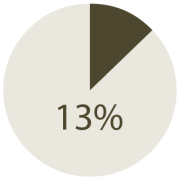
Innovative community-led projects in the Yukon include a large solar PV project with battery storage in Old Crow (Vuntut Gwitchin First Nation) and a planned wind energy project in Burwash Landing (Kluane First Nation). Both these high-penetration projects are fully Indigenous-owned and will enable diesel generators in the community to be turned off during certain times of the year.

Vuntut Gwitchin First Nation's \$6.5 million solar PV and battery storage microgrid project in Old Crow has recently been completed and is expected to displace around 25% of diesel use in the community. The community will own and operate 940 kW of solar panels, while the local utility, ATCO Electric, will be responsible for operating the battery storage system and overall microgrid.<sup>120</sup>

## Northwest Territories

Category	NT
Government direction	
Long-term strategy and implementation support for reducing diesel in remote communities	
Incentives and/or financing for clean energy and energy efficiency	
Government commitments to reconciliation and better relationships with Indigenous communities	
Utility and regulatory policy	
Transparent and well-supported power procurement policies	
Clean energy valued at the avoided cost of diesel or higher	
Community project experience	
Existing community-owned or championed projects	
Community-led projects in development	

Legend  Significant policy in place  Some policy in place  Little or no policy in place  Unknown

# of communities	% of total remote population	% of remote diesel consumption
31	 17%	 13%

### Government direction

The Northwest Territories has a large number of remote Indigenous communities, most of which are still predominantly reliant on diesel fuel for power and heating (along with significant use of wood biomass). As part of the formidable task of transitioning all of these communities to clean energy, the Northwest Territories’ 2030 Energy Strategy established a diesel reduction objective for remote communities of 25% by 2030. The territory also has a more ambitious target for meeting 40% of heating from renewable sources in the same timeframe.<sup>121,122</sup>

However, as one former minister responsible for electricity in the Northwest Territories commented, pursuing partnerships with remote communities to reduce diesel consumption has not been a clear priority of the territorial government in recent years. This is demonstrated by a combination of low PPA rates and relatively strict limits on the amount of intermittent renewable energy allowed on remote microgrids.<sup>123</sup>

The 2030 Energy Strategy outlines a Renewable Electricity Participation Model for remote communities, which includes an intention to collaborate on community-driven mid- and larger-scale clean energy opportunities. However, given the current 20% solar energy capacity limit in remote communities, and a lack of a clear procurement process from the Crown utility, more clarity is needed on how the territory plans to partner with communities on diesel reduction initiatives.<sup>124</sup>

There are a number of subsidy programs in the Northwest Territories for both energy efficiency (the Energy Efficiency Incentive Program) and clean energy (the Residential Renewable Energy Fund) at the residential and community government level. These programs are administered by the Arctic Energy Alliance and are relatively comprehensive in scope.<sup>125</sup> Communities can also access funding for diesel reduction initiatives through a \$1.8 million GHG Grant Program.<sup>126</sup>

The Northwest Territories was, in 2008, the first jurisdiction in Canada to publicly state support for UNDRIP; a framework for engaging with Indigenous communities was introduced in 2012. In 2013, the Northwest Territories underwent devolution, giving the territorial government more control over public lands and resource development.<sup>127</sup> Since this time, implementation of UNDRIP and reconciliation has not been adopted into legislation or in recent changes to natural resource and environmental laws.<sup>128</sup> Current direction to develop clean energy in remote communities through utility-driven projects with some community engagement, rather than through a community-driven procurement process is reflective of a need to re-prioritize relationships with Indigenous communities in the territory.

## Utility and regulatory policy

The Northwest Territories is a critical jurisdiction in Canada due to the number of remote Indigenous communities and the current lack of clear market opportunities these communities can access when pursuing clean energy initiatives. There is no documented IPP policy in place in the Northwest Territories, and IPP project proposals are subject to a negotiation with the government and utility. Electricity infrastructure is mostly controlled by the Crown utility, Northwest Territories Power Corporation

(NTPC), with some communities being served by Northland Utilities, a subsidiary of ATCO.<sup>129</sup>

Diesel reduction objectives in the territory are primarily being pursued through a net metering policy and projects led by NTPC, including a solar/diesel hybrid system in Colville Lake, a variable-speed generator pilot project in Aklavik, and a planned wind project in Inuvik, none of which are community-owned or led. Current policy laid out in the 2030 Energy Strategy states that IPP projects that receive a grant from the territorial government must benefit all communities in the thermal energy service area,<sup>130</sup> which limits the business case for community-driven projects and hence restricts their number.

A community-oriented IPP policy that offers competitive PPA rates and allows communities to own or control some generation assets would potentially open doors to developing more clean energy projects, but at least one community to date has been able to negotiate a one-off PPA with the utility. NTPC offers a rate for such projects that is approximately 5% greater than the marginal cost of diesel to account for avoided operation and maintenance costs, but based on experience in other jurisdictions such as Yukon, this likely does not approach the avoided costs of the diesel system.<sup>131</sup>

## Community project experience and recent project news

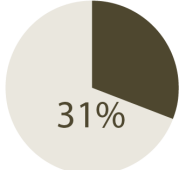
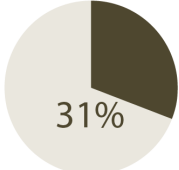
Communities have recently started pursuing diesel reduction opportunities and projects in the territory, such as the Lutsel K'e Dene First Nation, the first (and to date, only) independent solar power producer in the territory, with a project developed in 2015. The community of Tulita also has a solar power project in development.<sup>132</sup> Enabling greater involvement and opportunities for community-led projects will be critical for the territory to meet and exceed diesel reduction goals, and to accelerate the transition of communities off diesel.

In April of 2018, NTPC began a one-year trial of variable-speed diesel generator (VSG) technology in Aklavik. The 590 kW generator, combined with a 55 kW solar array, has been providing power to about 300 residents. Performance of the VSG appears to be positive with efficiencies gained but there has been no official release of the data to confirm this. With the trial period now coming to an end, there is the potential for more aging diesel generators to be replaced with VSGs, which allow for better integration of future clean energy projects.<sup>133</sup>

## Nunavut

Category	NU
Government direction	
Long-term strategy and implementation support for reducing diesel in remote communities	●
Incentives and/or financing for clean energy and energy efficiency	●
Government commitments to reconciliation and better relationships with Indigenous communities	●
Utility and regulatory policy	
Transparent and well-supported power procurement policies	○
Clean energy valued at the avoided cost of diesel or higher	✗
Community project experience	
Existing community-owned or championed projects	✗
Community-led projects in development	✓

Legend	● Significant policy in place	● Some policy in place	● Little or no policy in place	○ Unknown
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# of communities	% of total remote population	% of remote diesel consumption
25		

### Government direction

Nunavut’s most recent climate plan, released in 2011, does not address diesel reduction goals or targets, and there is not a clear strategy for transitioning Nunavut’s communities, which are all remote, off diesel.<sup>134</sup> The 2007 Ikummatiit Energy Strategy, from a previous government, mentions reducing diesel reliance but is outdated.<sup>135</sup> Efforts to date have mostly centered around replacing aging energy infrastructure and maintaining safe and reliable service.

Energy efficiency programs in the territory are limited to a home renovation incentive, and there is no direct financial support for clean energy deployment. Much of Nunavut's housing is public housing, managed by Nunavut Housing Corporation. This agency recently received federal funding for energy efficiency retrofits, and momentum needs to continue on this front to address needed repairs and high energy use in Nunavut's housing stock.<sup>136</sup>

Nunavut's current government has stated its support for Canada's adoption of UNDRIP at the federal level, but has not developed a territorial reconciliation strategy. However, Nunavut is a unique jurisdiction in many ways, including its majority Indigenous population, special governance agreements under the Nunavut Agreement, and a consensus-based legislature that typically involves more direct Indigenous input than other jurisdictions.<sup>137</sup>

## Utility and regulatory policy

Nunavut is facing severe energy security issues, with many of the diesel generators operated by Qulliq Energy Corporation (QEC) — the Crown utility that services all remote communities in the territory — reaching or past their operational lifespan. Nunavut's communities experience extremely high energy prices due to remoteness and the associated transportation costs of fuel. In response to this urgent need, QEC is replacing end-of-life equipment with assistance from the federal government, but this money is largely being allocated to newer, more efficient diesel generating equipment rather than to clean energy alternatives.<sup>138</sup>

The possibility of connecting several of Nunavut's southernmost communities to Manitoba's electricity grid has been discussed for several years.<sup>139</sup> While this presents a potential future opportunity for eliminating diesel reliance in some communities, the feasibility of such a project remains uncertain, and short-term action should be taken to support community-scale projects that directly benefit Nunavummiut.<sup>140</sup>

The Qulliq Energy Corporation Act has recently been amended to allow QEC to develop an IPP policy with the aim of diversifying the territory's energy supply and enabling third-party clean energy projects and partnerships. Details of the IPP policy have not yet been released, but QEC has stated that Inuit organizations will be given the first opportunity to own and operate clean energy projects in their communities, a positive step that should enable more community-led initiatives.

It is not yet clear whether the policy being developed will offer PPA rates that approach the full avoided cost of diesel.<sup>141</sup> QEC's definition of "avoided cost" when describing

their IPP policy refers to the incremental (marginal) cost of energy alone, differing from preferred terminology.<sup>142</sup> Avoided cost should include operation, maintenance and deferred capital costs that can be passed on to the IPP proponent. Competitive rates and additional support from the territorial government are needed to ensure that the first wave of community-scale diesel reduction projects in the territory are economically viable.<sup>143</sup>




## Community project experience and recent project news

All of Nunavut's 25 communities are remote and rely on diesel for heating and electricity. There are a few examples of small clean energy projects in Nunavut, but to date none of these have been led at the community level.<sup>144</sup> The development of a new IPP policy for Nunavut represents a significant opportunity for enabling community-led diesel reduction projects, but this policy must be designed in such a way that projects are economically feasible, and further program support and clear direction are needed from the Nunavut government.

Rankin Inlet is one of four communities in Nunavut (along with Iqaluit, Sanikiluaq and Arviat) that are currently measuring their wind resource potential with meteorological towers. In Rankin Inlet, the community has partnered with a company that seeks equity partnerships for Indigenous communities looking to develop clean energy projects. If successful, the 2 MW, \$12-million wind farm would be one of the first projects developed under QEC's new IPP policy.<sup>145</sup>



## Federal government

Category	CAN
Government direction	
Long-term strategy and implementation support for reducing diesel in remote communities	
Incentives and/or financing for clean energy and energy efficiency	
Government commitments to reconciliation and better relationships with Indigenous communities	

Legend	 Significant policy in place	 Some policy in place	 Little or no policy in place	 Unknown
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### Government direction

The federal government has expanded support for diesel reduction projects and capacity building in remote communities over the last few years, most notably through several new funding programs, including the Clean Energy for Rural and Remote Communities (CERRC) program (\$220 million over six years) and the Indigenous Off-Diesel Initiative (\$20 million over three years). Investing in and supporting clean energy solutions for remote Indigenous communities is a stated goal of the Pan-Canadian Framework on Clean Growth and Climate Change.

Other important federal programs supporting remote community projects include (but are not limited to):

- Northern Responsible Energy Approach for Community Heat and Electricity (REACHE) program (\$54 million over ten years), which funds clean energy, heating and energy efficiency programs in the Yukon, Northwest Territories, Nunavut, Nunavik and Nunatsiavut.
- Indigenous Forestry Initiative (\$13 million over three years) which supports Indigenous-led economic development in the forestry sector (including bioheat projects).
- Community Opportunity Readiness Program (\$21 million), providing project-based funding to Indigenous communities for a range of activities.
- Infrastructure Canada funding (through bilateral agreements with provinces and territories) including the Arctic Energy Fund (AEF, \$400 million over ten years), intended to bolster energy security by replacing end-of-life equipment and investing in clean energy, and Green Infrastructure funding.

- Low Carbon Economy Fund (\$2 billion over 5 years), most of which is being provided directly to provinces and territories.

The degree to which communities can directly access funding and lead projects under these different federal programs vary. For example, CERRC and Northern REACHE capital project funding is directly available to communities and local champions, provided that the project has support from the local utility if the electricity grid in the community will be impacted. AEF funding is more restricted as it is released through bilateral agreements with territorial governments, limiting opportunities for community leadership and ownership of projects.

Comprehensive energy efficiency and clean energy incentive programs for residents have not been available through the federal government for several years, since the cancellation of ecoENERGY energy efficiency retrofit incentives in 2012.<sup>146</sup> However, the current federal government has made substantial investments in energy efficiency in other areas — notably for retrofitting social housing in several jurisdictions including Nunavut. An accelerated depreciation tax incentive for clean energy also remains in place.<sup>147</sup>

Many remote Indigenous communities operating their own energy infrastructure as Independent Power Authorities (particularly in B.C. and Ontario) are also directly supported by federal government subsidies and operating agreements administered by Indigenous Services Canada. Provincial/territorial and utility policies such as IPP policies thus do not necessarily apply to these communities, potentially limiting their ability to pursue community-led projects until operating subsidy structures are revisited with the intention of incentivizing diesel reduction initiatives.

The current federal government has stated an intention to uphold the principles of UNDRIP through its planned introduction of a Recognition and Implementation of Indigenous Rights Framework.<sup>148</sup> The aim of the framework is to advance the federal government's stated goals of reconciliation and renewed relationship with Indigenous People, but this process has recently been challenged by opposition from Indigenous leaders and will likely not be in place this year.<sup>149</sup> In addition, Bill C-262 was introduced to Parliament as a private member's bill in 2016, and would have required that the laws of Canada are in harmony with UNDRIP, enshrining it into law.<sup>150</sup> However, the bill failed to pass into law by the end of the legislative session.<sup>151</sup>

## Recent project news

Funding for clean energy projects continues to be announced through the CERRC program, including \$10.4 million for the expansion of a hydroelectric facility and a large (2 MW) solar installation for Haida Gwaii, B.C. Other recent announcements include \$1.5 million for a biomass district heating system in Alkali Lake, B.C. and a \$2.1 million deep energy retrofit of the Arctic College in Iqaluit, Nunavut.<sup>152</sup>

# Progress report summary

Category	FED	Provinces							Territories		
		BC	AB	SK	MB	ON	QC	NL	YT	NT	NU
Government direction											
Long-term strategy and implementation support for reducing diesel in remote communities	●	●	●	●	●	●	●	●	●	●	●
Incentives and/or financing for clean energy and energy efficiency	●	●	○	●	●	●	●	●	●	●	●
Government commitments to reconciliation and better relationships with Indigenous communities	●	●	○	●	●	●	●	●	●	●	●
Utility and regulatory policy											
Transparent and well-supported power procurement policies		●	●	●	●	●	●	●	●	●	○
Clean energy valued at the avoided cost of diesel or higher		✘	✘	✘	✘	✘	✘	✘	✓	✘	✘
Community project experience											
Existing community-owned or championed projects		✓	✘	✘	✘	✓	✘	✘	✓	✓	✘
Community-led projects in development		✓	✓	✘	✓	✓	✓	✓	✓	✓	✓

Legend	● Significant policy in place	● Some policy in place	● Little or no policy in place	○ Unknown
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This cross-Canada scan demonstrates that policies and programs supporting diesel reduction in remote Indigenous communities vary widely from jurisdiction to jurisdiction. While the federal government and a small handful of provinces and territories are making good progress in supporting community-led clean energy initiatives, most have improvements to make in providing a supportive policy environment that enables community-led projects to advance.

## Government direction

Few jurisdictions in Canada have developed ambitious goals or targets specifically for the transition of remote Indigenous communities to clean energy, with the only clear exceptions being British Columbia, Yukon and the Northwest Territories. B.C. in particular has set the bar high, with an ambitious goal of reducing diesel consumption by 80% in remote communities by 2030. In several jurisdictions, funding commitments have been made to directly support clean energy projects in remote communities, including Alberta (although this funding support may be in transition) and the above-mentioned provinces and territories.

Jurisdictions including B.C. and Quebec are fortunate in having access to abundant sources of hydropower which may make it easier to fully eliminate diesel consumption in remote communities compared to other, more intermittent sources of clean energy. However, strong policies and a willingness to support community and Indigenous leadership are also facilitating this transition, as evidenced by successful project partnerships with communities in Ontario, Yukon and Alberta.

The federal government has also made significant investments in programs that support clean energy projects in remote communities, enabling several dozen new demonstration and deployment projects to be developed. Importantly, some (but not all) of these programs have prioritized community ownership and involvement in project development. Collaboration across federal departments will be key to building upon lessons learned from successful initiatives like CERRC, which are providing support directly to Indigenous project proponents and partnerships.

The landscape of energy efficiency and clean energy incentive programming across Canada is complex and is in a state of flux following several changes in government at the provincial level. Most provinces have some energy efficiency programs including rebates or incentives at the residential level, but fewer have programs that support the purchase of clean energy technologies. The programs with the most comprehensive

scope for energy efficiency and clean energy are currently found in B.C., Quebec, Yukon and Northwest Territories.

Recent program cuts have left jurisdictions like Ontario with rebate and incentive programs that are insufficient to drive a transformation of the market toward increased energy efficiency. The Alberta government has also signalled an intention to cut energy efficiency programs, though the full scope of these changes remains to be seen. These developments are a step backwards in terms of encouraging cost-effective reductions in energy consumption, and hence diesel consumption in remote communities.

Prioritizing community leadership, ownership and involvement in diesel reduction initiatives is an important goal not just for the long-term sustainability of energy infrastructure in remote Indigenous communities, but also as one possible pathway to advancing reconciliation and the acknowledgement of Indigenous rights to self-determination and autonomy. Several provinces and territories have made statements supporting the goals of UNDRIP or another reconciliation framework, but to date, only Manitoba and B.C. have existing or planned legislation that formally enshrines such a framework. In other jurisdictions such as Yukon, legally binding modern treaties such as Final Agreements are providing a different pathway to advancing Indigenous self-governance.

Government intentions and commitments to advancing reconciliation must be implemented not just through policy change but through action and accountability. Nearly all governments in Canada are falling behind in taking bold steps to empower voices of Indigenous leadership and recognize Indigenous rights to self-determination and a renewed relationship with colonial governments. Designing policies and programs in such a way that they actively prioritize Indigenous-led initiatives is a critical part of this process, and this element is being neglected in some jurisdictions, notably the Northwest Territories and Ontario.

## Utility and regulatory policy

The best examples of clear, transparent and well-designed utility procurement practices for remote communities currently exist in Ontario and Yukon. Ontario, through Hydro One's REINDEER program, and Yukon, through the government's IPP policy, provide a clearly defined market and process for community project proponents to sell their power to the utility. Several other IPP policies or calls for projects exist throughout Canada that provide opportunities for IPP projects to be integrated onto remote microgrids, including B.C., Quebec, and recently, Nunavut and Newfoundland and

Labrador, but the processes behind them are not as transparent as those in Ontario and Yukon.

In contrast, some jurisdictions are served by utilities that remain highly integrated and control the majority of electricity infrastructure in remote communities, including Northwest Territories, Saskatchewan and Manitoba. While there are some advantages to publicly-owned, integrated utilities in the on-grid context, remote Indigenous communities are unique both in their reliance on diesel infrastructure and in their desire to advance clean energy projects at the community level, with community leadership and involvement. Utilities and regulators must treat remote Indigenous communities differently from the rest of their service areas, and explore new ways of doing business and working in partnership with communities to realize the clean energy transition.<sup>153</sup>

Equally as important to enabling successful projects is the rate that proponents are offered for the clean energy they generate. There are costs that are *avoided* when diesel consumption is reduced due to the integration of a clean energy source. These savings can go above and beyond the simple marginal cost of that diesel energy (which simply assumes that less diesel fuel needs to be purchased, transported and burned) and extend to maintenance, operational and other savings.

Project proponents should be fairly compensated for this by receiving a PPA rate that is, at a minimum, equal to the full avoided cost of diesel energy. To date, only projects in the Yukon are known to have received such a rate (though progress has been made in Alberta as well). In contrast, some jurisdictions may not offer rates that even match the marginal cost of diesel consumption, making the business case for clean power projects extremely challenging.

The rationale for low PPA rates is difficult to understand considering the leadership witnessed in Yukon and the fact that operation and maintenance costs are accounted for in utility rates; any reduction in diesel consumption resulting from the proper installation of clean energy generation has the potential to reduce maintenance and operational costs of the diesel infrastructure. It is rational to expect these operational and maintenance savings to be offered to clean energy project proponents to further bolster their business case.

## Community project experience

The experience of remote Indigenous communities in championing, developing, owning and operating clean energy projects and reducing diesel use through energy efficiency

varies greatly from jurisdiction to jurisdiction. However, momentum is building among communities in all provinces and territories toward reducing diesel reliance, and a supportive policy environment that allows and encourages community-driven participation in projects is needed all across Canada. We look forward to seeing Nunavut, Saskatchewan and Newfoundland and Labrador catching up with the rest of the country in establishing their first large community-led energy projects.

The movement towards clean energy that has been growing among Canada's remote Indigenous communities is driven by many factors including a desire to advance self-reliance and self-determination, economic development, and the role of local, community-driven energy initiatives as a means of nation-building. These motivations differ from community to community and should not be generalized, but the number of projects and initiatives currently in development across Canada, as well as support for capacity building within remote Indigenous communities (such as the Indigenous Clean Energy Social Enterprise 20/20 Catalysts Program), is impressive.



# Recommendations

Based on previous research and engagement, and findings from this cross-jurisdictional scan, the following recommendations provide a path forward for governments, regulators and utilities to better enable diesel reduction, clean energy and Indigenous-led initiatives in remote communities.

## Policies and practices

1. Provincial, territorial and Indigenous governments should work collaboratively to develop ambitious targets and strategies for enabling the transition of remote Indigenous communities to clean energy. These targets must be backed with implementation funding, supporting programs and accountability mechanisms.
2. Utilities should take a harmonized approach in moving toward consistent, open and well-documented power procurement policies for remote Indigenous communities that give first priority to community-led projects and partnerships.
3. Regulators should work with utilities, governments and communities to explore new rate structures and utility business models that reward utilities for their role in ensuring grid stability and safety, rather than for ownership of assets.

## Data access

4. Utilities should freely provide historical energy consumption and load profile data to communities that request them.
5. Limits for integrating clean energy in each remote community should be determined on an ongoing and individual basis, backed by grid stability studies.

## Capacity building

6. Successful examples of policies, programs and partnerships should be transferred to other jurisdictions through open dialogue and sharing of lessons learned between governments at all levels, utilities and communities.
7. Governments must begin to shift their policies, practices and engagement with Indigenous communities as part of their commitments (and in some cases, legal obligations) to reconciliation. This includes supporting Indigenous-led capacity building initiatives, and advancing opportunities for self-determination.

## Financial support

8. Clean energy projects integrated into remote diesel microgrids should be offered a rate for their power that, at a minimum, considers avoided operation and maintenance costs on diesel generation equipment. In the longer-term, rates should include associated health, environmental and social cost savings as well.
9. Diesel subsidies should be fully accounted for to provide a fair cost comparison of diesel and clean energy and redirected to encourage the development of the latter.
10. Funding and financing for clean energy projects in remote Indigenous communities should be provided to proponents that demonstrate partnership and engagement with communities, or to community organizations themselves.

# Conclusion

There is tangible momentum across remote Indigenous communities in Canada shifting away from diesel reliance and toward clean and sustainable sources of energy. The motivations for this shift include the high cost of energy, reducing environmental and health impacts, pursuing new economic development opportunities, and advancing self-determination. In many cases, communities are advancing these goals despite the uneven approach of many government and utility policies that maintain control over decision-making affecting Indigenous communities, and offer inadequate opportunities for Indigenous engagement and participation. Governments, regulators and utilities across Canada need to respond to this Indigenous-led momentum, shifting and advancing policies and practices in order to enable fair, equitable access to diesel reduction opportunities and the accompanying economic, social, health and community.

Advancing partnerships with Indigenous communities can help colonial governments meet their goals and obligations to reconciliation, as well as contribute to climate and energy goals. Utilities also have an opportunity to shift their thinking away from traditional monopoly structures and lowest cost of service rates, toward a more sustainable business and partnership model that includes remote communities in the planning, ownership and operation of energy infrastructure. The decolonization of remote community energy systems should not be undervalued in terms of its positive contribution to Indigenous nation-building, self-determination and leadership.

Jurisdictions in Canada vary significantly in their policies, programs and practices that affect diesel and energy use in remote Indigenous communities, but renewed action is needed in all provinces and territories — some more than others. Bold government leadership should be offered from provinces and territories, prioritizing Indigenous-led projects and respecting the direction needed in Canada toward advancing reconciliation efforts. Navigating the changes that need to take place will require meaningful dialogue, transparency, and visionary thinking between governments, utilities, and communities, driven by Indigenous leadership and a desire for communities to be in control of their own energy future.

# Appendix A. Interviewees

The following individuals were consulted in the development of this report, through either email, telephone or in-person meetings:

Chris Henderson, Executive Director, Indigenous Clean Energy Social Enterprise

Derek Kornelsen, President, Rootstalk Resources and A SHARED Future researcher

Kory Wilson, Indigenous Strategist to the Pembina Institute and Executive Director, Indigenous Initiatives and Partnerships, B.C. Institute of Technology

Shane Andre, Director, Energy Branch, Government of Yukon

Bruno Ménard, Conseiller transition énergétique et affaires autochtones, Hydro-Québec

Jay Massie, Electric Utility Manager, ATCO Electric

Gaurang Mukherjee, Director of Engineering, Qulliq Energy Corporation

Michael Brandt, Vice-President, Yukon Energy Corporation

Kevin Mann, Manager, Business Integration & Customer Service, Hydro One Remote Communities

J. Michael Miltenberger, Principal, North Raven and former Minister Responsible for Northwest Territories Power Corporation

Clayton Stafford, Senior Partner, Greenplanet Energy Analytics

Bruce Duggan, President, Boke Consulting

Stephan Bowman, Environmental Policy Analyst, Government of Canada

# Endnotes

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- <sup>1</sup> Canada Centre for Mapping and Earth Observation, Natural Resources Canada, 2017.
- <sup>2</sup> A SHARED Future. <http://asharedfuture.ca>
- <sup>3</sup> Natural Resources Canada, “The Atlas of Canada - Remote Communities Energy Database.” <http://atlas.gc.ca/rced-bdece/en/index.html>
- <sup>4</sup> TAF, *Energy Efficiency Financing Tools for the Canadian Context* (2017). <http://taf.ca/wp-content/uploads/2017/03/Public-Financing-Tools-Guidance-Note-Mar-2017.pdf>
- <sup>5</sup> Dave Lovekin, Dylan Heerema, *The True Cost of Energy in Remote Communities: Understanding diesel electricity generation terms and economics*, 2nd edition (2019). <https://www.pembina.org/pub/diesel-true-cost>
- <sup>6</sup> Government of British Columbia, “CleanBC.” <https://cleanbc.gov.bc.ca>
- <sup>7</sup> CleanBC, “Better Homes.” <https://betterhomesbc.ca/>
- <sup>8</sup> Efficiency Canada, “Energy Efficiency in Canada: 2018, A Year in Review.” <https://www.energycanada.org/energy-efficiency-in-canada-2018-a-year-in-review/>
- <sup>9</sup> Government of British Columbia, “Reconciliation & Other Agreements.” <https://www2.gov.bc.ca/gov/content/environment/natural-resource-stewardship/consulting-with-first-nations/first-nations-negotiations/reconciliation-other-agreements>
- <sup>10</sup> Government of British Columbia, “First Nations Clean Energy Business Fund Revenue Sharing Agreements.” <https://www2.gov.bc.ca/gov/content/environment/natural-resource-stewardship/consulting-with-first-nations/first-nations-negotiations/first-nations-clean-energy-business-fund-revenue-sharing-agreements>
- <sup>11</sup> <https://www2.gov.bc.ca/gov/content/environment/natural-resource-stewardship/consulting-with-first-nations/first-nations-negotiations/reconciliation-other-agreements> “Reconciliation & Other Agreements.”
- <sup>12</sup> Eryn Fitzgerald, “Powering Self-Determination: Indigenous Renewable Energy Developments in British Columbia,” MA thesis (University of Victoria, 2018). [http://dspace.library.uvic.ca/bitstream/handle/1828/10475/Fitzgerald\\_Eryn\\_MA\\_2018.pdf](http://dspace.library.uvic.ca/bitstream/handle/1828/10475/Fitzgerald_Eryn_MA_2018.pdf)
- <sup>13</sup> BCHydro, “Standing Offer Program.” <https://www.bchydro.com/work-with-us/selling-clean-energy/standing-offer-program.html>
- <sup>14</sup> Personal communication, Chris Henderson, ICE Social Enterprise, June 11, 2019.
- <sup>15</sup> Government of British Columbia, *CleanBC: Our nature. Our power. Our future* (2018). [https://blog.gov.bc.ca/app/uploads/sites/436/2019/02/CleanBC\\_Full\\_Report\\_Updated\\_Mar2019.pdf](https://blog.gov.bc.ca/app/uploads/sites/436/2019/02/CleanBC_Full_Report_Updated_Mar2019.pdf)
- <sup>16</sup> Dave Lovekin, Barend Dronkers, Ben Thibault, *Power purchase policies for remote Indigenous communities in Canada: Research on government policies to support renewable energy projects* (Pembina Institute, 2016). [http://assets.wwf.ca/downloads/pembina\\_final\\_report.pdf](http://assets.wwf.ca/downloads/pembina_final_report.pdf)
- <sup>17</sup> “Powering Self-Determination.”
- <sup>18</sup> British Columbia Utilities Commission. <https://www.bcuc.com>
- <sup>19</sup> Government of British Columbia, “Hesquiaht First Nations making transition to clean, reliable energy,” media release, July 20, 2018. <https://news.gov.bc.ca/releases/2018IRR0050-001439>
- <sup>20</sup> Government of British Columbia, “Tsilhqot’in National Government building largest First Nations solar farm,” media release, March 13, 2019. <https://news.gov.bc.ca/releases/2019IRR0007-000392>

- 
- <sup>21</sup> Association of Power Producers of Ontario, “Three Nations Energy LP to build largest off-grid solar + storage,” media release, April 2019. <https://magazine.appro.org/news/national-news/5891-1555546537-three-nations-energy-lp-to-build-largest-off-grid-solar-storage.html>
- <sup>22</sup> Government of Alberta, *Climate Leadership Plan Implementation Plan 2018-19* (2018). [https://open.alberta.ca/dataset/da6433da-69b7-4d15-9123-01f76004f574/resource/b42b1f43-7b9d-483d-aa2a-6f9b4290d81e/download/clp\\_implementation\\_plan-jun07.pdf](https://open.alberta.ca/dataset/da6433da-69b7-4d15-9123-01f76004f574/resource/b42b1f43-7b9d-483d-aa2a-6f9b4290d81e/download/clp_implementation_plan-jun07.pdf)
- <sup>23</sup> Pembina Institute, “Albertans lose more than they gain with carbon tax repeal,” media release, May 22, 2019. <https://www.pembina.org/media-release/albertans-lose-more-they-gain-carbon-tax-repeal>
- <sup>24</sup> Government of Alberta, “Alberta Indigenous Climate Leadership Programs.” <https://www.alberta.ca/alberta-indigenous-climate-leadership-programs.aspx>
- <sup>25</sup> “Albertans lose more than they gain with carbon tax repeal.”
- <sup>26</sup> Barbara Carss, “Alberta energy efficiency programs in question”, *REMI Network*, June 7, 2019. <https://www.reminetwork.com/articles/alberta-energy-efficiency-programs-question>
- <sup>27</sup> Amanda Stephenson, “UCP steps back from scrapping NDP’s Energy Efficiency Alberta; will look at programs ‘with an open mind’,” *Calgary Herald*, May 24, 2019. <https://calgaryherald.com/business/local-business/kenney-government-will-consider-fate-of-energy-efficiency-programs-on-case-by-case-basis>
- <sup>28</sup> Paige Parsons, “City working on plan B climate initiatives in face of Energy Efficiency Alberta’s possible extinction,” *Edmonton Journal*, April 25, 2019. <https://edmontonjournal.com/news/local-news/city-working-on-plan-b-climate-initiatives-in-face-of-energy-efficiency-albertas-possible-extinction>
- <sup>29</sup> Pembina Institute, “Pembina reacts to Energy Efficiency Alberta announcement,” media release, October 27, 2016. <https://www.pembina.org/media-release/pembina-reacts-to-energy-efficiency-alberta-announcement>
- <sup>30</sup> Government of Alberta, “Indigenous Relations.” <https://www.alberta.ca/indigenous-relations.aspx>
- <sup>31</sup> Larry Innes, “Walking the Talk – Alberta’s New Government Moves to Implement UN Declaration on the Rights of Indigenous Peoples,” *Olthuis Kleer Townshend LLP*. <https://www.oktlaw.com/walking-talk-albertas-new-government-moves-implement-un-declaration-rights-indigenous-peoples/>
- <sup>32</sup> Canadian Press, “Alberta’s UCP would create Indigenous Crown corporation, help investments,” *CBC News*, April 3, 2019. <https://www.cbc.ca/news/canada/edmonton/ucp-indigenous-crown-corporation-energy-projects-1.5083346>
- <sup>33</sup> Personal communication, Greenplanet Energy Analytics, June 27, 2019.
- <sup>34</sup> Alberta Utilities Commission, “Distribution System Inquiry.” <http://www.auc.ab.ca/Pages/distribution-system-inquiry.aspx>
- <sup>35</sup> Pembina Institute, “\$3.3m grant for Fort Chipewyan will lead to Canada’s biggest remote solar project,” media release, February 7, 2019. <https://www.pembina.org/media-release/33m-grant-fort-chipewyan-will-lead-canadas-biggest-remote-solar-project>
- <sup>36</sup> Government of Saskatchewan, “A Made-in-Saskatchewan Climate Change Strategy.” <https://www.saskatchewan.ca/business/environmental-protection-and-sustainability/a-made-in-saskatchewan-climate-change-strategy>
- <sup>37</sup> SaskEnergy, “Energy Efficiency Programs.” [https://www.saskenergy.com/saving\\_energy/specialoffers.asp](https://www.saskenergy.com/saving_energy/specialoffers.asp)
- <sup>38</sup> SaskPower, “Net Metering Program.” <https://www.saskpower.com/our-power-future/powering-2030/generating-power-as-an-individual/using-the-power-you-make/net-metering-program>

- 
- <sup>39</sup> Government of Saskatchewan, “Premier’s Statement on the Truth and Reconciliation Commission Report, media release, June 5, 2015. <https://www.saskatchewan.ca/government/news-and-media/2015/june/05/commission-report>
- <sup>40</sup> Office of the Treaty Commissioner, “History.” <http://www.otc.ca/pages/history.html>
- <sup>41</sup> Government of Saskatchewan, “Moving Forward with the Truth and Reconciliation Commission.” <https://www.saskatchewan.ca/residents/first-nations-citizens/moving-forward-with-the-truth-and-reconciliation-commission>
- <sup>42</sup> Jonathan Guignard and Colton Prail, “Solar power installation complete on Cowessess First Nation,” *Global News*, October 10, 2018. <https://globalnews.ca/news/4533507/solar-power-installation-complete-in-cowessess-first-nation/>
- <sup>43</sup> SaskPower, *Aboriginal Procurement Policy* (2015). <https://www.saskpower.com/-/media/SaskPower/About-Us/Policy-Aboriginal-Procurement.ashx?la=en&hash=E51C41E8DCD388420DF0FB01075CF7C879E4B0AF>
- <sup>44</sup> SaskPower, “Selling the Power You Make.” <https://www.saskpower.com/Our-Power-Future/Powering-2030/Generating-Power-as-an-Individual/Selling-the-Power-You-Make>
- <sup>45</sup> “A Made-in-Saskatchewan Climate Change Strategy.”
- <sup>46</sup> Peter Ballantyne Cree Nation Health Services, “Kinoosao (partial Transferred).” [http://pbcnhealthservices.org/index.php?option=com\\_content&view=article&id=71&Itemid=111](http://pbcnhealthservices.org/index.php?option=com_content&view=article&id=71&Itemid=111)
- <sup>47</sup> Government of Manitoba, *Manitoba’s Clean Energy Strategy* (2012). [https://www.gov.mb.ca/sd/environment\\_and\\_biodiversity/energy/pubs/energy\\_strategy\\_2012.pdf](https://www.gov.mb.ca/sd/environment_and_biodiversity/energy/pubs/energy_strategy_2012.pdf)
- <sup>48</sup> Manitoba Sustainable Development, *A Made-in-Manitoba Climate and Green Plan* (2017). [https://www.gov.mb.ca/asset\\_library/en/climatechange/climategreenlanddiscussionpaper.pdf](https://www.gov.mb.ca/asset_library/en/climatechange/climategreenlanddiscussionpaper.pdf)
- <sup>49</sup> Manitoba Hydro, “PAYS Financing.” [https://www.hydro.mb.ca/your\\_home/pays/](https://www.hydro.mb.ca/your_home/pays/)
- <sup>50</sup> Manitoba Hydro, “Solar Energy Pilot Program.” [https://www.hydro.mb.ca/accounts\\_and\\_services/generating\\_your\\_own\\_electricity/solar\\_energy\\_pilot\\_program/](https://www.hydro.mb.ca/accounts_and_services/generating_your_own_electricity/solar_energy_pilot_program/)
- <sup>51</sup> Cameron MacLean, “New Crown corporation Efficiency Manitoba gets first board,” *CBC News*, May 17, 2018. <https://www.cbc.ca/news/canada/manitoba/efficiency-manitoba-board-appointed-1.4667527>
- <sup>52</sup> Government of Manitoba, Bill 18, *The Path to Reconciliation Act*. <https://web2.gov.mb.ca/bills/40-5/b018e.php>
- <sup>53</sup> Sean Kavanagh, “Pallister comes under fire after province cancels 2nd agreement with Manitoba Metis Federation,” *CBC News*, Oct 31, 2018. <https://www.cbc.ca/news/canada/manitoba/metis-mmf-government-agreement-hydro-manitoba-1.4885479>
- <sup>54</sup> Derek Kornelsen, “Is Manitoba on path to reconciliation?” *Winnipeg Free Press*, May 6, 2016. <https://www.winnipegfreepress.com/opinion/analysis/is-manitoba-on-path-to-reconciliation-378370111.html>
- <sup>55</sup> Manitoba Hydro, “Generating your own electricity.” [https://www.hydro.mb.ca/accounts\\_and\\_services/generating\\_your\\_own\\_electricity/](https://www.hydro.mb.ca/accounts_and_services/generating_your_own_electricity/)
- <sup>56</sup> Personal communication, Bruce Duggan, Boke Consulting, June 6, 2019.
- <sup>57</sup> Boke Consulting, “Northlands Dēnesūliné Renewable Energy & Remediation.” <http://bokeconsulting.com/northlands-denesuline-renewable-energy-remediation/>
- <sup>58</sup> Assembly of Manitoba Chiefs, “Innovation a key to success in Northlands Denesuline First Nation,” August 21, 2018. <https://manitobachiefs.com/northlandsfirstnation/>
- <sup>59</sup> Wataynikaneyap Power, “Phase 2.” <https://www.wataypower.ca/project/phase-2>
-

- 
- <sup>60</sup> Government of Ontario, *Achieving Balance: Ontario's Long-Term Energy Plan* (2013). [https://files.ontario.ca/books/ltep\\_2013\\_english\\_web.pdf](https://files.ontario.ca/books/ltep_2013_english_web.pdf)
- <sup>61</sup> Ontario Ministry of the Environment, Conservation and Parks, *A Made-in-Ontario Environment Plan* (2018). <https://prod-environmental-registry.s3.amazonaws.com/2018-11/EnvironmentPlan.pdf>
- <sup>62</sup> 3G Energy, "First Nation Projects." <https://www.3g-energy.com/first-nations>
- <sup>63</sup> Tess Kalinowski, "Green Ontario cancellation leaves homeowners, industry scrambling," *The Star*, June 20, 2018. [https://www.thestar.com/business/real\\_estate/2018/06/20/green-ontario-cancellation-leaves-homeowners-industry-scrambling.html](https://www.thestar.com/business/real_estate/2018/06/20/green-ontario-cancellation-leaves-homeowners-industry-scrambling.html)
- <sup>64</sup> Jason Viau, "'Assault on green energy:' Industry slams Doug Ford's decision to cancel incentives," *CBC News*, June 25, 2018. <https://www.cbc.ca/news/canada/windsor/industry-slams-doug-ford-green-energy-assault-1.4719298>
- <sup>65</sup> Krystalle Ramlakhan, "Ford government cancels electricity conservation programs," *CBC News*, March 24, 2019. <https://www.cbc.ca/news/canada/ottawa/ford-government-cancels-energy-electricity-efficient-programs-centralizing-1.5069318>
- <sup>66</sup> IESO, "Funding Programs." <http://www.ieso.ca/en/Get-Involved/Funding-Programs>
- <sup>67</sup> Government of Ontario, "Closing gaps and removing barriers," in *The Journey Together: Ontario's Commitment to Reconciliation with Indigenous Peoples* (2016). <https://www.ontario.ca/page/journey-together-ontarios-commitment-reconciliation-indigenous-peoples#section-5>
- <sup>68</sup> Rhiannon Johnson, "Ontario budget's cuts to Indigenous Affairs a setback for reconciliation, says Carolyn Bennett," *CBC News*, April 12, 2019. <https://www.cbc.ca/news/indigenous/ontario-budget-indigenous-affairs-cut-1.5096723>
- <sup>69</sup> Rhiannon Johnson, "Cancellation of Ontario TRC curriculum writing sessions a 'setback,' says educator," *CBC News*, July 16, 2018. <https://www.cbc.ca/news/indigenous/ontario-trc-curriculum-writing-cancellation-1.4749041>
- <sup>70</sup> Allison Jones, "Ontario eliminates Indigenous Culture Fund, cuts millions for the arts," *The Canadian Press*, May 26, 2019. <https://nationalpost.com/news/canada/ontario-eliminates-indigenous-culture-fund-cuts-millions-for-the-arts>
- <sup>71</sup> Government of Ontario, *Bill 76, United Nations Declaration on the Rights of Indigenous Peoples Act, 2019*. <https://www.ola.org/en/legislative-business/bills/parliament-42/session-1/bill-76>
- <sup>72</sup> Hydro One Remote Communities Inc., *Renewable Energy INnovation DiEsel Emission Reduction (REINDEER) Guideline* (2018). <https://www.hydroone.com/abouthydroone/CorporateInformation/Documents/Hydro%20One%20Remote%20Communities%20Inc%20REINDEER%20Guideline%202018.pdf>
- <sup>73</sup> Ontario Energy Board, *Hydro One Networks Inc. Application for electricity distribution rates beginning January 1, 2018 until December 31, 2022*, Decision and Order EB-2017-0049 (2019). [www.rds.oeb.ca/HPECMWebDrawer/Record/611119/File/document](http://www.rds.oeb.ca/HPECMWebDrawer/Record/611119/File/document)
- <sup>74</sup> Lisa DeMarco, "OEB Issues Groundbreaking Decision on Use of Distributed Energy Resources to Enhance Distribution Reliability in Indigenous and Northern Communities," *DeMarco Allan LLP*, March 11, 2019. <https://www.demarcoalan.com/single-post/2019/03/11/OEB-Issues-Groundbreaking-Decision-on-Use-of-Distributed-Energy-Resources-to-Enhance-Distribution-Reliability-in-Indigenous-and-Northern-Communities>
- <sup>75</sup> Nishnawbe Aski Development Fund, "Independent Power Authorities Initiative," presented at NAN Energy Conference Jan 31–Feb 2, 2012. <http://www.nan.on.ca/upload/documents/energy2012-pr-brian-davey-marlon-gasparotto---independent-power-authorities.pdf>



- 
- <sup>76</sup> CTV News Montreal, “From Shore to Sky: A reconciliation story.” <https://montreal.ctvnews.ca/from-shore-to-sky-a-reconciliation-story>
- <sup>77</sup> IESO, “Fully-integrated microgrid at Gull Bay First Nation first of its kind in Canada,” June 20, 2018. <http://www.ieso.ca/en/Powering-Tomorrow/Efficiency/Fully-integrated-microgrid-at-Gull-Bay-First-Nation-first-of-its-kind-in-Canada>
- <sup>78</sup> Association of Power Producers of Ontario, “Multiple contributors join OPG and Gull Bay First Nation in microgrid,” June 2018. <https://magazine.appro.org/news/ontario-news/5560-1529540280-multiple-contributors-join-opg-and-gull-bay-first-nation-in-microgrid.html>
- <sup>79</sup> Ontario Energy, Northern Development and Mines, “Pikangikum First Nation Connected to Ontario Power Grid,” media release, December 20, 2018. <https://news.ontario.ca/mndmf/en/2018/12/pikangikum-first-nation-connected-to-ontario-power-grid.html>
- <sup>80</sup> Government of Québec, *2013-2020 Climate Change Action Plan Phase 1* (2012). [http://www.environnement.gouv.qc.ca/changements/plan\\_action/pacc2020-en.pdf](http://www.environnement.gouv.qc.ca/changements/plan_action/pacc2020-en.pdf)
- <sup>81</sup> Transition énergétique Québec, “Residential.” <https://transitionenergetique.gouv.qc.ca/en/residential>
- <sup>82</sup> TREC, *Growing Indigenous Power: A Review of Indigenous Involvement & Resources to Further Renewable Energy Development Across Canada* (2018). [http://www.trec.on.ca/wp-content/uploads/2018/03/TREC-PPP\\_IndigenousPowerReport\\_FINAL.pdf](http://www.trec.on.ca/wp-content/uploads/2018/03/TREC-PPP_IndigenousPowerReport_FINAL.pdf)
- <sup>83</sup> Government of Québec, *The Plan Nord Toward 2035: 2015-2020 Action Plan Reference Framework* (2015). [https://plannord.gouv.qc.ca/wp-content/uploads/2015/04/Long\\_PN\\_EN.pdf](https://plannord.gouv.qc.ca/wp-content/uploads/2015/04/Long_PN_EN.pdf)
- <sup>84</sup> Government of Québec, *DO MORE, DO BETTER: Government Action Plan for the Social and Cultural Development of the First Nations and Inuit, 2017-2022* (2017). [http://www.autochtones.gouv.qc.ca/publications\\_documentation/publications/PAS/plan-action-social-en.pdf](http://www.autochtones.gouv.qc.ca/publications_documentation/publications/PAS/plan-action-social-en.pdf)
- <sup>85</sup> Jessica Deer, “First Nations leaders urge new Quebec government to keep its promise on Indigenous rights declaration,” *CBC News*, October 2, 2018. <https://www.cbc.ca/news/indigenous/quebec-election-caq-undrip-promise-1.4847625>
- <sup>86</sup> Hydro-Québec, *Strategic Plan 2016–2020* (2016). <http://www.hydroquebec.com/data/documents-donnees/pdf/strategic-plan.pdf>
- <sup>87</sup> Hydro-Québec, “Electricity supply contracts in force in Québec.” <http://www.hydroquebec.com/electricity-purchases-quebec/electricity-contracts.html>
- <sup>88</sup> Hydro-Québec, Plan D’approvisionnement 2017-2026 Réseaux Autonomes (2016). [http://publicsde.regie-energie.qc.ca/projets/389/DocPrj/R-3986-2016-B-0010-Demande-Piece-2016\\_11\\_01.pdf](http://publicsde.regie-energie.qc.ca/projets/389/DocPrj/R-3986-2016-B-0010-Demande-Piece-2016_11_01.pdf)
- <sup>89</sup> CBC News, “Wind turbine project on Quebec’s North Shore quickly spiralling into an election issue,” August 14, 2018. <https://www.cbc.ca/news/canada/montreal/caq-wind-project-lower-north-shore-1.4784604>
- <sup>90</sup> *Growing Indigenous Power*.
- <sup>91</sup> Personal communication, Bruno Ménard, Hydro-Québec, June 12, 2019.
- <sup>92</sup> Personal communication, Chris Henderson, ICE Social Enterprise, May 24, 2019.
- <sup>93</sup> Sarah Rogers, “Nunavik hydroelectric project eyes summer construction start,” *Nunatsiaq News*, March 18, 2019. <https://nunatsiaq.com/stories/article/nunavik-hydro-electric-project-eyes-summer-construction-start/>
- <sup>94</sup> Ibid.
- <sup>95</sup> “The Atlas of Canada - Remote Communities Energy Database.”
-

- 
- <sup>96</sup> Government of Newfoundland and Labrador, *The Way Forward On Climate Change* (2019). [https://www.exec.gov.nl.ca/exec/occ/publications/The\\_Way\\_Forward\\_Climate\\_Change.pdf](https://www.exec.gov.nl.ca/exec/occ/publications/The_Way_Forward_Climate_Change.pdf)
- <sup>97</sup> The Telegram, “Evaluating options for isolated communities,” May 26, 2012. <https://www.thetelegram.com/news/evaluating-options-for-isolated-communities-250429/>
- <sup>98</sup> Government of Nunatsiavut, *Nunatsiavut Energy Security Plan* (2016). <http://www.nunatsiavut.com/wp-content/uploads/2017/01/Nunatsiavut-Energy-Security-Plan.pdf>
- <sup>99</sup> Government of Newfoundland and Labrador, “Provincial Government Seeks Expressions of Interest for Renewable Energy Solutions in Isolated Diesel Communities,” media release, April 15, 2019. <https://www.releases.gov.nl.ca/releases/2019/nr/0415n11.aspx>
- <sup>100</sup> Wade Locke, *Newfoundland & Labrador Energy Innovation Roadmap: Priority Identification (Phase 1) Analysis Document: Other Energy Themes, Final Report*, prepared for the Government of Newfoundland and Labrador (2010). [https://www.nr.gov.nl.ca/nr/publications/energy/3\\_Analysis\\_documentOther\\_energy\\_themes.pdf](https://www.nr.gov.nl.ca/nr/publications/energy/3_Analysis_documentOther_energy_themes.pdf)
- <sup>101</sup> Personal communication, Chris Henderson, ICE Social Enterprise, May 24, 2019.
- <sup>102</sup> Take Charge. <https://takechargenl.ca>
- <sup>103</sup> Frank F. Fagan, “Speech from the Throne, Third Session of the Forty-Eighth General Assembly of the Province of Newfoundland and Labrador,” March 13, 2018. <https://www.releases.gov.nl.ca/releases/2018/exec/0313n01.aspx>
- <sup>104</sup> Government of Newfoundland and Labrador, *The Way Forward: A vision for sustainability and growth* (2016). [https://www.gov.nl.ca/pdf/the\\_way\\_forward.pdf](https://www.gov.nl.ca/pdf/the_way_forward.pdf)
- <sup>105</sup> CBC News, “Ramea wind project at a standstill as residents worry about high power rates,” June 10, 2018. <https://www.cbc.ca/news/canada/newfoundland-labrador/ramea-wind-power-project-at-standstill-1.4695679>
- <sup>106</sup> Global News, “Audit finds Muskrat Falls cost overruns became obvious soon after megaproject got underway,” February 18, 2019. <https://globalnews.ca/news/4972628/muskrat-falls-costs/>
- <sup>107</sup> Government of Newfoundland and Labrador, *Request for Expressions of Interest for Renewable Energy Solutions for Isolated Coastal Diesel-Powered Electricity Systems in Newfoundland and Labrador* (2019). <https://www.ppa.gov.nl.ca/gs/attachments/EOIENERGY/EOIENERGY-1.pdf>
- <sup>108</sup> Personal communication, Chris Henderson, ICE Social Enterprise, May 24, 2019.
- <sup>109</sup> *Growing Indigenous Power*.
- <sup>110</sup> Government of Yukon, *Climate Change Action Plan Update: January 2016-June 2018* (2018). <https://yukon.ca/sites/yukon.ca/files/env/env-climate-change-action-plan-update.pdf>
- <sup>111</sup> Yukon Energy, Mines and Resources, *Community Green Energy Initiative*. <http://www.energy.gov.yk.ca/pdf/Community-Green-Energy-Initiative.pdf>
- <sup>112</sup> Good Energy Rebates. <http://goodenergyyukon.ca>
- <sup>113</sup> Cody Reaume, “A backwards step on saving energy from the Yukon Utilities Board,” *Yukon Conservation Society*, January 16, 2019. <http://yukonconservation.org/news-events/a-backwards-step-on-saving-energy-from-the-yukon-utilities-board/>
- <sup>114</sup> Julien Gignac, “Yukon Energy pitches new power plant,” *Yukon News*, May. 29, 2019. <https://www.yukon-news.com/news/yukon-energy-pitches-new-power-plant/>
- <sup>115</sup> Personal communication, Yukon Energy Branch, June 3, 2019.
- <sup>116</sup> *Growing Indigenous Power*.
- <sup>117</sup> Mapping the Way. <https://mappingtheway.ca>
-

- 
- <sup>118</sup> 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>
- <sup>119</sup> Dave Lovekin, Dylan Heerema, *Comments on Qulliq Energy Corporation's proposed IPP policy* (Pembina Institute, 2019). <https://www.pembina.org/pub/qulliq-ipp-policy>
- <sup>120</sup> Kallan Lyons, "Vuntut Gwitchin First Nation plugs in Old Crow solar power project," *Yukon News*, June 25, 2018. <https://www.yukon-news.com/business/vuntut-gwitchin-first-nation-plugs-in-old-crow-solar-power-project/>
- <sup>121</sup> Government of the Northwest Territories, *2030 Energy Strategy Energy Action Plan 2018-2021* (2018). [http://library.assembly.gov.nt.ca/2018/ITI/a382208\\_td\\_212-183\\_2030\\_Energy\\_Strategy\\_Energy\\_Action\\_Plan.pdf](http://library.assembly.gov.nt.ca/2018/ITI/a382208_td_212-183_2030_Energy_Strategy_Energy_Action_Plan.pdf)
- <sup>122</sup> Government of the Northwest Territories, *2030 Energy Strategy* (2018). [https://www.inf.gov.nt.ca/sites/inf/files/resources/gnwt\\_inf\\_7272\\_energy\\_strategy\\_web-eng.pdf](https://www.inf.gov.nt.ca/sites/inf/files/resources/gnwt_inf_7272_energy_strategy_web-eng.pdf)
- <sup>123</sup> Personal communication, J. Michael Miltenberger, North Raven, June 26, 2019.
- <sup>124</sup> Northwest Territories Power Corporation, *Adding Renewables To Electricity Grids* (2018). [http://www.ntpc.com/docs/default-source/default-document-library/community-capacity-for-integrating-renewables-\(february-2018\).pdf?sfvrsn=2](http://www.ntpc.com/docs/default-source/default-document-library/community-capacity-for-integrating-renewables-(february-2018).pdf?sfvrsn=2)
- <sup>125</sup> Arctic Energy Alliance. <http://aea.nt.ca>
- <sup>126</sup> Government of the Northwest Territories, "GHG Grant Program for Government." <https://www.inf.gov.nt.ca/en/services/energie/ghg-grant-program-government>
- <sup>127</sup> CBC News, "5 things to know about devolution in the N.W.T.," March 10, 2013. <https://www.cbc.ca/news/canada/north/5-things-to-know-about-devolution-in-the-n-w-t-1.1327923>
- <sup>128</sup> Emily Blake, "Proposed N.W.T. legislation ignores Indigenous rights commitments, says citizens' group," CBC News, June 25, 2018. <https://www.cbc.ca/news/canada/north/proposed-nwt-legislation-undrip-council-of-canadians-1.4720270>
- <sup>129</sup> Government of the Northwest Territories, *Energy Strategy Discussion Guide* (2016). [https://www.inf.gov.nt.ca/sites/inf/files/resources/11523-\\_energy\\_discusson\\_guide\\_web\\_.pdf](https://www.inf.gov.nt.ca/sites/inf/files/resources/11523-_energy_discusson_guide_web_.pdf)
- <sup>130</sup> Ibid.
- <sup>131</sup> *Power purchase policies for remote Indigenous communities in Canada.*
- <sup>132</sup> Mitch Wiles, "Lutsel K'e Dene First Nation enters the power business," *CBC News*, May 27, 2016. <https://www.cbc.ca/news/canada/north/lutsel-ke-power-business-1.3602415>
- <sup>133</sup> Association of Power Producers of Ontario, "NWT tests variable speed diesel to aid integration of renewables," April 2018. <https://magazine.appro.org/news/national-news/5519-1524621198-nwt-tests-variable-speed-diesel-to-aid-integration-of-renewables.html>
- <sup>134</sup> Government of Nunavut, *Upagiatavut Setting the Course: Climate Change Impacts and Adaptation in Nunavut* (2013). [https://www.climatechangenunavut.ca/sites/default/files/3154-315\\_climate\\_english\\_reduced\\_size\\_1\\_0.pdf](https://www.climatechangenunavut.ca/sites/default/files/3154-315_climate_english_reduced_size_1_0.pdf)
- <sup>135</sup> Government of Nunavut, *Ikummatiit: The Government of Nunavut Energy Strategy* (2007). [https://gov.nu.ca/sites/default/files/ikummatiit\\_energy\\_strategy\\_english.pdf](https://gov.nu.ca/sites/default/files/ikummatiit_energy_strategy_english.pdf)
- <sup>136</sup> Environment and Climate Change Canada, "The governments of Canada and Nunavut announce investments in energy efficiency upgrades that help residents save energy and money," media release, September 10, 2018. <https://www.newswire.ca/news-releases/the-governments-of-canada-and-nunavut-announce-investments-in-energy-efficiency-upgrades-that-help-residents-save-energy-and-money-692845531.html>

- 
- <sup>137</sup> Nunavut Agreement. <https://nlca.tunnngavik.com>
- <sup>138</sup> Qulliq Energy Corporation, “Qulliq Energy Corporation completes power plants in Grise Fiord and Cape Dorset,” media release, January 24, 2019. <https://www.qec.nu.ca/qulliq-energy-corporation-completes-power-plants-grise-fiord-and-cape-dorset>
- <sup>139</sup> Kivalliq Hydro-Fibre Link. <https://www.kivalliqlink.ca>
- <sup>140</sup> *Growing Indigenous Power.*
- <sup>141</sup> Qulliq Energy Corporation, “Independent Power Producer Program.” <https://www.qec.nu.ca/customer-care/independent-power-producer-program>
- <sup>142</sup> Personal communication, Qulliq Energy Corporation, June 20, 2019.
- <sup>143</sup> *Comments on Qulliq Energy Corporation’s proposed IPP policy.*
- <sup>144</sup> Sarah Rogers, “Nunavut community to expand solar project with new federal funds,” *Nunatsiaq News*, January 4, 2018. [https://nunatsiaq.com/stories/article/65674nunavut\\_community\\_to\\_expand\\_solar\\_project\\_with\\_new\\_federal\\_funds/](https://nunatsiaq.com/stories/article/65674nunavut_community_to_expand_solar_project_with_new_federal_funds/)
- <sup>145</sup> John Thompson, “Company testing Rankin Inlet as site for wind turbines,” *Nunatsiaq News*, September 20, 2018. [https://nunatsiaq.com/stories/article/65674company\\_testing\\_rankin\\_inlet\\_as\\_site\\_for\\_wind\\_turbines/](https://nunatsiaq.com/stories/article/65674company_testing_rankin_inlet_as_site_for_wind_turbines/)
- <sup>146</sup> Josh Tapper, “Federal government pulls plug on ecoENERGY Retrofit program,” *The Star*, January 30, 2012. [https://www.thestar.com/news/canada/2012/01/30/federal\\_government\\_pulls\\_plug\\_on\\_ecoenergy\\_retrofit\\_program.html](https://www.thestar.com/news/canada/2012/01/30/federal_government_pulls_plug_on_ecoenergy_retrofit_program.html)
- <sup>147</sup> Natural Resources Canada, “Tax Savings for Industry.” <https://www.nrcan.gc.ca/energy/funding/5147>
- <sup>148</sup> Government of Canada, “Overview of a Recognition and Implementation of Indigenous Rights Framework.” <https://www.rcaanc-cirnac.gc.ca/eng/1536350959665/1539959903708?wbdisable=true>
- <sup>149</sup> Jorge Barrera, “Battle brewing over Indigenous rights recognition framework,” *CBC News*, September 11, 2018. <https://www.cbc.ca/news/indigenous/indigenous-rights-framework-bennett-1.4819510>
- <sup>150</sup> Bill C-262, *An Act to ensure that the laws of Canada are in harmony with the United Nations Declaration on the Rights of Indigenous Peoples*, 1st Session, 42nd Parliament, 2019. <https://www.parl.ca/LegisInfo/BillDetails.aspx?billId=8160636&Language=E>
- <sup>151</sup> Assembly of First Nations of Quebec and Labrador, “Bill C-262 Dead on the Order Paper: Partisanship Over the Rights of Indigenous Peoples,” media release, June 25, 2019. Available at <https://www.newswire.ca/news-releases/bill-c-262-dead-on-the-order-paper-partisanship-over-the-rights-of-indigenous-peoples-835033043.html>
- <sup>152</sup> Natural Resources Canada, “Minister Sohi Highlights Investments in Canada’s Clean Energy and Clean Technology,” media release, May 28, 2019. Available at <https://www.newswire.ca/news-releases/minister-sohi-highlights-investments-in-canada-s-clean-energy-and-clean-technology-811760075.html>
- <sup>153</sup> Dylan Heerema, “The future of the electric utility in Canada’s remote communities: Regulatory and business model reforms could accelerate clean energy transition,” *Pembina Institute*, May 10, 2019. <https://www.pembina.org/blog/remote-utility-future>