Clean Technology Integration in Remote Communities: Policies, Programs, and Initiatives by Federal, Provincial, and Territorial Governments

Energy and Mines Ministers' Conference

Iqaluit, Nunavut

August 2018

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Aussi disponible en français sous le titre : Intégration des technologies propres dans les collectivités éloignées : politiques, programmes et initiatives par les gouvernements fédéral, provinciaux et territoriaux

N° de cat. xx-xxx/2018E-PDF
ISBN xxx-x-xxx-xxxxx-x

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Introduction

At the Energy and Mines Ministers' Conference (EMMC) 2017 in St. Andrews by-the-Sea, New Brunswick, Ministers affirmed the critical importance of working together to develop a low-carbon economy that will "help advance Canada's efforts to create the best path to well-paying, long-term jobs, healthy communities and sustainable economic growth."

Ministers acknowledged that leveraging clean technology and innovation will be key to achieving this goal. This includes advancing collaboration and clean technology integration to improve access to diesel alternatives in remote, northern, and off-grid communities. At EMMC 2018, Ministers' energy priorities emphasized northern and remote communities, and intergovernmental cooperation.

This report is a scan of current or recent policies, programs, and other government initiatives at the federal, provincial, and territorial levels that can be directed towards, or are directly aimed at, reducing reliance on diesel through the integration of clean technologies in energy systems. It can serve as a central source of information regarding available and recently available resources to remote, northern, and off-grid communities for clean technology integration. For each jurisdiction, the report provides an overview of the policy and regulatory framework; a list of programs and initiatives supporting clean energy technology integration; and detailed descriptions of those programs and initiatives that support the reduction of diesel in remote communities.

How to use this report

This report helps to inform all stakeholders of a range of considerations, including both the challenges impacting the degree to which clean energy technology sources may reliably displace diesel today, with a particular interest in their application in remote communities, and the available support for renewable energy projects and diesel alternatives moving forward.

Each section of the report provides an overview of remote communities in each jurisdiction, as well as the characteristics of their energy consumption. In provinces where there are no remote communities, their efforts towards clean technology integration in their energy systems are still featured in this report. Each section outlines what policies, guidelines, and frameworks help to integrate clean technology in communities throughout the province or territory. Each section also features a table listing resources and initiatives for clean technology integration in communities throughout the jurisdiction. Initiatives that specifically address reducing reliance on diesel energy in remote communities are profiled individually in the report.

Items in underlined blue text in the digital version (.pdf) of this report are hyperlinked directly to sections within this report, or to online resources for more information on that specific initiative.

Ultimately, a shared vision would guide FPT efforts to address clean technology integration in the energy use of communities across Canada.

Definition

For the purposes of this report, “remote communities” are defined as those connected to neither the North American electrical grid nor the natural gas pipeline network. They are longer-term settlements (five years or more) with at least 10 dwellings and may be described as remote, northern, or off-grid communities.

Considerations and Caveats

This scan of available clean energy technology resources was conducted in the run up to EMMC 2018 in cooperation with provincial and territorial governments and several departments of the federal government. While the objective has been to include the most up to date information to the time of publication, the report may not appropriately reflect recently closed or newly announced programs. Initiatives are presented in alphabetical order and are not meant to imply priority or importance.

Initiatives with detailed profiles are strongly-related to efforts to reduce diesel reliance in remote communities. This includes: initiatives that explicitly state reducing diesel reliance as a primary result of the program; programs for clean technology integration in First Nations, Métis, and Inuit communities; initiatives that explicitly take place in Northern, off-grid , or remote communities; and general initiatives in jurisdictions where remote communities are prevalent (i.e., Northwest Territories, Nunavut, and Yukon).

Jurisdictions where there are little to no communities under the definition of remote communities are still presented in this report (i.e. Saskatchewan, New Brunswick, PEI, and Nova Scotia). Their initiatives are profiled to demonstrate a shared vision for clean technology integration in energy systems across Canada and could be used to model further initiatives for reducing diesel in remote communities.

Details provided on initiatives are publicly available or have been shared for the purposes of this report by federal, provincial, or territorial governments. This report does not include available resources for clean technology integration from the private sector.

Data on remote communities across Canada used for this report is derived from the most up-to-date figures of NRCan’s Remote Communities Database, which may not be reflected in data currently published widely online.

Government of Canada

Federal-level Initiatives for Clean Energy Technology Integration and Reducing Diesel Reliance

Federal-level Policy, Guidance and Regulatory Landscape for Reducing Diesel

Clean Energy and Infrastructure Priority (***Polar Knowledge Canada***)

Clean Energy for Rural and Remote Communities: Capacity Building Stream (***Natural Resources Canada***)

Clean Energy for Rural and Remote Communities: BioHeat, Demonstration & Deployment Program Stream (***Natural Resources Canada***)

Impact Canada Initiative: Clean Technology Stream, Off- Diesel Challenge (***Natural Resources Canada***)

Investing in Canada Infrastructure Program – Green Stream (***Infrastructure Canada***)

Investing in Canada Infrastructure Program – Rural and Remote Communities/Arctic Energy Fund (***Infrastructure Canada***)

Low-Carbon Economy Leadership Fund (***Environment and Climate Change Canada***)

National Housing Strategy (***Canada Mortgage and Housing Corporation***)

Northern Responsible Energy Approach for Community Heat and Electricity (***Crown-Indigenous Relations and Northern Affairs Canada***)

Remote Communities Profile

- More than 260 active remote communities across Canada
- More than 15 active remote commercial sites across Canada
- Population of active remote communities/commercial sites across Canada approx. 196 786

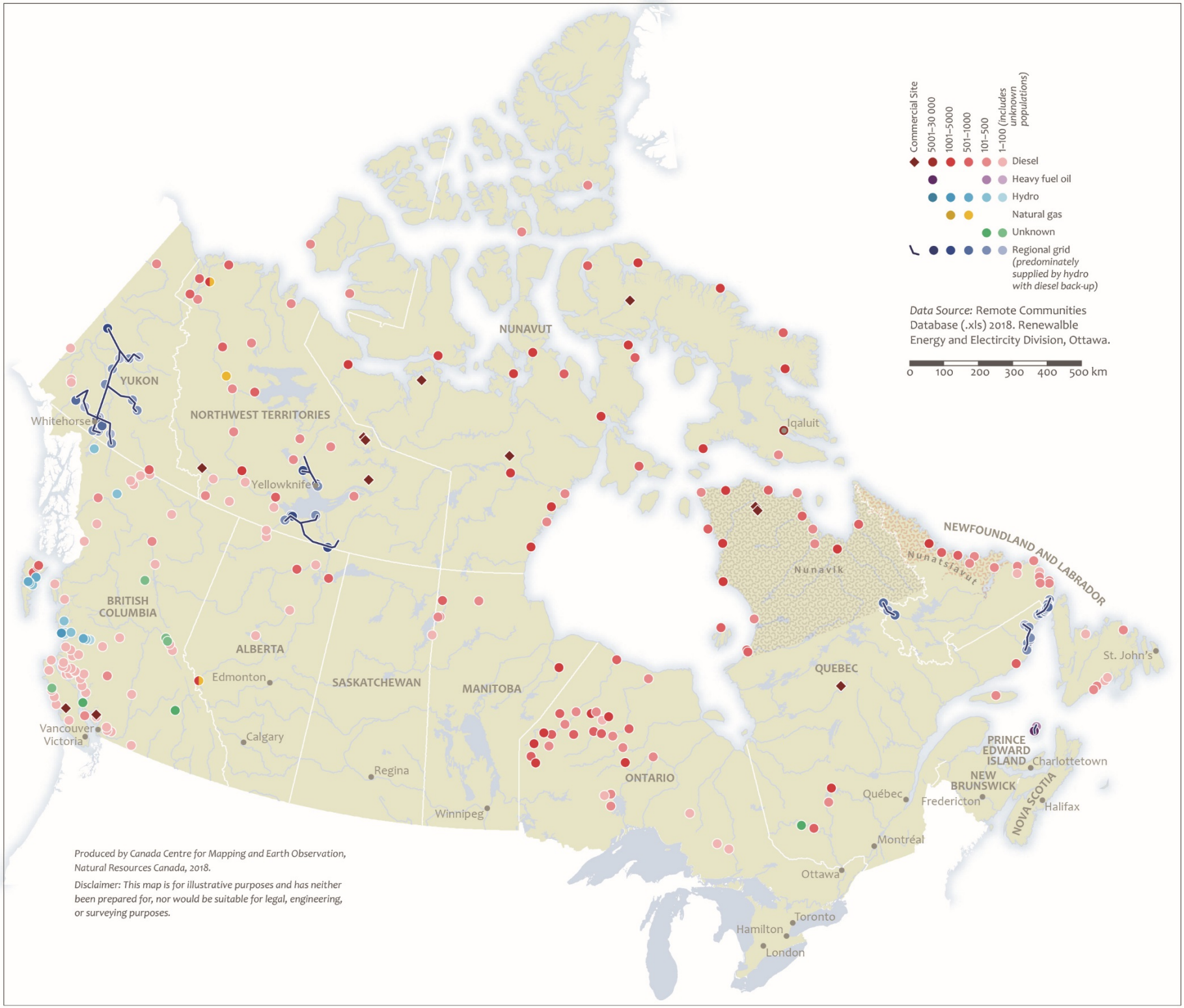
Energy Profile

Number of non-commercial active remote communities whose main power source is…

Diesel	Heavy Fuel	Hydro	Natural Gas	Regional Grid	Other/Unknown
~ 203	~ 3	~ 35	~ 3	~ 26	~ 7

~ 530 000 kW of total diesel generation capacity in active remote communities across Canada.
~ 186 360 000 MWh/year of total annual diesel generation in remote communities across Canada.
~ 335 000 000 litres of diesel consumed annually in active remote communities across Canada.[1]

[1] Data on remote communities across Canada used for this report is derived from the most up-to-date figures of NRCan's Remote Communities Database (2018) - atlas.gc.ca/rced-bdece/en/index.html


Commercial Site
5001–30 000
1001–5000
501–1000
101–500
1–100 (includes unknown populations)
Diesel
Heavy fuel oil
Hydro
Natural gas
Unknown
Regional grid (predominately supplied by hydro with diesel back-up)
Data Source: Remote Communities Database (.xls) 2018. Renewalble Energy and Electircity Division, Ottawa.
0 100 200 300 400 500 km
NUNAVUT
YUKON
NORTHWEST TERRITORIES
BRITISH COLUMBIA
ALBERTA
SASKATCHEWAN
MANITOBA
ONTARIO
QUEBEC
NEWFOUNDLAND AND LABRADOR
Nunavik
Nunatsiavut
PRINCE EDWARD ISLAND
NEW BRUNSWICK
NOVA SCOTIA
Whitehorse
Yellowknife
Iqaluit
Edmonton
Calgary
Regina
Winnipeg
Vancouver
Victoria
Québec
Montréal
Ottawa
Toronto
Hamilton
London
Fredericton
Charlottetown
Halifax
St. John's
Produced by Canada Centre for Mapping and Earth Observation, Natural Resources Canada, 2018.
Disclaimer: This map is for illustrative purposes and has neither been prepared for, nor would be suitable for legal, engineering, or surveying purposes.

Federal-level Policy, Guidance and Regulatory Landscape for Clean Technology Integration

Federal Carbon Pricing Benchmark	The federal government outlined a benchmark for carbon pricing that reflects the principles proposed by the Working Group on Carbon Pricing Mechanisms and the Vancouver Declaration. Its goal is to ensure that carbon pricing applies to a broad set of emission sources throughout Canada with increasing stringency over time to reduce GHG emissions at lowest cost to business and consumers and to support innovation and clean growth.
Pan-Canadian Framework on Clean Growth and Climate Change	Reducing reliance on diesel by working with Indigenous Peoples and remote communities is a priority of the Pan-Canadian Framework. The Government of Canada will work with the provinces and territories to work in partnership with northern, remote and Indigenous communities to reduce their reliance on diesel.
Pan-Canadian Summit on Reducing Diesel in Remote Communities	In 2016, the federal government was invited to participate in select areas of the provincially led Canadian Energy Strategy, one of which is exploring ways to reduce diesel use in remote communities. In fall 2016, the federal government worked with the CES Task Force to reduce diesel use in remote communities to plan and organize a Pan-Canadian Summit in Winnipeg, Manitoba (January 16–18, 2017). A Summit report, which includes recommendations on ways to support the reduction of diesel use in remote communities, was tabled with Premiers at the Council of the Federation in July 2017. See the full profile of the Pan-Canadian Summit in the Manitoba section of this report.

Clean Energy and Infrastructure Priority

Capacity Development (Ongoing)
Polar Knowledge Canada

Polar Knowledge Canada's (POLAR) Clean Energy and Infrastructure priority will help remote northern communities reduce their dependency on diesel by:

- mobilizing renewable technologies (wind, solar, bioenergy and micro hydro)
- testing and 'northernizing' clean energy technologies
- supporting capacity building in energy project development and management

Description	The mission of Polar Knowledge Canada (POLAR) is to conduct world-class cutting edge Arctic research. POLAR is responsible for advancing Canada's knowledge of the Arctic and strengthening Canadian leadership in polar science and technology. Polar Knowledge Canada was created by the Canadian High Arctic Research Act, which came into force on June 1, 2015. This new federal organization combines the resources and knowledge of the former Canadian Polar Commission and the former Science and Technology program at Indigenous Affairs and Northern Development Canada (INAC) into one organization. It anchors a strong research presence in Canada's Arctic that will serve Canada and the world, and will advance Canada's knowledge of the Arctic in order to improve economic opportunities, environmental stewardship, and the quality of life of Northerners and all Canadians. POLAR continues to support the Government of Canada's commitment to and respect for the Nunavut Land Claims Agreement. POLAR will operate out of the Canadian High Arctic Research Station (CHARS), campus in Cambridge Bay, Nunavut. POLAR operates a pan-northern science and technology program. Polar Knowledge Canada recognizes the critical importance of broad-based input, especially from Northerners, in the development and implementation of its five-year Science and Technology Plans. This builds on the long history of consultation undertaken by Indigenous and Northern Affairs Canada in the design of the station and the program. Priority areas for 2015-2020: • Alternative and renewable energy for the North • Baseline information to prepare for northern sustainability • Predicting the impacts of changing ice, permafrost, and snow on shipping, infrastructure and communities • Catalysing improved design, construction, and maintenance of northern built infrastructure

Funding and Timeframe	POLAR funds renewable energy projects via its Science and Technology for the North Program. This is done by open calls for proposals and direct solicitations. The timing of POLAR's next open call for proposals is still to be determined.
Eligible Recipients	Organizations officially registered in Canada, with the exception of federal government departments and agencies
Progress/Results	POLAR has completed three field seasons. Research to date includes monitoring of terrestrial, aquatic, and marine environment and wildlife, permafrost research, alternative energy research, community-based research and outreach, and much more is planned over the next few years.
Contact	Website: canada.ca/en/polar-knowledge/behindthescenes.html

Clean Energy for Rural and Remote Communities (CERCC): Capacity Building Stream

Incentive Program/Capacity Development (Ongoing)
Natural Resources Canada

The Clean Energy for Rural and Remote Communities (CERRC) program seeks proposals that outline knowledge and skill-building initiatives to reduce dependency on diesel in rural and remote communities under the *Capacity Building Stream*. Remote and rural communities, for-profit and not-for-profit organizations, governments, and Indigenous organizations are encouraged to apply. Average project funding will be $100,000—$400,000, depending on size, scope, timeline and leveraged funding.

Description	The federal government plans to make investments to maximize diesel and greenhouse gas reductions through the Pan-Canadian Framework (PCF) on Clean Growth and Climate Change. The PCF commits to reducing GHG emissions by supporting rural and remote communities in their transition toward more secure, affordable, clean energy. The CERRC: Capacity Building Stream program is seeking proposals that outline knowledge and skill-building initiatives to reduce dependency on diesel in rural and remote communities. They include: **Curriculum and technical training** - Building skills and knowledge, eligible projects could include adding and/or updating modules to existing courses or expanding a current program in a new area. **Network development or** support - Connecting community leaders or developing community networks related to renewable energy development, reduction of reliance on diesel or energy efficiency. **Youth and energy** - Improving energy literacy, job availability and skills of youth in clean energy fields. **Women and energy** - Improving energy literacy, job availability and skills of women in clean energy fields. **Community energy planning or resource assessments** - Completing community energy visioning, developing community energy plans or resource assessments on a regional basis or for individual communities. **Other** - Working on something interesting? Proposals outside of these streams could be accepted provided they relate to the program objective of reducing reliance on diesel in rural and remote communities.

Funding and Timeframe	Proposals may cover one or more streams and may propose projects over 1 to 6 years starting in 2018/19. Average project funding will be $100,000—$400,000, dependent on size, scope, timeline and leveraged funding. Projects outside this range will be considered on an individual basis.
Eligible Recipients	Capacity building activities related to a specific project (e.g., training a wind technician to manage a wind deployment project) are not eligible for the capacity building stream, but are eligible activities for a project proposal to NRCan's Clean Energy for Rural and Remote Communities (Deployment, Demonstration or BioHeat streams). Communities are able to partner with a variety of other eligible recipients that are legal entities incorporated or registered in Canada including: For-profit and not-for-profit organizations - Utilities, industry associations, research associations, regional and community development corporations. Governments - Provincial, territorial, regional and municipal governments, their departments and agencies. Indigenous organizations - Governments, councils, for-profit and non-profit organizations.
Progress/Results	Phase 1 call for preliminary proposals completed April 10. Successful phase 2 project funding will be available and finalized in Fall 2018.
Contact	Website: nrcan.gc.ca/energy/science/programs-funding/20477

Clean Energy for Rural and Remote Communities (CERCC): BioHeat, Demonstration & Deployment Program Streams

Incentive Program/Capacity Development (Ongoing)
Natural Resources Canada

The Clean Energy for Rural and Remote Communities (CERRC) program seeks to reduce the reliance of rural and remote communities on diesel fuel for heat and power through the BioHeat, Demonstration & Deployment Program stream. Remote and rural communities, for-profit and not-for-profit organizations, governments, and Indigenous organizations are encouraged to apply. Average project funding will be $100,000—$400,000, dependent on size, scope, timeline and leveraged funding. Projects outside this range will be considered on an individual basis.

Description	The federal government plans to make investments to maximize diesel and greenhouse gas reductions through the Pan-Canadian Framework (PCF) on Clean Growth and Climate Change. The PCF commits to reducing GHG emissions by supporting rural and remote communities in their transition toward more secure, affordable, clean energy. The CERRC: BioHeat, Demonstration & Deployment Program Stream seeks proposals to reduce the reliance of rural and remote communities on diesel fuel for heat and power. The program, which plans to support a suite of diverse projects across Canada, will be evaluated against a range of criteria. Proposals will need to demonstrate local community support and outline the community benefits of the project, particularly for Indigenous communities. The project must fit into one of the following streams: **BioHeat to reduce fossil fuel use** through the installation, retrofit or investigation into the feasibility of biomass heating or combined heat and power systems for community and/or industrial applications. **Innovative demonstrations to reduce diesel use** through the validation of novel renewable energy, energy efficiency, energy storage, and smart-grid technologies and applications. **Deployment of renewable energy technologies for electricity** including hydro, wind, solar, geothermal, and bioenergy. Heat may also be produced, but the primary purpose of the project must be electricity production.
Funding and Timeframe	Following the deadline for first year (2018-2019) funding (May 17, 2018) the program will have a continuous intake process until all funding has been allocated.
Eligible Recipients	Capacity building activities related to a specific project (e.g., training a wind technician to manage a wind deployment project) are not eligible for the capacity building stream, but are eligible activities for a project proposal to NRCan's Clean Energy for Rural and Remote Communities (Deployment, Demonstration or BioHeat streams).

	Community-led solutions are the program's priority. Partnerships between multiple communities or communities with other groups are also strongly encouraged. Communities are able to partner with a variety of other eligible recipients that are legal entities incorporated or registered in Canada including: For-profit and not-for-profit organizations - Utilities, industry associations, research associations, regional and community development corporations. Governments - Provincial, territorial, regional and municipal governments, their departments and agencies. Indigenous organizations - Governments, councils, for-profit and non-profit organizations.
Progress/Results	The deadline for submission was May 17, 2018, to be considered for funding in the first year (2018–19) of the program. Following the deadline for first year funding, the program will have a continuous intake process until all funding has been allocated. The program will notify applicants, once the continuous intake process is closed.
Contact	Website: nrcan.gc.ca/energy/science/programs-funding/19791

Impact Canada Initiative: Clean Technology Stream
Off-Diesel Challenge

Incentive Program/Capacity Development (Ongoing)
Natural Resources Canada

Impact Canada Initiative seeks to accelerate the development of breakthrough solutions to Canada's complex and persistent problems on climate change, clean growth, and the application of new technologies to reduce negative environmental impacts. Impact Canada's co-development and challenge-based approach welcomes a broader range of stakeholders to invest in advancing Canada's clean tech priorities. The Impact Canada clean technology stream is currently developing a challenge in the areas of supporting and partnering with remote communities (Off-Diesel Challenge).

Description	The Government of Canada, through Federal Budget 2017, announced the creation of the Impact Canada Initiative to help focus and accelerate efforts toward solving Canada's big challenges. The Budget committed $75 million over 4 years to create the Clean Tech stream, lead by Natural Resources Canada. The Off-Diesel Challenge of the Clean Tech stream focuses on reducing diesel reliance in remote communities. $25 million of the Clean Tech stream is committed to the Off-Diesel Challenge. NRCan has engaged with stakeholders to co-create the Off-Diesel Challenge. This has helped to: • understand the most pressing issues • define the barriers to running a successful challenge • develop an appropriate funding and support structure • build capacity among the challenge participants
Funding and Timeframe	The Challenge is expected to launch in 2018. $25 million in funding will be allocated over approximately 2.5 years, with the challenge winner(s) announced by early 2021. It is anticipated that the Challenge will include multiple phases where portions of funding will be allocated to support participants as they move through the Challenge.
Eligible Recipients	Participation in the Off-Diesel Challenge is open to remote communities reliant on diesel as a main power (heat and electricity) source. Engagement will be carried out through spring and summer 2018 to co-create critical components of the Challenge. Outcomes from these sessions may result in a reduced participant scope.

Progress/Results	A workshop held on October 23, 2017 in Whitehorse brought together over 50 experts and stakeholders to launch the co-creation process for the challenge. Under this challenge, NRCan has held several engagement events with provincial and territorial governments and other stakeholders in remote communities to co-create the design and parameters of the Challenge. Engagement sessions will continue to be carried out over spring and summer 2018. Most recently, the challenge concept was presented at a workshop in Iqaluit, NU in March 2018. Engagement sessions included: • North by North Conference- Anchorage, Alaska (April 25-29th) • Yellowknife – Northern Housing Forum (May 1 – 4) • Additional workshops to followed including a session with the Indigenous Clean Energy Network (Lumos Energy)
Contact	Website: impact.canada.ca Meaghan Bennett, Senior Policy Advisor, NRCan E-mail: meaghan.bennett@canada.ca

Investing in Canada Infrastructure Program – Green Stream

Allocation-based Contribution Funding Program (Ongoing)
Infrastructure Canada

The Green Stream of the Investing in Canada Infrastructure Program will provide $9.2 billion to fund projects that support green infrastructure projects that support Climate Change Mitigation, Adaptation, Resilience and Disaster Mitigation, and Environmental Quality in communities across the country.

Description	Reflecting the wide range of infrastructure needs that fall within this category, the Green Infrastructure funding stream is divided into three sub-streams: **Climate Change Mitigation**—supporting projects such as cleaner energy generation, cleaner transportation initiatives and others that will reduce greenhouse gas (GHG) emissions; **Adaptation, Resilience and Disaster Mitigation**—helping to make communities more resilient by investing in projects that enable them to better withstand and mitigate the impacts of climate change; and **Environmental Quality**—building healthier communities through investments in clean, safe drinking water, sewage treatment, and reducing or remediating soil and air pollutants.
Funding and Timeframe	The Government of Canada is investing more than $33 billion in federal infrastructure funding through bilateral agreements with provinces and territories under the following four funding streams: • $20.1 billion for public transit; • $9.2 billion for green infrastructure; • $1.3 billion for community, cultural and recreational infrastructure; and • $2 billion for wide-ranging infrastructure needs in rural and northern communities. • In addition, the $400 million Arctic Energy Fund is in place to support energy security in the territories. Under the Green Infrastructure stream, each province and territory receives a base amount of $200 million, with the remaining funds allocated according to population, using 2016 Statistics Canada Census data. Projects will be prioritized by the provinces and territories to submit for consideration of federal funding.

Eligible Recipients	• A municipal or regional government. • A public sector body that is established by or under P/T statute or by regulation, or is wholly-owned by a P, T, municipal or regional government. • When working in partnership with a municipality, a public or not-for-profit institution that delivers post-secondary courses or programs. • Eligible Indigenous recipients will include First Nations communities on-reserve, First Nations communities covered by modern treaty and/or self-government agreements, Inuit communities, Métis settlements as well as recognized Indigenous organizations. • A private sector body, including for-profit organizations and not-for-profit organizations. In the case of for-profit organizations, they will need to work in partnership with one or more of the entities referred to above.
Progress/Results	Agreements were expected to be signed with provinces and territories by Spring 2018. After the signing of bilateral agreements, provinces and territories will then put forward priority projects for federal approval. Projects in each jurisdiction may be put forward until all funding has been allocated.
Contact	Website: infrastructure.gc.ca/plan/about-invest-apropos-eng.html Please contact your province or territory to put your projects forward for consideration.

Investing in Canada Infrastructure Program – Rural and Remote Communities/Arctic Energy Fund

Allocation-based Contribution Funding Program (Ongoing)
Infrastructure Canada

Rural and Northern Communities Infrastructure stream will provide $2 billion to support projects that improve the quality of life in rural and northern communities by responding to rural and northern specific needs. In addition, the $400 million Arctic Energy Fund will be delivered under this stream to support energy security in the territories.

Description	The Rural and Northern Communities Infrastructure stream will support the unique and wide-ranging infrastructure priorities in small, rural and remote communities, including Indigenous communities. These priorities include infrastructure that supports food security, local roads, air and marine infrastructure, renewable energy and enhanced broadband connectivity. In addition, the $400 million Arctic Energy Fund will be delivered under this stream to support energy security in communities in the territories. The Arctic Energy Fund will provide funding for communities to upgrade existing fossil fuel based community energy systems or replace them with renewable energy options, thus contributing to improved reliability, efficiency and pollution reduction.
Funding and Timeframe	The Government of Canada is investing more than $33 billion in federal infrastructure funding through bilateral agreements with provinces and territories under the following four funding streams: • $20.1 billion for public transit; • $9.2 billion for green infrastructure; • $1.3 billion for community, cultural and recreational infrastructure; and • $2 billion for wide-ranging infrastructure needs in rural and northern communities. • In addition, the $400 million Arctic Energy Fund is in place to support energy security in the territories. The jurisdictional allocation of the $2 billion Rural and Northern Communities Infrastructure stream consists of a base amount of $75 million for provinces and $150 million for territories. The remainder is allocated on a per capita basis based on populations of communities under 30,000, using 2016 Statistics Canada Census data. The $400 million Arctic Energy Fund will be distributed among the three territories. The Northwest Territories and Nunavut will each receive $175 million, while Yukon will receive $50 million. Projects will be prioritized by the provinces and territories to submit for consideration of federal funding.

Eligible Recipients	• A municipal or regional government. • A public sector body that is established by or under P/T statute or by regulation, or is wholly-owned by a P, T, municipal or regional government. • When working in partnership with a municipality, a public or not-for-profit institution that delivers post-secondary courses or programs. • Eligible Indigenous recipients will include First Nations communities on-reserve, First Nations communities covered by modern treaty and/or self-government agreements, Inuit communities, Métis settlements as well as recognized Indigenous organizations. • A private sector body, including for-profit organizations and not-for-profit organizations. In the case of for-profit organizations, they will need to work in partnership with one or more of the entities referred to above.
Progress/Results	Agreements were expected to be signed with provinces and territories by Spring 2018. After the signing of bilateral agreements, provinces and territories will then put forward priority projects for federal approval. Projects in each jurisdiction may be put forward until all funding has been allocated.
Contact	Website: infrastructure.gc.ca/plan/about-invest-apropos-eng.html Please contact your province or territory to put your projects forward for consideration.

Low-Carbon Economy Leadership Fund

Capacity Development (Ongoing)
Environment and Climate Change Canada

$1.4 billion in contributions will be available for provincial and territorial actions that generate clean growth and reduce greenhouse gas emissions. One of the target areas for the fund is energy efficiency in residential and commercial buildings.

Description	The Low Carbon Economy Fund will support the implementation of the Pan-Canadian Framework on Clean Growth and Climate Change by leveraging investments in projects that will generate clean growth and reduce carbon pollution toward meeting or exceeding Canada's commitments under the Paris Agreement. The Low Carbon Economy Fund will provide funding over the next five years to make buildings more energy efficient, help industries innovate to reduce emissions, and help the forestry and agriculture sectors increase stored carbon in forests and soils. These and other investments will create jobs for Canadians for years to come. The fund will deliver clean, sustained growth; support innovation; and reduce energy bills—helping Canadians save money and contribute to fighting climate change. The Low Carbon Economy Fund is split into two parts: 1. The Low Carbon Economy Leadership Fund, which was launched on June 15, 2017, will provide $1.4 billion to provinces and territories that have adopted the Pan-Canadian Framework on Clean Growth and Climate Change to help them deliver on leadership commitments to reduce greenhouse gas emissions, including those they outlined in the plan. 2. The remainder of the Low Carbon Economy Fund will be available for the Low Carbon Economy Challenge and for the implementation of the plan. The Low Carbon Economy Challenge will support ambitious projects that can be submitted by all provinces and territories, as well as municipalities, Indigenous governments and organizations, businesses, and not-for-profit organizations. Funded projects will leverage Canadian ingenuity across the country to reduce emissions and generate clean growth, in support of the plan.
Funding and Timeframe	The $1.4 billion available to provinces and territories, under the Low Carbon Economy Leadership Fund, highlights their key role in implementing the plan and addressing climate change by reducing emissions, driving innovation, helping people and businesses save money, and creating jobs and healthier communities. All provinces and territories were allocated a base amount ($30M) plus per-capita funding. Allocations per province are available at the following website: https://www.canada.ca/en/environment-climate-change/news/2017/06/low_carbon_economyfundallocationstoprovincesandterritoriesundert.html

Eligibility	Only provinces and territories who sign on to the Pan-Canadian Framework for Clean Growth and Climate Change are eligible for funding under the Low Carbon Economy Leadership Fund.
Progress/Results	The first round of funding was announced on December 15, 2017, with six provinces: Alberta, British Columbia, Nova Scotia, New Brunswick, Ontario and Quebec. The announcements gave an overview of the project proposals that have been approved to date. Funding for projects in other provinces and territories will be announced as project proposals are finalized and approved. Each province and territory has focused on the best ways to reduce emissions given their unique climates and circumstances. The Low Carbon Economy Leadership Fund will see wide-ranging investments: support for forests, energy-saving renovations at homes, commercial buildings, and universities and colleges, and assistance for small businesses and homeowners to save money on their energy bills. British Columbia will access up to $162 million through the Low Carbon Economy Leadership Fund to invest in projects. Almost $150 million will be used to support Alberta's climate objectives, including investments to restore forests affected by wildfires. In Quebec, over $260 million will help expand actions under the province's 2013-2020 Climate Change Action Plan. New Brunswick will invest its approximately $51-million allocation, in partnership with NB Power, to help New Brunswickers improve the energy efficiency of their homes and businesses. In Nova Scotia, the Low Carbon Economy Leadership Fund will invest approximately $56 million to expand an existing home retrofit partnership with Efficiency Nova Scotia.
Contact	Website: canada.ca/en/environment-climate-change/news/2017/12/low_carbon_economyleadershipfund.html

National Housing Strategy

Incentive /Capacity Development (Ongoing)
Canada Mortgage and Housing Corporation

The National Housing Strategy is a part of a long-term vision to strengthen the middle class, promote sustainable growth for Canadians, and lift more Canadians out of poverty. With an investment of $40 billion over 10 years, the NHS is targeting transformational results for Canadians, including up to a 50% reduction in chronic homelessness, and as many as 530,000 households being taken out of housing need and another almost 400,000 households protected from the expiry of subsidies in social housing. The goal of this historic strategy is to make sure Canadians across the country can access housing that meets their needs and that they can afford.

Description	Housing in the North has been identified as a key priority area under the National Housing Strategy, and initiatives are expected to have positive effects on Northern women and Indigenous households. Funding provided through enhanced support to provinces and territories, along with additional funding for the North, will offset higher costs of building, operating and maintaining housing in Northern and remote communities. It is expected that this approach, in addition to the Federal Community Housing Initiative, will provide predictable and stable funding for housing in the North, help reduce housing need, and permit the construction and operation of additional housing options based on community needs. In addition, housing challenges in Canada's North are also very different than in the rest of the country. Harsh climates, remote locations and higher costs make homes in northern communities more expensive to build, operate and maintain. To offset these high costs, the strategy will invest $300 million to help some 3,000 northern families find affordable homes. The National Housing Strategy also respects the Government of Canada's commitment to a nation-to-nation, Inuit-to-Crown, government-to-government relationship with Indigenous peoples. That is why the National Housing Strategy commits the Government of Canada to fund and continue the significant work currently underway to co-develop distinctions-based housing strategies for First Nations, Inuit and Métis Nation partners. With respect to reducing diesel use in remote communities, the National Housing Strategy has identified energy efficiency as another key priority. The strategy will promote energy efficiency measures for new construction and for renovation. In particular, the federally delivered programs such as the National Co-investment Housing Fund will set minimum requirements for energy efficiency and greenhouse gas reductions. Enabling communities to reduce energy efficiency in their housing can have a direct impact on the approach and types of solutions communities select to reduce diesel.

Funding and Timeframe	The National Housing Strategy will remove 530,000 families from housing need. The following list of programs are part of the National Housing Strategy: 1) **National Housing Co-Investment Fund** The strategy will invest in healthy families, livable communities, and the creation of the next generation of housing in Canada. The priority will be helping people who have the greatest need, like women and children fleeing family violence, seniors, Indigenous peoples, people with disabilities, those dealing with mental health and addiction issues, veterans and young adults. That's why the strategy will invest $15.9 billion in a new National Housing Co-Investment Fund. This funding alone will: • create up to 60,000 new affordable homes • repair another 240,000 affordable and community homes • create or repair at least 7000 shelter spaces for survivors of family violence • create at least 12,000 new affordable units for seniors • create at least 2,400 new affordable units for people with developmental disabilities • attract billions in additional investments from the provinces and territories, municipalities, and non-profit and private-sector partners across the country • To maximize the impact of the National Housing Co-Investment Fund, up to $200 million in surplus federal lands and buildings will be made available to community and affordable housing providers at low or no cost, to encourage the construction of more affordable homes for those who need them the most. It is expected that NHS projects will exceed the minimum requirements for environmental efficiency. The NHS minimum standard will be 25% above the National Energy Code for Buildings (NECB) 2015, and will continue to be 25% above as the code is updated and improved upon through federal, provincial and territorial action. In this way, the NHS will help shift and prepare the housing sector to build to a higher degree of environmental efficiency. Energy efficiency and greenhouse gas emissions reductions will also be encouraged in other programs identified in the National Housing Strategy. However the minimum requirements may vary in order to address the unique challenges and opportunities of these programs. These include: 2) **Investments in Community Housing Resiliency** Community housing has been the backbone of Canada's response to our most urgent housing challenges for more than 60 years. Close to half a million Canadians currently live in some form of community housing. But many of these buildings are aging and in desperate need of repair. To help preserve and renew our social housing stock for future generations, the strategy will invest $4.8 billion to create and maintain a resilient community housing sector.

	This investment includes: • $4.3 billion for a new Canada Community Housing Initiative (to be cost-matched by the provinces and territories) to preserve the existing supply of community-based housing, build a more modern and sustainable community housing system, and keep housing affordable for 330,000 households • $500 million for a new Federal Community Housing Initiative to protect low-income tenants as old operating agreements expire, and continue to offer homes and hope to vulnerable Canadians • In addition, a new Community-Based Tenant Initiative will be created to provide funding to local grassroots organizations that assist people in need. These funds will make sure that people living in community housing will be better able to take part in the decisions that affect their lives, and have their voices heard. 3) **Enhanced Federal–Provincial/Territorial Partnerships** To foster a new level of collaboration between Canada's governments, the Federal government will invest $20.5 billion to help the provinces and territories build more affordable housing, reduce homelessness and create better outcomes for all Canadians. Provinces and territories will be required to cost-match roughly half of this total investment. This includes: • $8.4 billion delivered through existing federal-provincial/territorial agreements • $4.4 billion in federal investments in provincial and territorial housing programs in 2016 and 2017, including new investments from Budget 2016 • $4.3 billion for a new Canada Community Housing Initiative to preserve and expand community housing ($8.6 billion expected cost-matching) • $2 billion for a new Canada Housing Benefit ($4 billion expected cost-matching) • $1.1 billion to help the provinces and territories meet local housing needs and priorities ($2.2 billion expected cost-matching) • $300 million to address the housing needs of families living in the North
Contact	Website: placetocallhome.ca

Northern Responsible Energy Approach for Community Heat and Electricity (REACHE)

Incentive Program (Ongoing)

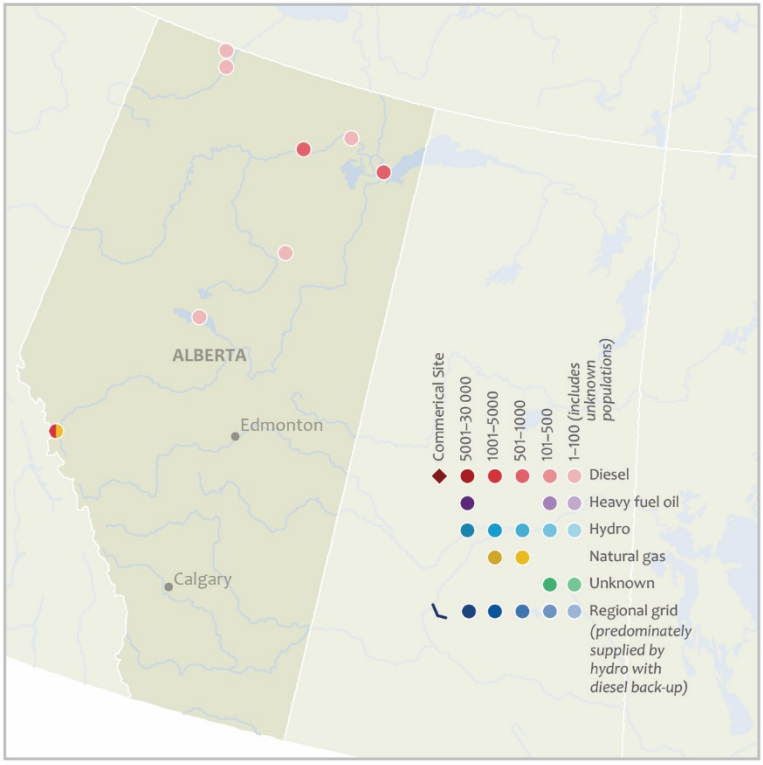
Indigenous Services Canada/Crown-Indigenous Relations and Northern Affairs Canada

$53.5 million is committed over 10 years for the deployment of renewable energy projects in northern communities to reduce their reliance on diesel for heating and electricity through the use of local renewable energy sources and energy efficiency.

Description	The Northern Responsible Energy Approach for Community Heat and Electricity program, also called the Northern REACHE program, funds renewable energy, energy efficiency projects, and related capacity building in : • Yukon • Northwest Territories • Nunavut • Nunavik • Nunatsiavut The program objective is to reduce Northern communities' reliance on diesel for heating and electricity by increasing the use of local renewable energy sources and energy efficiency. This will result in environmental, social and economic benefits and support the development of healthier, more sustainable Northern communities. The Program funds projects in all stages of development, from pre-feasibility to implementation depending on the availability of funds. Eligible projects will focus on proven technologies such as: • solar • wind • energy storage • hydro • biomass heating • LED lighting • residual heat recovery Priority is given to projects that: • have a higher likelihood of being built and becoming operational • include strong Indigenous or community leadership, engagement, or partnerships • The program works closely with regional stakeholders to identify, prioritize and fund projects.
Funding and Timeframe	Budget 2016 announced, starting in 2016-2017: $10.7 million over two years to implement renewable energy projects in off-grid Indigenous and northern communities that rely on diesel and other fossil fuels to generate heat and power. Budget 2017 announced, starting in 2018-2019: $53.5 million over ten years to implement renewable energy projects in off-grid Indigenous and northern communities that rely on diesel and other fossil fuels to generate heat and power.

Eligible Recipients	**Who can apply?** First Nation and Inuit communities; First Nation and Inuit development corporations; municipalities; Indigenous organizations; territorial governments and their organizations; regional governments; not-for-profit organizations; modern land claim organizations; First Nation self-government.
Progress/Results	There is no deadline to apply. Applications are reviewed on an ongoing basis.
Contact	E-mail: aadnc.northernreache.aandc@canada.ca Phone : 1-800-567-9604 Website : aadnc-aandc.gc.ca/eng/1481305379258/1481305405115

Alberta



Initiatives for Clean Energy Technology Integration

Policy, guidance and regulatory landscape for clean technology integration

Resources and initiatives for clean technology integration

Initiatives for Reducing Diesel in Remote Communities

Alberta Indigenous Climate Planning Program

Alberta Indigenous Climate Capacity Program

Alberta Indigenous Community Energy Program

Alberta Indigenous Energy Efficiency (Retrofit) Program

Alberta Indigenous Green Energy Development Program

The Alberta Indigenous Green Employment Program

The Alberta Indigenous Solar Program

Remote Communities Profile

- 7 active remote communities; 1 remote commercial site reliant on diesel as main power source.
- Population of active remote communities in Alberta approx. 6131

Energy Profile

Service Provider: ATCO Electric

~ 6809 kW of total diesel generating capacity

~ 10 930 862 MWh/year of total annual diesel generation

~ 4 245 420 litres of diesel consumed in 2016

- The community of Fort Chipewyan generated 10 930 836 MWh/year in diesel power; consumed 2 881 543 litres of diesel in 2016.
- The community of Jasper, AB relies on Natural Gas as the main power source. Other remote communities are diesel reliant.[2]

[2] Remote Communities Database (2018)

Policy, Guidance and Regulatory Landscape for Clean Technology Integration in Alberta

Alberta Innovation and Technology Framework	Serves as the overarching guide for the investment of funds into climate change-related innovation and clean technology.
Alberta Indigenous Climate Leadership	The initiative was developed in collaboration with Indigenous peoples and includes programs and funding that will help communities, in part; develop community-based (renewable) energy supply and large-scale energy projects. A series of grant funding programs are ongoing to support this initiative.
Climate Leadership Plan: Off Diesel Support for Northern and Remote Indigenous Communities	The Alberta Climate Change Office (ACCO) is working with Alberta Energy, Alberta Indigenous Relations and ATCO Electric to develop options to enable the reduction of diesel in remote and northern, predominantly Indigenous communities by implementing cleaner sources of electricity.
Energy Efficiency Alberta	An agency that delivers energy efficiency and community energy programs to Albertans including raising awareness among energy consumers of energy use as well as the associated economic and environmental consequences. EEA promotes, designs and delivers programs as well as carry out other activities related to energy efficiency, energy conservation and the development of micro-generation and small scale energy systems in Alberta.
Micro-Generation Regulation	Allows Albertans using renewable or alternative energy, to sources generate their own environmentally friendly electricity to receive credit from any excess electricity they send into the electricity grid.
Renewable Electricity Program	Alberta will add 5,000 megawatts of renewable energy capacity by 2030 as part of the Climate Leadership Plan to replace coal-fired electricity generation with cleaner energy sources.

Alberta – Resources and Initiatives for Clean Technology Integration

Title	Type/Status/Description	Funding/Timeframe	Eligibility	Contact Information
Alberta Municipal Solar Program (AMSP)	*Incentive Program* (Ongoing) The Alberta Municipal Solar Program (AMSP) provides financial incentives to Alberta municipalities who install grid-connected solar photovoltaics (PV) on municipal facilities or land and complete public engagement for the project.	The deadline for submission of AMSP applications was April 30, 2018. Solar PV systems must be greater than or equal to 2 kW in installation capacity. Funding is available on a first come, first served basis. Municipalities are eligible to submit multiple applications.	The program is open to municipalities within the Province of Alberta and non-profit, community-related organizations.	E-mail contact@mccac.ca Website mccac.ca/programs/AMSP
Municipal Sustainability Initiative	*Incentive Program* (Ongoing) The Municipal Sustainability Initiative (MSI) helps support local infrastructure priorities and builds strong, safe and resilient communities. A wide variety of infrastructure projects are eligible under the MSI, including the installation of clean technologies (e.g. solar panels, geothermal) in building retrofits or new buildings. Municipally-owned energy recovery or district energy projects could also be eligible under this program.	MSI funding is based on municipal populations, education property tax requisitions and kilometres of local roads and includes base funding for all municipalities and Sustainable Investment funding for municipalities with limited local assessment bases.	All municipalities in Alberta, Metis settlements and the Townsite of Redwood Meadows Administration Society are eligible for funding under the MSI based on the terms set out in their long-term funding agreement. For a full list of featured projects supported by MSI funding, please visit the MSI website.	E-mail MSIOaccess@gov.ab.ca Phone 1-780-644-2413 Website municipalaffairs.alberta.ca/msi
On-Farm Solar Photovoltaics Program	*Incentive Program* (Ongoing) The On-Farm Solar Photovoltaics program provides funding towards solar photovoltaics on Alberta farms. This enables producers to conserve non-renewable fossil fuels and reduce carbon	Less than 100 kW: $0.75/W to maximum 35% eligible cost share. 100.01- 150 kW: $0.56/W to maximum 27% eligible cost share	Alberta residents with a Distribution Rate Class of Farm, Irrigation, Grain Drying, or equivalent.	E-mail af.farmsolarpvprogram@gov.ab.ca Website www1.agric.gov.ab.ca/general/progserv.nsf/all/pgmsrv464

	emissions, ultimately reducing the environmental footprint of Alberta's agriculture industry.			
Renewable Electricity Program	*Incentive Program* (Ongoing) Alberta will add 5,000 megawatts of renewable energy capacity by 2030 as part of the Climate Leadership Plan to replace coal-fired electricity generation with cleaner energy sources.	Successful projects will be privately funded and supported by reinvesting a portion of carbon revenues from large industrial emitters. The next two rounds of competition opened on March 29, 2018. The Renewable Electricity Support Agreements for these rounds are to be awarded by end of December 2018.		E-mail rep@aeso.ca Website alberta.ca/renewable-electricity-program.aspx
Residential and Commercial Solar Program	*Incentive Program* (Ongoing) The Residential and Commercial Solar Program provides a rebate designed to reduce the barrier of high upfront capital costs and encourage uptake of solar photovoltaic systems and micro-scale renewable energy across the province.	The program provides a rebate of $0.75/watt to residential, commercial, and non-profit systems. The maximum grant amount is the lesser of 30% of eligible system cost or $10,000 for residential systems. The maximum grant amount is the lesser of 25% of the eligible system cost or $500,000 for commercial systems. The maximum grant amount is the lesser of 25% of the eligible system cost or $500,000 for non-profit systems. Funding of $36 million (plus administrative costs) Is available until March 2020. Funds are available on a first-come, first-served basis. $21 million toward the residential sector and $15 million toward the commercial and non-profit sector.	Homeowners, business facilities in-province, non-profit facilities that qualify for AMSP. Expansions to systems installed prior to April 15, 2017 are encouraged, however only the expansion portion of the system is eligible for the RCSP.	E-mail solaralberta@inclimesolutions.ca Phone 1-587-287-1903 Website solar.efficiencyalberta.ca

Alberta Indigenous Climate Planning Program (AICPP)

Capacity Development (Ongoing)

Description	The Alberta Indigenous Climate Planning Program (AICPP) helps Indigenous communities establish an understanding of their energy conservation opportunities and set priorities to improve energy efficiency, reducing greenhouse gas (GHG) emissions and support local economic development. Funds two project types: 1) Community Energy Plans; supporting baseline studies and plans regarding energy use. 2) Clean Energy Opportunities Assessments; developing community profiles and feasibility assessments for types of clean energy projects.
Funding and Timeframe	Opened for proposals on June 29th 2017, and will continue until funding is exhausted. Can provide 100% of expenses to a maximum of $100,000 per project.
Eligibility	Available for: • First Nation communities, Metis Nation of Alberta, Metis Settlements, and Aseniwuche Winewak Nation. • Applicants must be in compliance with the terms and conditions of any previous Indigenous Relations funding. • Applicant communities must be located in Alberta. The following costs are eligible: • Expenses related to contracting a professional consulting firm to conduct a Community Energy Plan or Clean Energy Opportunity Assessment; • Expenses incurred related to meetings between the community or organization and the proposed contractor before project start-up, community engagement and report back sessions; • Project management or administration costs incurred during the project; • Consultant costs must be limited to 50 per cent of the total project costs, and the project description must demonstrate how the consultant will engage community members to develop capacity within the community.

	The following costs are ineligible: • In-kind expenses, however, these are to be included in the budget; • Payments for services normally provided without charge (i.e., honoraria for a community service); • Expenses incurred by the Indigenous community for permanently-employed staff.
Progress/Results	The AICPP operates on a rolling intake system, and submissions will be assessed and approved on an ongoing basis, until funds are fully exhausted. The call for submissions opened on June 29, 2017.
Contact	E-mail : IR.climate@gov.ab.ca Phone : 1-780-427-8407 Website : indigenous.alberta.ca/AICPP.cfm

Alberta Indigenous Climate Capacity Program (AICCP)

Capacity Development (Ongoing)

Description	The Alberta Indigenous Climate Capacity Program (AICCP) is grant program that builds technical and leadership capacity within Indigenous communities and organizations in order to: • Increase climate leadership knowledge within Indigenous communities and organizations. • Prepare Indigenous communities for green energy economic development opportunities by increasing awareness of climate leadership and the low-carbon economy. • Increase awareness of how local actions can be taken which will decrease community and organization greenhouse gas emissions.
Funding and Timeframe	The AICCP can provide 100 per cent of the eligible expenses per project. An AICCP application must include all projects that the community or organization is applying. The maximum amount of funding available per application is $100,000. The call for submissions will open June 29, 2017 and will remain open for submission until program funding is exhausted.
Eligibility	Activities eligible for funding: • Climate Leadership Coordinators (Treaty Organizations, Tribal Councils, Metis Nation of Alberta, Metis Settlement General Council). • Indigenous climate leadership training sessions. • Elder and youth climate awareness programs. • Train-the-trainer sessions intended to increase local capacity in climate leadership program delivery.
Progress/Results	The Government of Alberta will review grant applications on a rolling intake basis until program funds are exhausted.
Contact	E-mail : IR.climatecapacity@gov.ab.ca Phone : 1-780-427-8407 Website : indigenous.alberta.ca/AICCP.cfm

Alberta Indigenous Community Energy Program (AICEP)

Incentive Program (Ongoing)

Description	The Alberta Indigenous Community Energy Program (AICEP) is a program that provides tools and funding to help Indigenous communities and organizations understand how energy is used in their buildings and identify opportunities to save energy and financial resources. A detailed energy assessment will support community decision-making, estimate energy savings, and greenhouse gas reductions if building retrofits are completed in the future. This baseline analysis prior to completing energy efficiency retrofits has many benefits, including: • Accurately assessing the efficiency of existing buildings; • Assessing potential energy and cost savings if retrofits are completed • Making informed decisions on building retrofits • Helping Indigenous communities maintain and improve building performance and operations.
Funding and Timeframe	AICEP can provide 100% of the eligible expenses (to a maximum of $200,000) per project. The call for submissions opened June 29, 2017 and will remain open for submission until program funding is exhausted.
Eligibility	First Nation communities, Metis Nation of Alberta Metis Settlements, and the Aseniwuche Winewak Nation and Indigenous organizations, including Friendship Centres, Tribal Councils and Indigenous community-owned businesses. Applicants must be in compliance with the terms and conditions of any previous Indigenous Relations funding. Applicant communities must be located in the Province of Alberta. Projects eligible for funding - AICEP provides funding for detailed energy assessments for Indigenous community-owned buildings as follows: Office and administrative buildings; Fire halls and police stations; Elders' Centres; Community centres (e.g. libraries, museums, community halls, etc.); Arenas and curling rinks; Aquatic centres and swimming pools; Multiplexes; Dry sport centres; Public works buildings; Buildings that house community-owned businesses; Community-owned residential buildings. Buildings must be owned and managed by the community itself or by a community-owned business or organization.
Progress/Results	The Government of Alberta will review grant applications on a rolling intake basis until program funds are exhausted.
Contact	E-mail : IR.climate@gov.ab.ca Phone : 1-780-427-8407 Website: indigenous.alberta.ca/AICEP.cfm

Alberta Indigenous Energy Efficiency (Retrofit) Program (AIEERP)

Incentive Program (Ongoing)

Description	The Alberta Indigenous Energy Efficiency (Retrofit) Program (AIEERP) is a grant program that provides funding to improve the energy efficiency of Indigenous community and Indigenous organization-owned buildings. Projects will reduce greenhouse gas (GHG) emissions, providing energy savings to communities. This grant program will: • Support Indigenous communities and organizations to upgrade construction of new building that are energy efficient; • Support Indigenous communities and organizations to improve energy efficiency of existing community and organization owned buildings; • Contribute to GHG reductions or avoidance.
Funding and Timeframe	Opened for proposals on June 29th 2017 and will continue until funding is exhausted. Can provide 100 per cent of the eligible expenses per project.
Eligibility	Eligibility • First Nation communities, Metis Nation of Alberta, Metis Settlements, Aseniwuche Winewak Nation, Indigenous organizations including Friendship Centres, Tribal Councils and Indigenous community-owned businesses. • Applicants must be in compliance with the terms and conditions of any previous Alberta Indigenous Relations funding. • Applicants must be located in the Province of Alberta. Funding for energy efficient retrofits to existing buildings and energy efficiency upgrade to new buildings. The buildings must be owned by an Indigenous community or Indigenous organization in Alberta.
Progress/Results	Once the Application is received, the following process is implemented: • An assessment will be conducted by Indigenous Relations to ensure the application and other documents contain the required information. • An assessment will be conducted by a third party independent technical assessor to determine the technical viability of the project. • An assessment will confirm applicant eligibility and suitability with the AIEERP.
Contact	E-mail : IR.ClimateCapacity@gov.ab.ca Phone : 1-780-427-8407 Website : indigenous.alberta.ca/AIEERP.cfm

Alberta Indigenous Green Energy Development Program (AIGEDP)

Incentive Program (Ongoing)

Description	The Alberta Indigenous Green Energy Development Program (AIGEDP) focuses on the development of commercial-scale, renewable-energy projects that will lead to significant reductions in Alberta's overall greenhouse gas (GHG) emissions. The program supports two funding streams: Project Development: To support all stages of renewable-energy projects development from pre-feasibility assessments, technical feasibility studies and business plans. Project Implementation: To support commercial-scale renewable energy projects owned by eligible Indigenous organization or communities.
Funding and Timeframe	Opened for proposals on June 29th 2017 and will continue until funding is exhausted. Can provide 100% to a maximum of $60,000 prefeasibility work; 550,000 for feasibility studies, technical work and business plans. 100% Stackable.
Eligibility	Activities eligible for funding: • Expenses related to feasibility studies, technical assessments and regulatory requirements, including business plans; • Salary or contract costs associated with the development of the renewable energy project for a project manager with a demonstrated track record; • Capital purchases required for implementation of the project, including solar panels, wind turbines and technical equipment that is required to operate and store the renewable energy project; and • Travel expenses for project participants or personnel.
Progress/Results	The Government of Alberta will review grant applications on a rolling intake basis until program funds are exhausted.
Contact	E-mail : IR.climate@gov.ab.ca Phone : 1-780-427-8407 Website : indigenous.alberta.ca/AIGEDP.cfm

Alberta Indigenous Green Employment Program (AIGEP)

Incentive Program (Ongoing)

Description	The Alberta Indigenous Green Employment Program (AIGEP) provides grant funding to the Alberta Aboriginal Skills and Employment Training Strategy (ASETS) agreement holders, whose members will train Indigenous people for employment in the green economy. Green employment is employment that focuses on building, maintaining or participating in innovative ways to reduce greenhouse gas (GHG) emissions. As Alberta transitions to a lower carbon economy, this type of employment will be increasingly important. The program supports employment and training projects that assist in: • increasing Indigenous peoples participation in Climate Leadership initiatives that reduce community greenhouse gas (GHG) emissions; • the transition to a lower carbon economy; • promoting low carbon economy employment opportunities to Indigenous people.
Funding and Timeframe	Opened for proposals on June 29th 2017, and will continue until funding is exhausted. $2M will be equally distributed amongst the participating Alberta ASETS agreement holders.
Eligibility	Available to: • ASETS agreement holders • Applicants must be in compliance with the terms and conditions of any previous Alberta Indigenous Relations funding • Applicants must be located in the Province of Alberta. Projects will be assessed on how the training will lead to employment in jobs that lead to the reduction of GHG. A minimum of 75 per cent of total funds requested from Indigenous Relations is to be used for direct training costs.
Progress/Results	The Government of Alberta will review grant applications on a rolling intake basis until program funds are exhausted.
Contact	E-mail : IR.climatecapacity@gov.ab.ca Phone : 1-780-427-8407 Website : indigenous.alberta.ca/AIGEP.cfm

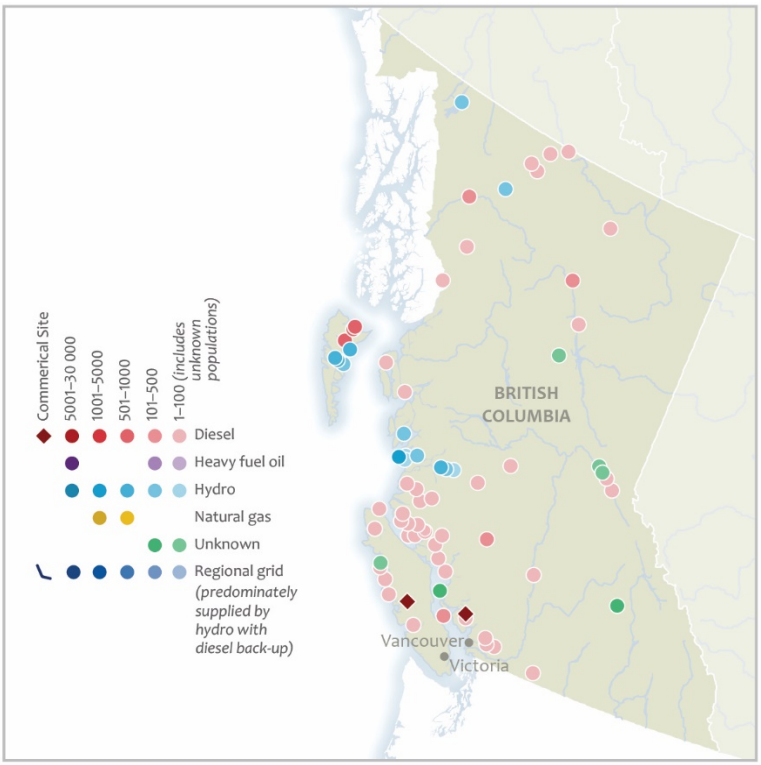
Alberta Indigenous Solar Program (AISP)

Incentive Program (Ongoing)

Description	The Alberta Indigenous Solar Program (AISP) is a program that provides grants to Alberta Indigenous communities or Indigenous organization to install solar photovoltaic (PV) systems on facilities owned by the community or organization. The program supports solar power projects that assist in: • increasing Indigenous participation in Climate Leadership initiatives that reduce community greenhouse gas (GHG) emissions; • the transition to a lower carbon economy; • creating more sustainable community energy generation; • equipping Indigenous communities with information to support them in investing in solar energy infrastructure.
Funding and Timeframe	The call for submissions opened on June 29, 2017 and will remain open for submission until program funding is exhausted. AISP provides funding for up to 80% of eligible expenses up to a maximum of $200,000 per project. Applicants can access other non-Government of Alberta funded programs to cover the remaining 20% of the project costs. The maximum funding stacking level is 100% of eligible costs. All funding sources should be clearly identified in the project budget.
Eligibility	Available to: • First Nation communities, Metis Settlements Metis Nation of Alberta and the Aseniwuche Winewak Nation • Indigenous-led organizations, including Friendship Centres and Indigenous community-owned businesses • Applicants must be in compliance with the terms and conditions of any previous Alberta Indigenous Relations funding • Applicant communities or organizations must be located in the Province of Alberta AISP grant funding supports projects that: • Are compliant with the Government of Alberta's Micro-generation Regulation 27/2008 (for grid-connected projects) • Are greater than or equal to two kilowatts (kW DC PV array capacity) and less than or equal to one megawatt (MW DC PV array capacity) in installation capacity

	• For projects between one to five megawatts in capacity, communities or organizations are encouraged to apply for the Alberta Indigenous Green Energy Development Program (AIGEDP). • Have a cost under $ 3.25 per watt. This requirement may be waved in exceptional situations on a case-by-case basis • Are completed within one (1) year of the signing of the grant application • Are new installations, where "new" is defined as installations that are completed and operational (energized) after the Indigenous Relations Climate Leadership grant application is approved.
Progress/Results	The Government of Alberta will review grant applications on a rolling intake basis until program funds are exhausted.
Contact	E-mail : IR.climate@gov.ab.ca Phone : 1-780-427-8407 Website : indigenous.alberta.ca/AISP.cfm

British Columbia



Initiatives for Clean Energy Technology Integration
Policy, guidance and regulatory landscape for clean technology integration
Resources and initiatives for clean technology integration
Initiatives for Reducing Diesel in Remote Communities
British Columbia Indigenous Clean Energy Initiative (BCICEI) **(Western Economic Diversification Canada)**
BC-SDTC Partnership in Clean Energy Technology
Community Energy Leadership Program (CELP)
First Nations Clean Energy Business Fund (FNCEBF)

Remote Communities Profile
• ~ 71 remote communities, 4 active remote commercial sites • Population of active remote communities in B.C. at least ~ 10 400
Energy Profile
Service Providers: BC Hydro, Independent, ATCO, Yukon Energy Corp. Main power source of remote communities in B.C. vary, ranging from diesel, hydro, and regional grid connection. • ~ 51 remote communities; 4 commercial sites rely on diesel as the main power source • ~ 14 remote communities rely on hydro, but have diesel stations for back up and peak loads • ~ 75 rural (on-grid) communities rely on fossil fuels for heat[3]

[3] Remote Communities Database (2018)

Policy, Guidance and Regulatory Landscape for Clean Technology Integration in British Columbia

BC Climate Action Toolkit	The BC Climate Action Toolkit is a tool for knowledge sharing and collaboration. It provides the latest news, best practices, practical advice, information, and strategic guidance to help BC local governments successfully reduce greenhouse gas emissions and, at the same time, strengthen their communities.
BC First Nations Clean Energy Toolkit	This toolkit is designed to assist First Nations in understanding the kinds of clean/renewable energy there are, how to begin looking into doing a clean energy project, pre-feasibility, feasibility, developing, financing, relationship building, opportunities, and where to find resources.
Clean Energy Act	Creates the legislative framework for increased electricity self-sufficiency and specific energy objectives and clean initiatives.
Integrated Resource Plan	The Integrated Resource Plan (IRP) outlines B.C.'s long-term plan to meet future electricity demand through conservation, generation and transmission, and through upgrades to existing infrastructure.
Remote Communities Regulations	The Remote Communities Regulation creates an obligation for BC Hydro to serve eleven remote communities listed in the Schedule to the Regulation.
Self-Assessment for First Nations Communities	This toolkit has been prepared for the purpose of guiding First Nations communities in assessing their resource potential to generate electricity.
Self-Assessment for Local Governments	This toolkit has been prepared for the purpose of guiding local governments in assessing their resource potential to generate electricity.

British Columbia – Resources and Initiatives for Clean Technology Integration

Title	Type/Status/Description	Funding/Timeframe	Eligibility	Contact Information
First Nations Home EnergySave	*Incentive Program* (Ongoing) The Fraser Basin Council is working with First Nations communities and support organizations to reduce energy use, share success stories, and build local capacity and economic development through the Home EnergySave program. Target of the program is to reduce home energy, including heating-related, costs and improve infrastructure in First Nations communities (including remote communities) by completing efficiency upgrades through building energy retrofits projects.	The program has available $220,000 from 2016 to 2019.	Communities associated with the Fraser Basin Council. See Fraser Basin Council website for details.	Website fraserbasin.bc.ca/First_Nations_Home_EnergySave.html **Jim Vanderwal**, Fraser Basin Council E-mail: jvanderwal@fraserbasin.bc.ca Phone: +1-604-897-5350
Innovation Clean Energy Fund (ICE)	*Incentive Program* (Ongoing) The ICE Fund is a Special Account, funded through a levy on certain energy sales, designed to support the Province's energy, economic, environmental and greenhouse gas reduction priorities, and to advance B.C.'s clean energy sector. The Community Energy Leadership Program (CELP) is a program funded by the ICE Fund.	Since 2008, the ICE Fund has committed approximately $97 million to support pre-commercial clean energy technology projects, clean energy vehicles, research and development, and energy efficiency programs. Under its current three year spending plan for 2018/19 to 2020/21, the ICE Fund supports several programs including the CELP.	Successful ICE Fund partnerships have included universities, First Nations, municipalities and many emerging clean tech companies across British Columbia. Technology demonstrations have included bioenergy, solar, ocean tidal, geo-exchange, desalination, energy management, smart grid and waste-to-energy.	Website www2.gov.bc.ca/gov/content/industry/electricity-alternative-energy/innovative-clean-energy-solutions/innovative-clean-energy-ice-fund

British Columbia Indigenous Clean Energy Initiative (BCICEI)

Western Economic Diversification Canada

Incentive Program (Ongoing)

BCICEI supports Indigenous communities pursuing clean energy and energy efficiency projects in British Columbia through $4.2 million in funding over three years, directed at early stage projects.

Description	The BC Indigenous Clean Energy Initiative (BCICEI) provides early support to develop Indigenous communities' capacity and readiness to advance clean energy and energy efficiency projects in BC. The initiative is delivered by Western Economic Diversification Canada in partnership with New Relationship Trust, an independent, not-for-profit organization dedicated to strengthening First Nations in BC. Embracing a nation-to-nation approach, BCICEI is informed through an Advisory Committee comprised of Indigenous leaders, representatives of federal and provincial government, as well as industry stakeholders. In addition to supporting capacity building and development of local clean energy projects in Indigenous communities, BCICEI facilitates pathfinding towards private sector engagement and partnerships on clean energy, and helps leverage new capital investments.
Funding and Timeframe	BCICEI funding was established through the Strategic Partnerships Initiative (SPI) to enable horizontal coordination of federal investments for Indigenous economic development. A total of $4.2 million was committed over 3 years. The initiative commenced April 1, 2017 and will run to March 31, 2019.
Eligibility	Eligible recipients under BCICEI include: a) Indigenous communities, including self-governing First Nations; b) Tribal Councils or groups of two or more First Nations; c) Indigenous for profit and not-for-profit corporations, partnerships, associations, co-operatives, and institutions, which are majority owned and controlled by Indigenous communities. BCICEI funds project development phases that typically precede project financing or investment including: feasibility and site selection; environmental review and permitting; project design and engineering; and demand side management. The proposed project must be located in BC.

Progress/Results	Widespread demand for funding and a range of project proposals received to date have confirmed strong interest in clean energy among BC Indigenous communities. A total of 117 proposals have been received over three years, including numerous applications for remote, off-grid, or diesel-dependent communities. Through over $2 million in BCICEI funding invested since 2016, the initiative has supported 17 communities, further leveraging over $23 million in funding through other federal and provincial programs, as well as private investments. These communities are pursuing micro-hydro, solar, geothermal, bioenergy, and innovative demand-side management projects, several of which have already been completed and are in operation. Projects supported under BCICEI contribute to business development, training and job creation, revenue generation, and revenue sharing opportunities. 2018 project funding decisions were made in June.
Contact	Website newrelationshiptrust.ca/initiatives/bcicei/ Email Julie Compton, Economic Policy Analyst, WD-BC julie.compton@canada.ca Trevor Todd, Manager, Business Development and Trade, WD-BC trevor.todd@canada.ca

BC-SDTC Partnership in Clean Energy Technology

Incentive Program (Ongoing)

Description	Under the Pan-Canadian Framework on Clean Growth and Climate Change, British Columbia and the Government of Canada are working together to spur the development and commercialization of new technologies that will reduce GHG emissions and create jobs for Canadians. The parties will conduct a joint call over a three-year continuous intake period to seek out clean-energy projects and technologies that will mitigate or avoid provincial greenhouse gas emissions, including prototype deployment, field testing and commercial-scale demonstration projects.
Funding and Timeframe	$40 million will be available over the course of 3 years. The funding available through this joint fund will leverage federal, provincial and private sector investments. The $20-million provincial contribution comes from the B.C.'s Innovative Clean Energy (ICE) Fund. The federal contribution will be provided through the SD Tech Fund, managed by Sustainable Development Technology Canada (SDTC). Projects that have received ICE or SDTC funding are not eligible, unless the proposal advances previous work.
Eligibility	Projects must take place in British Columbia and must demonstrate how the proposed project will result in GHG reductions, commercialization, and economic growth in British Columbia and Canada. Private sector entities are required to develop consortium partnerships with at least one non-related partner entity, which may include potential customers, technology co-developers and academic institutions.
Progress/Results	The program is accepting applications on a rolling basis from April 10, 2017 to March 31, 2020.
Contact	E-mail: applications@sdtc.ca; icefund@gov.bc.ca Phone: 1-613-234-6313 Website: www2.gov.bc.ca/gov/content/industry/electricity-alternative-energy/innovative-clean-energy-solutions/bc-sdtc-partnership-in-clean-energy-technology

Community Energy Leadership Program (CELP)

Incentive Program (Ongoing)

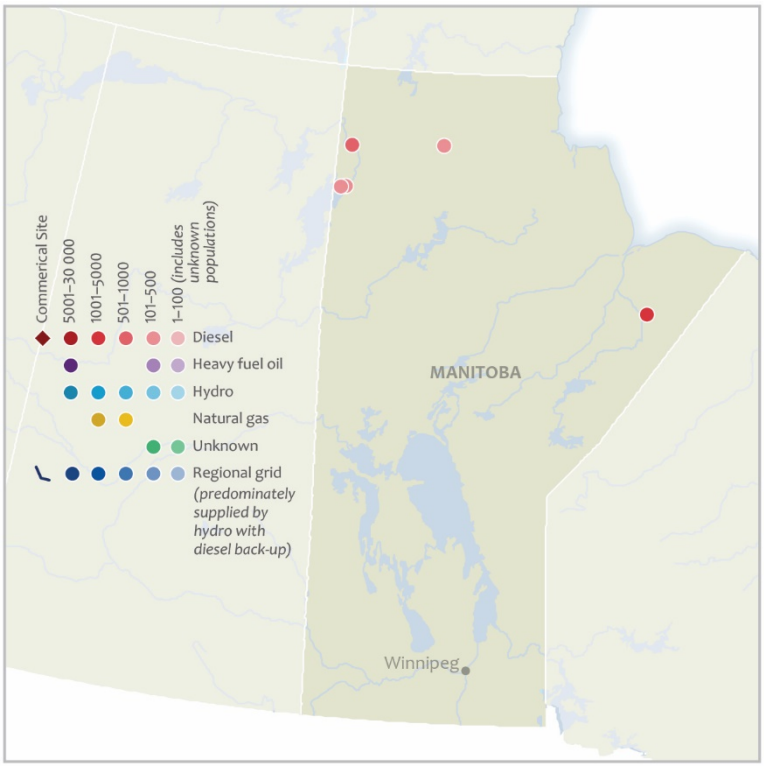
Description	The Community Energy Leadership Program (CELP) was established in 2015 to support local government and First Nations (including remote communities) investments in energy efficiency and clean energy projects. The main goals of the program are to reduce greenhouse gas emissions, increase energy efficiency, stimulate economic activity in the clean energy sector, and support vibrant and resilient communities. CELP Funding will: • Support new community energy partnerships, encouraging investments in small-scale community-owned energy generation from clean or renewable resources such as biomass, biogas, geothermal heat, hydro, solar, ocean or wind. • Encourage energy efficiency through retrofits of community-owned buildings and related infrastructure. • Promote community projects and partnerships with industry that advance this growing sector of the provincial economy. Funding for the CELP was established through the B.C. Innovative Clean Energy (ICE) Fund.
Funding and Timeframe	The CELP administered $1.3 million over 3 years under its first three funding intakes. **FY 2015/16** $250 000 — **FY 2016/17** $500 000 — **FY 2017/18** $550 000
Eligibility	Local governments and/or First Nations are eligible for this program.
Progress/Results	CELP has provided $1.3 million in funding to 20 First Nations and local government projects over three funding intakes with a total project cost of $14.7 million. Six of these projects were in remote communities. Additional funding has been allocated to the program. CELP is currently implementing projects funded under its third funding intake and is completing a program evaluation before launching its next funding intake.
Contact	E-mail: CELP@gov.bc.ca Website: gov.bc.ca/communityenergyleadershipprogram

First Nations Clean Energy Business Fund (FNCEBF)

Capacity Development (Ongoing)

Description	Capacity and Equity Funding for clean energy projects with First Nations and Revenue sharing Agreements aiming to reduce diesel reliance. Up to $500 000 for clean-energy projects, $150 000 for energy efficiency, and up to $50 000 for capacity funding/feasibility studies. Run by the Ministry of Indigenous Relations and Reconciliation.
Funding and Timeframe	$5 million was initially available; an additional $1 million made available in 2014 totalling $6 million. $2.1 million added in 2017 for another 3 years. Stacking is allowed: Preference given to proponents who can match with other funding. Provincial grants to improve energy efficiency (up to $150 000) can be stacked.
Eligibility	First Nation Band or governing body only; $50 000 for capacity development per proponent; $500 000 limit under equity category for clean energy projects per proponent. Equity funding is "last in", needing projects to be operational.
Progress/Results	The *Clean Energy Act* enabled the creation of the First Nation Clean Energy Business Fund. The Ministry of Indigenous Relations and Reconciliation is responsible for administering the fund and uses expertise across provincial government to assess applications.
Contact	Applications must be submitted to Lindsay Wood, Senior Project Advisor, prior to the last day of the month of each intake period (January and May) to be considered for funding for that specified period. Note: Application processing is completed up to 90 business days after intake deadlines. E-mail: Lindsay.Wood@gov.bc.ca Phone +1- 250-356-8759 (toll free) 1-800-880-1022 Website: www2.gov.bc.ca/gov/content/environment/natural-resource-stewardship/consulting-with-first-nations/first-nations-clean-energy-business-fund

Manitoba



Initiatives for Clean Energy Technology Integration
Policy, guidance and regulatory landscape for clean technology integration
Resources and initiatives for clean technology integration
Initiatives for Reducing Diesel in Remote Communities
Pan-Canadian Task Force on Remote Diesel Communities

Remote Communities Profile
• 5 active remote communities powered by 4 micro-grids • Population of remote communities in Manitoba approx. 3545

Energy Profile
Service Provider: Manitoba Hydro ~ 12 985 kW of total diesel generating capacity ~ 15 402 MWh/year of total annual diesel generation ~ 4 479 000 litres of diesel consumed in 2016 Main power source for all remote communities in Manitoba is diesel. None of Manitoba's remote communities is supplemented by renewable or other sources of energy. Heating oil is the most common heating fuel used in all of Manitoba's remote communities.[4]

[4] Remote Communities Database (2018)

Policy, Guidance and Regulatory Landscape for Clean Technology Integration in Manitoba

Manitoba Climate and Green Plan	Manitoba's Climate and Green Plan put forward a vision for the province to become the cleanest, greenest, and most climate resilient jurisdiction in Canada. Manitoba identified Off-Grid Communities as a possible initiative under the provincial Plan, and is working with the communities, the electric utility, the federal government and the private sector to explore options for replacing diesel generations with clean and renewable sources of electrical energy. Manitoba supports and promotes clean technology and innovation in all sectors to address the economic, environmental and social challenges.
Pan-Canadian Task Force on Remote Diesel Communities	As Chair of the Task Force, Manitoba hosted the Pan-Canadian Summit on Reducing Diesel in Remote Communities in January 2017. The Summit brought together government officials, local and indigenous representatives of remote communities, industry solution providers of renewable energy alternatives, and other stakeholders from across Canada to consult on reducing diesel consumption in remote communities. The Summit brought attention on the energy needs of remote communities across the country.

Manitoba – Resources and Initiatives for Clean Technology Integration

Title	Type/Status/Description	Funding/Timeframe	Eligibility	Contact Information
Commercialization Support for Business Program	*Incentive Program* (Ongoing) The Commercialization Support for Business Program offers a comprehensive suite of financial assistance and services across the business lifecycle. The Program targets entrepreneurs and businesses seeking to start-up, expand or modernize a business in Manitoba. The program has three streams: 1. Product Development 2. Commercialization 3. Market Development	The program provides 50% cost shared funding to a maximum of $250,000 depending on the funding stream. Stream 1 – Product Development (Max up to $50,000) – Funding targets market validation studies. Stream 2 – Commercialization (Max up to $250,000) – Funding targets ventures moving from prototype to a market-ready product. Stream 3 – Market Development (Max up to $30,000) – Funding targets ventures who engage in activities that will enable them to enter new markets outside of Manitoba.	Eligible recipients are: • Individuals (sole proprietors) • Business Entities – For-profit Canadian Controlled Private Corporations, business co-operatives, partnerships, joint-ventures (both corporate or individual). At least 25% of the full-time equivalent employees of the corporation and its affiliates reside in Manitoba.	Website gov.mb.ca/jec/busdev/financial/csb/index.html
Community Geothermal Program	*Capacity Building* (Ongoing) Indigenous community members are engaged to become active participants in reducing their energy consumption. This is achieved through training local businesses on how to install and maintain geothermal heat pump systems while providing eligible homeowners financing through Pay-As-You-Save Financing.		A program specialist works with the Band Housing Manager from each Indigenous community to identify qualifying homes.	Website hydro.mb.ca/powersmart/indigenous_communities.shtml E-mail powersmartexpert@hydro.mb.ca Phone 204-480-5900 (toll free) 1-888-624-9376

Green Energy Equipment Tax Credit	*Incentive Program* (Ongoing) This Manitoba tax credit supports eligible equipment installations which are used to supply renewable energy.	Tax credit can be applied to the eligible installation of: • geothermal heat pump systems; • solar thermal energy systems; and • biomass fuel energy equipment, which is installed in Manitoba and used in a business.	Requirements include, but are not limited to, usage (e.g. heating requirements) as well as equipment and installation requirements Subject to conditions including where other government assistance is received for purchasing or installing the equipment, this amount will reduce the potential support available.	Website gov.mb.ca/finance/tao/green.html manitobaenergy.ca Phone 204-948-2115 (toll free) 1-800-782-0771
Manitoba Industrial Opportunities Program (MIOP)	*Incentive Program* (Ongoing) Under the Manitoba Industrial Opportunities Program (MIOP) the government provides term loans to assist businesses to expand in Manitoba. The loans are reserved for opportunities that create significant strategic economic benefit, e.g. job creation, sectoral development, etc. The loans are offered on commercial terms, however, the terms can be quite flexible if the opportunity provides significant economic development.	Loans typically are in excess of $500,000.	Businesses that can demonstrate significant strategic economic benefit may apply.	Website gov.mb.ca/jec/busdev/financial/miop/index.html Phone 204-945-8468 (toll-free) 1-800-282-8069

Power Smart Pay-As-You-Save (PAYS) Financing	*Incentive Program* (Ongoing) The Pay-As You-Save (PAYS) is a financing option that allows Manitoba Hydro's customers to invest in qualified energy efficiency upgrades which are repaid using the savings on the building owner's utility bill.	The maximum financing term depends on the upgrade. If multiple upgrades are financed at the same time, the maximum finance term for all upgrades will be based on the upgrade with the longest term. The maximum financing term for qualified upgrades are as follows: • Residential space heating equipment: maximum 20 year term; • Insulation: maximum 25 year term; • Drain water heat recovery systems: maximum 25 year term.	The applicant must be the owner of the home in which energy improvements are made and have an active Manitoba Hydro account in good standing. The home must be detached or semi-detached. Mobile homes on permanent foundations with a permanent water supply are also eligible. Upgrades must be made to levels recommended by Manitoba Hydro.	Website hydro.mb.ca/your_home/power_smart/pays/index.shtml
R&D Tax Incentive	*Incentive Program* (Ongoing) This program targets scientific research and experimental development (as defined for federal purposes) carried on in Manitoba. This program is administered by Canada Revenue Agency on behalf of Manitoba.	Corporations earn a 20% tax credit which can be applied against Manitoba corporate income tax payable in the year earned, with unused credits available for a ten-year carry-forward and a three-year carry-back.	Large and small corporations based in Manitoba can apply for the R&D tax credit.	Website gov.mb.ca/jec/energy/incentives.html
Residential Earth Power Loan	*Incentive Program* (Ongoing) This loan program covers qualifying home upgrades for: • geothermal (ground source) heat pumps; • cold climate air source heat pumps; • solar thermal water heaters; • solar photovoltaic systems. • Monthly installments are included on the owner's energy bill.	Residential Earth Power Loan The minimum allowable loan amount is $500. The maximum allowable loan is: Up to $20,000 for geothermal ground source heat pumps; Up to $10,000 for air source heat pumps; Up to $7,500 for solar thermal water heaters; Up to $30,000 for solar photovoltaic panels. Solar PV financing is calculated based on $3,000 per kW installed. The maximum term is 15 years. The loan becomes due and payable when the house is sold.	The applicant must be the owner of the home in which energy improvements are made and have an active Manitoba Hydro account in good standing. The Residential Earth Power Loan financing cannot be combined with any other Power Smart financing option for the same upgrade. The loan is not transferrable.	Website hydro.mb.ca/your_home/power_smart/earth_power_loan/index.shtml E-mail powersmartexpert@hydro.mb.ca Phone 204-480-5900 (toll free) 1-888-624-9376

Pan-Canadian Task Force on Remote Diesel Communities

Description	A Council of the Federation (COF) initiative under the Canadian Energy Strategy (CES), Premiers emphasised the need to improve access to affordable, clean, renewable and reliable supplies of energy in off-grid communities as a priority. Under the leadership of provincial and territorial energy ministers, the Pan-Canadian Task Force on Remote Diesel Communities was tasked to identity initiatives of mutual interest to reduce the use of diesel electricity generation in remote communities. As Chair of the Task Force, Manitoba hosted the Pan-Canadian Summit on Reducing Diesel in Remote Communities in January 2017. The Summit brought attention on the energy needs of remote communities across the country.
Funding and Timeframe	In fall 2016 the federal government worked with the CES Task Force to reduce diesel use in remote communities to plan and organize a Pan-Canadian Summit in Winnipeg, Manitoba (January 16-18, 2017). The Summit was a joint effort between the 10 Provinces and Territories that participate on the CES Remote Communities Task Force, as well as the federal government. NRCan and the Provinces and Territories funded the Summit, and all parties involved contributed to the organization of the event.
Stakeholders	The Summit provided a forum for over 150 stakeholders from all levels of government, Indigenous communities, industry, utilities, and academia to discuss and share ideas on how governments can remove barriers and promote diesel-reduction in remote communities. *Partners*: Natural Resources Canada; Indigenous and Northern Affairs Canada; Government of British Columbia; Government of Alberta; Government of Saskatchewan; Government of Manitoba; Government of Ontario; Government of Québec; Government of Newfoundland and Labrador; Government of Yukon; Government of Northwest Territories; Government of Nunavut.
Progress/Results	The task force is currently on hold. A Summit report, which includes recommendations on ways to support the reduction of diesel use in remote communities, was tabled with Premiers at the Council of the Federation in July 2017.
Info	Website: gov.mb.ca/jec/energy/summit.html

The Maritimes

New Brunswick

Nova Scotia

Prince Edward Island

Remote Communities Profile
All communities in New Brunswick, Nova Scotia, and PEI are grid connected and so communities do not rely on diesel as a main power source. However, diesel and other fossil fuel energy generation is still used as a main source of power or as backup and there are ongoing efforts in this region towards greater clean energy technology integration.

Initiatives for Clean Energy Technology Integration
Policy, guidance and regulatory landscape for clean technology integration
Resources and initiatives for clean technology integration

Policy, Guidance and Regulatory Landscape for Clean Technology Integration in the Maritimes

New Brunswick

Electricity from Renewable Resources Regulation	Regulation by the Government of New Brunswick that defines electricity from renewable resources generated in the province and from out of province as well as by local entities, First Nations, or businesses. Requires 40% of NB Power's in-province electricity sales to be served from renewable sources in 2020.
Transitioning to a Low-Carbon Economy – 2016 Climate Change Action Plan	Actions include reducing barriers to uptake of renewable sources for electricity and home and business heating, embedded generation and net-metering, accelerate energy efficiency programs. A 2017 Update on the Plan has been released

Nova Scotia

Marine Renewable Energy Legislation	This act governs the development of marine renewable energy resources—including waves, tidal range, in-stream tidal, ocean currents, and offshore wind–in designated areas of the Nova Scotia offshore.
Our Electricity Future: Nova Scotia's Electricity Plan	Nova Scotia's plan for its electricity future includes: support for technology and innovation; more predictable and stable power rates; more accountability and a regulatory system that is easier to understand; more competition for both large and small-scale generation.

Prince Edward Island

Energy Strategy	The Government of Prince Edward Island has developed a 10-year energy strategy to reduce energy use, establish cleaner, locally produced energy sources, and moderate future energy price increases. The Provincial Energy Strategy addresses four key areas where we need to take action to determine P.E.I.'s energy future: 1. Energy Efficiency and Conservation; 2. Power Generation and Management; 3. Biomass and Heating; 4. Transportation.

The Maritimes – Resources and Initiatives for Clean Technology Integration

New Brunswick

Title	Type/Status/Description	Funding/Timeframe	Eligibility	Contact Information
Community Renewable Energy	*Procurement Program* (Ongoing) This program allows NB Power to endeavor to obtain up to 40MW of renewable energy from First Nations and an additional 40MW of renewable energy from local entities.	Targeting 80MW by 2020/21.	The Regulation allows NB Power to enter into agreements for these types of New Brunswick or First Nation owned projects without going for a competitive bid.	Website www2.gnb.ca/content/gnb/en/departments/erd/energy/content/renewable/content/CommunityRenewableEnergy.html E-mail dem@gnb.ca.
Embedded Generation	*Incentive Program* (Ongoing) The Embedded Generation Program supports sustainable, renewable energy projects by allowing small-scale, locally owned generators to connect to the NB Power distribution system and begin supplying renewable energy onto the grid.	Payment for export to the transmission system will be based on 90% of NB Power's avoided cost, which varies hourly and is dependent on both pricing of fuel and the electricity market. Annual average rates of 5 cents/kWh or less should be anticipated. NB Power re-established the capacity limit for the program in 2016 to a total of 20MW of embedded generation. The present tariff for Embedded Generation is 10.642 ¢/kWh.	Local ownership of a renewable energy project is required. Applications can be: • A local entity, • An Aboriginal Business, • An individual who is a resident of the Province, • A sole proprietorship, the proprietor of which is a resident of the province • A corporation as defined in the Business Corporations Act and in which a majority of the voting shares is beneficially owned or controlled, directly or indirectly, by one or more individuals who are residents of the Province.	Website nbpower.com/en/products-services/embedded-generation/
Net Metering	*Incentive Program* (Ongoing) The NB Power Net Metering program provides customers with the option to connect their own environmentally	Return on investment will vary depending on the type of renewable energy technology used.	In order to qualify for the program, the generation units must: • meet NB Power technical requirements	Website nbpower.com/en/products-services/net-metering/ nbpower.com/en/save-energy/residential/total-

	sustainable generation unit to NB Power's distribution system. The program allows customers to generate their own electricity to offset their consumption, while remaining connected to NB Power's distribution system – so they can meet their electricity demands when their generation unit cannot.	Incentives available of $200-$300/kW under the recently released Total Home Energy Savings Program, conditions apply.	• not exceed 100 kW • come from renewable energy sources compatible with Environment Canada's Environmental Choice Program (EcoLogo TM) standards such as alternative use, biogas, biomass, solar, small hydro or wind.	home-energy-savings-program/

Nova Scotia

Title	Type/Status/Description	Funding/Timeframe	Eligibility	Contact Information
Community Feed-in Tariff (COMFIT) Program	*Inventive Program* (Closed) The Nova Scotia Community Feed-in Tariff (COMFIT) program was part of Nova Scotia's ongoing efforts to move away from carbon-based electricity to achieve 40% renewable energy sources by 2020. COMFIT encouraged community-based renewable energy projects by guaranteeing a rate per kilowatt-hour for the energy that feeds into the province's distribution electrical grid. The program was designed to broaden ownership of renewable electricity in Nova Scotia and facilitate community investment in electricity projects. Through COMFIT smaller producers are now able to supply renewable energy to their communities.			Website energy.novascotia.ca/renewables/programs-and-projects/comfit

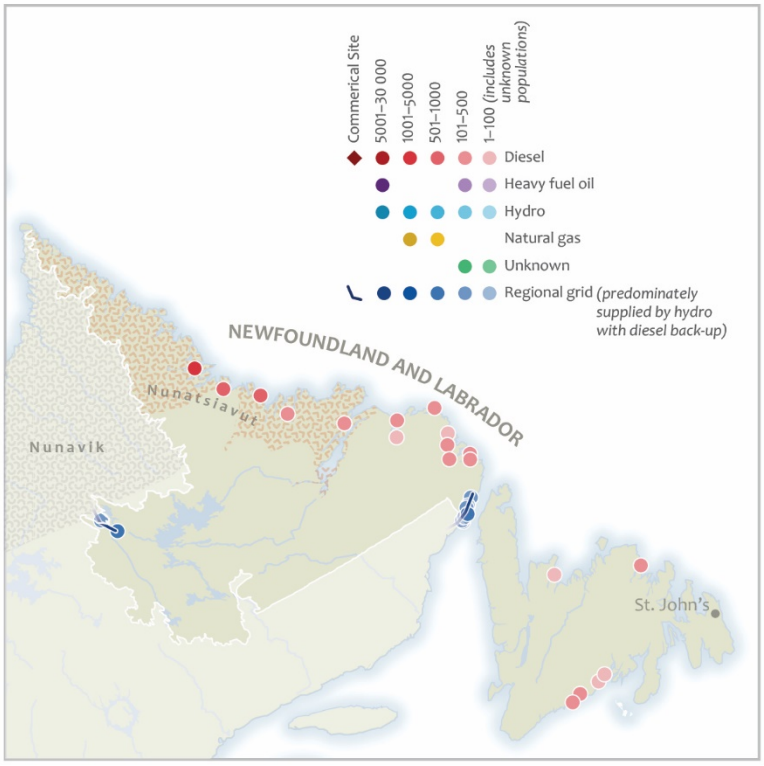
Developmental Tidal Feed-in Tariff Program	*Incentive Program* (Ongoing) The Developmental Tidal Feed-in Tariff (FIT) program is similar to the Community Feed-in Tariff (COMFIT) program as it encourages the development of specific renewable energy projects by guaranteeing a rate per kilowatt hour for the energy the project feeds into the province's electricity grid. It is different as it is designed to incentivize tidal energy developers to test and deploy their in-stream tidal energy projects in Nova Scotia. This tariff applies to in-stream tidal single device projects or arrays.	The Utility and Review Board sets rates for developmental tidal projects: Developmental (15 year term): $530 per megawatt hour (MWh) for projects producing ≤16,640 MWh per year.	There are no limits on ownership.	Website energy.novascotia.ca/renewables/programs-and-projects/tidal-fit
Enhance Net Metering	*Incentive Program* (Ongoing) Nova Scotians can install a source of renewable energy such as a wind turbine or set of solar panels – or even a small hydro or biomass generator - to help power their home or business. When you become a Nova Scotia Power net metering customer, the utility will install a bi-directional electricity meter to monitor and record the flow of electricity to and from your home or business.	If there is surplus energy at the end of the billing period, you'll receive a credit on your next bill. If at the end of a year you've still produced more electricity than you've used, we'll provide a cash payment for the surplus energy that has not already been applied to your power bill at a rate equal to the cost of energy from the grid. Net metering customers continue to pay a monthly base charge as normal. Commercial and industrial business customers, where applicable, will also pay their regular demand charges. See website for applicable rates.	A qualified generation device with a production capacity up to 100 kW that uses only renewable low-impact electricity as defined in the Renewable Electricity Regulations under Section 5 of the Electricity Act. These electricity sources include: solar; wind; run-of-the-river hydroelectric; ocean-powered; tidal; wave; sustainably harvested biomass; landfill gas.	Website nspower.ca/en/home/for-my-home/make-your-own-energy/enhanced-net-metering/default.aspx E-mail netmetering@nspower.ca
Solar for Community	*Incentive Program* (Ongoing)	Selected participants will be entitled to a 20-year power purchase agreement with their utility, at the price they propose.	The Solar for Community Buildings Pilot Program is designed to allow participation by Municipalities, Mi'kmaq Bands, Academic Institutions and Non-	Website energy.novascotia.ca/renewables/solar-energy

Buildings Pilot Program	This is a pilot program run by the Nova Scotia Department of Energy. The program's goals are to: • support community participation in renewable energy generation • learn more about how solar electricity can help Nova Scotia continue its clean energy transition		profits in the installation of solar panels for electricity generation on, and around, suitable buildings.	

Prince Edward Island

Title	Type/Status/Description	Funding/Timeframe	Eligibility	Contact Information
Net Metering	*Incentive Program* (Ongoing) A provincial government policy objective incorporated in the Renewable Energy Act was the introduction of net metering for small capacity renewable energy generators up to 100 kW in size. Since the late 1970's Maritime Electric, P.E.I.'s energy utility operator, had allowed the connection of small generators powered by renewable energy sources to its system. Net metering was introduced to assist customers who want to supply a portion, or all, of their annual electricity load from their own small capacity renewable energy generator.	• All infrastructure cost to facilitate a grid interconnection is the responsibility of the customer. • Maritime Electric will supply at no charge a second meter to measure the "out" energy to the grid. • Maritime Electric will bill the customer for all energy supplied through the "in" meter. • Maritime Electric will credit the customer monthly for all energy registered on the "out" meter at the same price per kWh that the energy on the "in" meter was supplied. • Credit kilowatt hours exceeding the "in" kWh will be carried to the following billing period. • Your system supplier and installer will provide you with pricing, estimated production capability and anticipated payback.	A net metered small capacity renewable energy generation facility may not exceed 100 kW capacity (100,000 watts).	Website maritimeelectric.com/services/articles/net-metering/

Newfoundland & Labrador



Initiatives for Clean Energy Technology Integration
Policy, guidance and regulatory landscape for clean technology integration
Resources and initiatives for clean technology integration

Remote Communities Profile
• 20 regulated isolated systems; 1 First Nation community and 1 remote commercial site o Does not include the hydro facility in Menihek, NL as the electricity is exported to Hydro Quebec to serve load in Quebec. • There are approximately 3400 customers on the regulated isolated system.

Energy Profile
Regulated isolated systems service provider: Newfoundland and Labrador Hydro ~ 37 kW of diesel generating capacity ~ 4 MW of imported Hydro capacity ~ less than 1 MW of wind capacity • Approximately 15 million litres of diesel was consumed to generate 52,766 MWh in 2017. • 19 regulated isolated systems reliant on diesel; 1 regulated isolated reliant on diesel and imported hydro. [5] [6]

[5] Remote Communities Database (2018)

[6] Isolated Electricity Systems in Newfoundland and Labrador, 2017

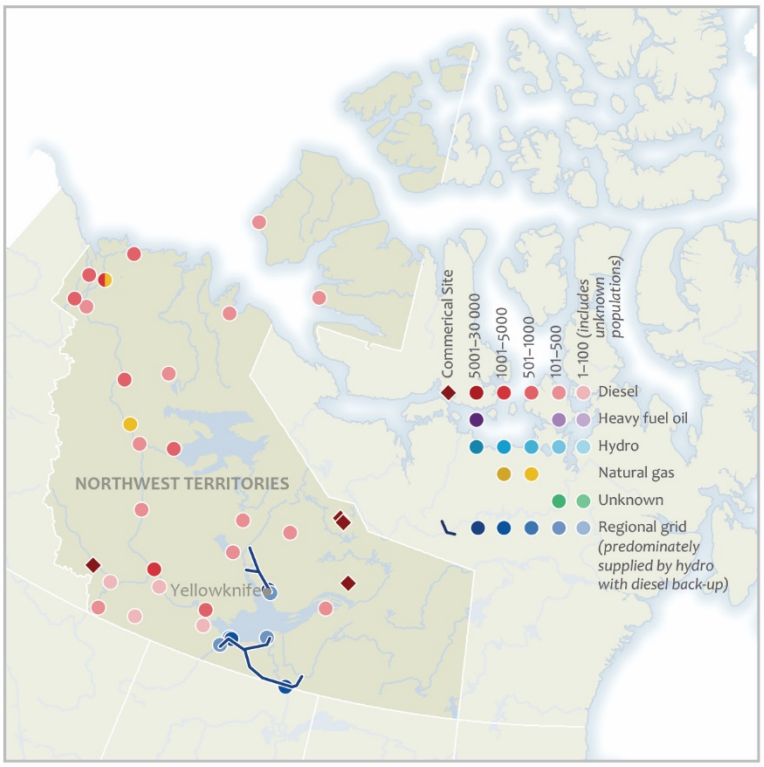
Policy, Guidance and Regulatory Landscape for Clean Technology Integration in Newfoundland & Labrador

Minister of Natural Resource's Mandate Letter	The letter mandates the Minister of Natural Resources to encourage more diverse distributed energy generation by seeking opportunities to develop wind farms and small scale hydro, prioritizing communities isolated from the primary power grid (such as coastal Labrador) and to encourage investment and innovation in electrical power generation projects.
The Way Forward: A Vision for Sustainability and Growth in Newfoundland and Labrador	The Way Forward commits to releasing a new Climate Change Action Plan, which will include a clean technology focus.
Technology Sector Work Plan	Plan commits to identifying and developing opportunities to leverage clean technology and related supports for development and adoption within industries.
The Way Forward: Building for Our Future	*The Way Forward* commits to working with industry and stakeholders to develop a renewable energy plan and commits to working with partners to find opportunities to develop and deploy clean technologies.

Newfoundland & Labrador – Resources and Initiatives for Clean Technology Integration

Title	Type/Status/Description	Funding/Timeframe	Eligibility	Contact Information
Biogas Electricity Generation Pilot Program	*Incentive Program* (Ongoing) Newfoundland and Labrador's Biogas Electricity Generation Pilot Program (the Program) was established in 2014/15 to encourage the development of biogas power generation in Newfoundland and Labrador, and generate electricity for the system.	Under the Program, Newfoundland and Labrador Hydro (NLH) will purchase electricity from biogas projects: • at a price per kWh equal to 90% of NLH's avoided marginal cost prior to Muskrat Falls entering commercial service; • at a price per kWh indexed to the market price minus NLH's associated transmission costs after Muskrat Falls enters commercial service; • up to a maximum of 2 megawatts (MW) per biogas project.		Website nr.gov.nl.ca/nr/energy/electricity/index.html#biogas E-mail customerservices@nlh.nl.ca Phone (toll-free) 1-888-737-129
Net Metering Policy Framework	*Incentive Program* (Ongoing) Newfoundland and Labrador's Net Metering Policy Framework was announced in 2015 and provides the policy parameters for Newfoundland and Labrador Hydro, Newfoundland Power, and the Board of Commissioners of Public Utilities to develop and implement net metering programs for utility customers.	• A customer's net consumption will be billed using retail rates that are consistent with those that apply to a non-net metering customer of the same size, type and location; • After each billing period (ie. monthly), a customer's net excess generation will be credited to the customer's next bill as a kWh credit;	• Eligibility is limited to small-scale renewable energy sources; • The programs will be available to domestic and general service (commercial) customers; • Individual renewable generation systems will be limited up to a maximum of 100kW and cannot be sized beyond a customer's load;	Website nr.gov.nl.ca/nr/energy/electricity/index.html#netmetering E-mail customerservices@nlh.nl.ca Phone (toll-free) 1-888-737-129

Northwest Territories



Initiatives for Clean Energy Technology Integration
Policy, guidance and regulatory landscape for clean technology integration
Initiatives for Reducing Diesel in Remote Communities
Alternative Energy Technologies Program (AETP)
Community Renewable Energy Program (CREP)
Community Government Building Energy Retrofit Program
Commercial Energy Conservation and Efficiency Program
Energy Efficiency Incentive Program (EEIP)
Net Metering (NTPC)

Remote Communities Profile

- 34 active remote communities; 4 active remote commercial sites
- Population of active remote communities in Northwest Territories approx. 44 597[7]

Energy Profile

Service Provider: Northwest Territories Power Corporation (NTPC), Northland; commercial sites have independent providers

~ 177 819 kW of total diesel generating capacity (including backups)

~ 174 584 052 MWh/year of total annual diesel generation

+ 103 000 000 litres of diesel consumed annually for electrical generation

- 23 remote communities are diesel reliant; all commercial sites are diesel reliant
- 9 communities are linked to a regional grid; all use diesel backups
- 2 communities are mainly powered by natural gas
- All industrial sites are diesel reliant with over 9 MW of wind generating capacity at one site.[8]

[7] NWT Bureau of Statistics (2018)

[8] Remote Communities Database (2018)

Policy, Guidance and Regulatory Landscape for Clean Technology Integration in the Northwest Territories

2030 Energy Strategy	The Government of the Northwest Territories (GNWT) has released its 2030 Energy Strategy. The Energy Strategy is a key part of the GNWT's approach to increasing energy security, stabilizing the cost of living and transitioning to a lower-carbon economy in the NWT. The Strategy focuses on energy security, affordability and sustainability. Through the Energy Strategy, the GNWT will work to meet commitments under the Pan-Canadian Framework to reduce NWT GHG emissions to 30% below 2005 levels by 2030. The Energy Strategy focuses on six Strategic Objectives: • Working with communities to find solutions • Reduce GHG emissions in diesel powered communities by 25% • Reduce road vehicle GHG emissions by 10% per capita • Increase the share of renewable energy heating to 40% • Decrease building energy use by 15%, and • A longer-term vision: developing the NWT's energy potential, address industry emissions, and do our part to meet national climate change objectives. Key elements of the Strategy include new and enhanced public grants for energy efficiency and conservation across all sectors (commercial, industrial and residential), increased support for alternative and renewable energy, as well as a new focus on transportation. The GNWT is taking steps to finalize an Action Plan that details the Actions and Initiatives that the GNWT and its partners will undertake to meet the Strategic Objectives set out in the Strategy. The Action Plan is a rolling plan that will be continuously updated for the life of the Strategy.
Climate Change Strategic Framework	The CCSF sets out the GNWT's coordinated response to climate change and was developed through input gathered through engagement sessions with Indigenous and community governments, resource management boards, non-government organizations, research institutions, schools, industry and the public.

Northwest Territories Petroleum Resources Strategy	The Northwest Territories (NWT) has vast undeveloped oil and gas reserves. It is estimated that the NWT could hold as much as 37 percent of Canada's marketable light crude oil resources and 35 percent of its marketable natural gas resources. The Department of Industry, Tourism and Investment (ITI) is responsible for the administration of onshore oil and gas interests in the Northwest Territories, including the Inuvialuit Settlement Region. ITI promotes economic self-sufficiency through the responsible management and development of NWT petroleum resources to create a prosperous, diverse and sustainable economy for the benefit of all NWT residents. ITI supports the use of recognized best practices and scientific evidence to protect the environment while responsibly developing natural resources to benefit NWT residents.
Electricity Policy and The Public Utilities Act	The GNWT sets policy for and regulates electricity in the NWT. Electricity policy principles include ensuring: • a comparable level of access to affordable power to all NWT communities; • that transmission systems remain under public control; • the incremental costs of developing alternative sources of electricity will not be transferred to electricity rates; • that the electricity system not be further fragmented to preserve current economies of scale; • and that hydroelectricity on Indigenous lands will be developed in partnership with Indigenous governments. The public electricity system in the NWT is regulated under the *NWT Public Utilities Act.* The Public Utilities Board under the Act sets rates on a cost of service model where only the most cost effective and prudent costs are allowed. All communities in the NWT have a regulated power utility that provides electricity. In each community each utility has the exclusive, although non-perpetual, right to supply and distribute power to that community. Independent power producers must negotiate access and power sales with existing utilities, and access is not guaranteed.

Alternative Energy Technologies Program (AETP)

Incentive Program (Ongoing)

Description	The Alternative Energy Technologies Program (AETP) provides funding for renewable energy sources such as solar, wind, wood pellet heating, biofuel/synthetic gas and ground source heat pumps. This funding is available to communities, commercial businesses and NWT residents. The Alternative Energy Technologies Program funding is split into three sections: • the Residential Renewable Energy Fund (RREF): to assist residents, • the Business Renewable Energy Fund (BREF): to assist commercial businesses including off-grid lodges and camps, • the Community Renewable Energy Program (CREP): to assist community and Indigenous governments. The information in this table applies to the Residential Renewable Energy Fund (RREF) and the Business Renewable Energy Fund (BREF). The CREP is addressed in a separate table. The AETP is administered by the Arctic Energy Alliance (AEA), a not-for-profit society with a mandate "to help communities, consumers, producers, regulators and policymakers work together to reduce the costs and environmental impacts of energy and utility services in the Northwest Territories."
Funding and Timeframe	The following costs have been approved for funding under AETP • alternative energy systems and all materials required for system installation • shipping costs • inverters and electrical control systems • batteries for stand-alone applications and for grid-tied systems with battery backup • integrated fuel storage/handling/feed equipment for wood pellet or other bio-fuels • monitoring equipment cost

Eligibility	The following technologies have been approved for funding under AETP: • Photovoltaic (PV) technologies to produce electricity. • Wind turbines. • Ground-source heat pumps. • Solar Hot Water Heating Systems for heating water. • Solar Air Heating Systems to pre-heat the air intake for a building. • In-Stream Hydro / Micro-hydro (which consists of a small turbine that is rotated by water pressure from a moving body of water or from water delivered by a pipe). • Wood Pellet Boiler / Furnace for space heating. • EPA Certified Wood Boiler / Furnace for space heating.
Contact	Phone: 867-920-3333 (Yellowknife Office) Website: aea.nt.ca/programs/alternative-energy-technologies-program

Community Renewable Energy Program (CREP)

Incentive Program (Ongoing)

Description	Renewable energy projects may receive funding of up to one-half (50%) of the project cost, up to $25,000 per year. The CREP is administered by the Arctic Energy Alliance (AEA), a not-for-profit society with a mandate “to help communities, consumers, producers, regulators and policymakers work together to reduce the costs and environmental impacts of energy and utility services in the Northwest Territories."
Funding and Timeframe	The following technologies are eligible for funding: • Photovoltaic (PV) technologies • Solar Hot Water Heating Systems • Solar Walls (Perforated panels installed on a south facing wall allowing air to be preheated before entering the air handler, reducing the load on the conventional heater.) • Wind turbines • Wood Pellet Boilers / Furnaces used as a primary heating system for space heating work in the same way conventional boilers or furnaces function with the exception of fuel type. An applicant may apply for a contribution for a technology not on the list. If they do, the applicant must provide substantiation that the project is technically feasible and otherwise complies with the program requirements. Eligible Costs: • Alternative energy systems and all materials required for system installation • Installation costs • Shipping costs • Batteries for off-grid applications • Integrated fuel storage/handling/feed equipment for wood pellet or other bio-fuels

Eligibility	Community and Indigenous governments and non-profit organizations are eligible to apply for this program. Work agreed to must be completed prior to March 31 of the fiscal year in which the funding is received. AEA is available to help project proponents plan and implement alternative energy projects. Funding under this program is to support the community to achieve the following goals: • Build public awareness, confidence and acceptance of alternative energy systems • Expand the alternative energy supply industry in the NWT • Reduce long-term dependence on imported fossil fuels • Reduce emissions of greenhouse gases Reduce long-term real cost of energy for customers
Contact	Phone: 867-920-3333 (Yellowknife Office) Website: aea.nt.ca/programs/alternative-energy-technologies-program

Community Government Building Energy Retrofit Program

Incentive Program (Ongoing)

Description	This Program supports upgrades to Community Government-owned buildings which will reduce their use of electrical/heat energy and water. The Arctic Energy Alliance (AEA) staff can help a community government get a handle on their building's current energy use and figure out the best savings, and the cost of upgrades and materials to get those savings. Community governments can also hire AEA to manage the implementation of energy upgrades for a fee. The program is administered by the Arctic Energy Alliance (AEA), a not-for-profit society with a mandate "to help communities, consumers, producers, regulators and policymakers to work together to reduce the costs and environmental impacts of energy and utility services in the Northwest Territories."
Funding and Timeframe	The total rebate a community government can receive is the lower of $25,000, 50% of the total eligible costs, or five times the annual estimated money saved in fuel, water, and electricity. AEA staff can help a community government figure out what their rebate will be before they spend any money.
Eligibility	AEA staff can help community governments in completing the rebate application form. Rebates for eligible expenses are issued by the AEA after the building upgrades are completed, installations confirmed and copies of paid invoices and/or receipts have been received by AEA.
Contact	Phone: 867-920-3333 (Yellowknife Office) Website: aea.nt.ca/programs/community-building-energy-retrofit-program

Commercial Energy Conservation and Efficiency Program

Incentive Program (Ongoing)

Description	The program provides energy expertise and funding to commercial businesses to conserve energy and improve their energy efficiency. The program targets savings in heating fuel, electricity and water. The intended purpose is to reduce greenhouse gas emissions. The program is administered by the Arctic Energy Alliance (AEA), a not-for-profit society with a mandate "to help communities, consumers, producers, regulators and policymakers to work together to reduce the costs and environmental impacts of energy and utility services in the Northwest Territories."
Funding and Timeframe	Through the Commercial Energy Conservation and Efficiency Program there are rebates available for energy upgrades of up to $15,000. This amount is calculated as the lower of 1/3 of renovation costs or 5 times annual energy savings. AEA encourages commercial business to contact an AEA office to discuss the Commercial Energy Conservation and Efficiency Program (CECEP). During this conversation it will be determined whether a potential eligible recipient will go through the process of having an energy yardstick completed or whether the simpler process of submitting receipts will instead be pursued. Relevant paperwork as required would then be submitted to the AEA.
Eligibility	Commercial businesses.
Contact	Phone: 867-920-3333 (Yellowknife Office) Website: aea.nt.ca/programs/commercial-energy-conservation-and-efficiency-program

Energy Efficiency Incentive Program (EEIP)

Incentive Program (Ongoing)

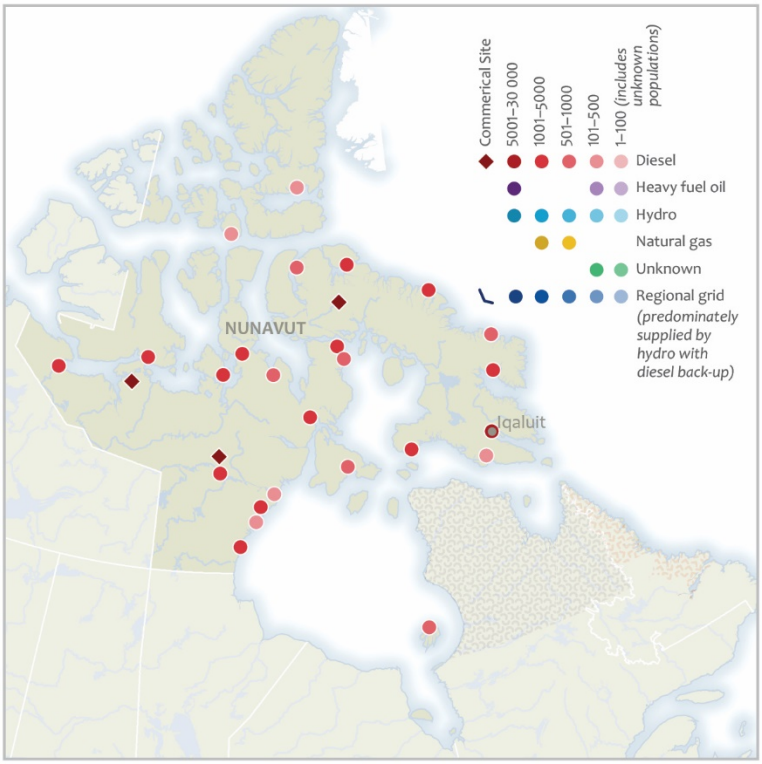
Description	The Energy Efficiency Incentive Program (EEIP) was designed to provide rebates to northerners who purchase new, more energy efficient models of products that are used every day. The program is administered by the Arctic Energy Alliance (AEA), a not-for-profit society with a mandate "to help communities, consumers, producers, regulators and policymakers to work together to reduce the costs and environmental impacts of energy and utility services in the Northwest Territories."
Funding and Timeframe	The program is in the form of a mail-in rebate after purchase for energy efficient appliances, heating appliances, LED light bulbs and drain water heat recovery systems. For residential insulation it is necessary to meet with an Energy Management Specialist in order to fill in a pre-approval form before work is completed. For the Air Sealing rebate it is necessary to have a blower door test completed. The application for a rebate needs to be received by AEA within 3 months of the purchase date on the receipt. Only products specified within the program guidelines are eligible for rebates. Eligible program recipients are encouraged to check with the AEA for exact listing of products that qualify. Only products purchased through NWT dealers are eligible for full rebates. Products purchased outside of the NWT but within Canada are eligible for 50% of the NWT rebate. Click for a list of participating dealers. Residents can apply for more than one rebate, up to a maximum of two products per category, per household, per calendar year with the exception of home renovations. Each non-profit organization, business and Indigenous and Community Governments can apply for more than one rebate to the maximum of five products per category, per calendar year with the exception of home renovations. Final approval will be made by the Executive Director of the AEA. Rebate forms must be complete and accurate to ensure prompt delivery of incentive.
Eligibility	This program is available to all NWT residents, businesses, non-profit organizations, Indigenous and Community Governments.
Contact	Phone: 867-920-3333 (Yellowknife Office) Website: aea.nt.ca/programs/energy-efficiency-incentive-program

Net Metering (NTPC)

Incentive Program (Ongoing)

Description	The Net Metering program, allows Northwest Territories Power Corporation (NTPC) customers who own small, commercially-proven, renewable energy generators to generate their own power and then send any surplus onto the electricity grid in their community. Net Metering customers can accumulate energy credits monthly for any excess electricity they produce to be used against those months when their usage exceeds their production.
Funding and Timeframe	Net Metering customers accumulate energy credits in kilowatt hours equal to the excess energy, calculated at the full retail rate. Customers can use excess generation up until March 31 of each year and use the credit in the winter months when they are most needed. The excess energy credits for each Net Metering customer will be reset to zero at the end of March each year.
Eligibility	Interested applicants should check the NTPC website for further information about program eligibility: www.ntpc.com/customer-service/net-billing
Contact	E-mail: netmetering@ntpc.com Phone: (867) 669-3307 Website: ntpc.com/customer-service/net-billing

Nunavut



Initiatives for Clean Energy Technology Integration
Policy, guidance and regulatory landscape for clean technology integration
Initiatives for Reducing Diesel in Remote Communities
Home Renovation Program (HRP)
Nunavut Energy Management Program
QEC Net Metering Program

Remote Communities Profile
• 25 active remote communities; 3 active remote commercial sites • Population of active remote communities in Nunavut approx. 36 672
Energy Profile
Service Provider: Qulliq Energy Corporation, Independent (for commercial sites) ~ 140 202 kW of total diesel generating capacity ~ 320 308 MWh/year of total annual diesel generation ~ 183 164 828 litres of diesel consumed in 2016 • All remote communities and commercial sites rely on diesel and residual waste heat recovery from diesel generation for heating.[9]

[9] Remote Communities Database (2018)

Policy, Guidance and Regulatory Landscape for Clean Technology Integration in Nunavut

Ikummatiit: An Energy Strategy for Nunavut	Written in 2007, Ikummatiit provides information and insights for Nunavut's energy policies and related Government programs. Ikummatiit addresses these important topics: • Improve the security of the energy system by reducing reliance on imported fossil fuels, diversifying energy supply to include clean, alternative energy and domestic energy sources. • Manage the cost of energy-based services such as transportation, heating, hot water, lighting, and cooking, by reducing the cost of providing energy and improving the efficiency of its use. • Reduce the impact on the environment by reducing energy-related emissions which contribute to pollution and climate change. • Provide business and employment opportunities as the Territory increases energy efficiency and uses renewable and domestic energy sources.
Potential for Wind Energy in Nunavut Communities	In March 2016, a study was conducted to assess the viability of wind power generation in all 25 communities in Nunavut. It resulted in a short list of top five potential communities in which wind energy could generate electricity. The integration of energy produced by wind turbines to the existing diesel power generation system would minimize Nunavut's diesel fuel dependency and subsequently reduce greenhouse gas emissions in the territory.

Home Renovation Program (HRP)

Incentive Program (Ongoing)

Description	The Home Renovation Program (HRP) is led by Nunavut Housing Corporation (NHC). It provides assistance to homeowners who wish to carry out major repairs, renovations and additions to their home to cover cost related to repairs and/or renovation including materials, freight, and labour.
Funding and Timeframe	Funding is allocated to homeowners based on a sliding scale. Maximum contribution amounts are set relative to household income and range from $13,000 (20% of repair costs) to $65,000 (100% of repair costs) per household. Note: Where an applicant has already received HRP assistance, they may apply for an additional $15,000 to improve the energy efficiency of their dwelling. Eligible repairs are prioritized according their achievement of the following: 1. Health and safety improvements (including improvements required to address accessibility); 2. Suitability improvements (i.e. to alleviate overcrowding); 3. Energy efficiency improvements (including renewable energy systems so that homeowners can apply to the Net metering program); 4. Improvements to extend the useful life of the unit (i.e. weather resistance and durability improvements), and; 5. Other improvements (see HRP guidelines).
Eligibility	Eligible applicants: • Must be at least 19 years of age and have resided in Nunavut for at least two years. • This program follows income eligibility limits as set by the Homeownership Program Income Eligibility (HPIE) numbers; • Applicants with rental or mortgage arrears or have otherwise caused a loss to the NHC, do not qualify for the program until those arrears or losses are paid in full; • Must possess title (or leasehold title) to the property or occupy the unit under an Occupancy Agreement (provided that all other eligibility requirements are met). Eligible units: • Must be at least 5 years old. • Must have a current insurance policy in place for not less than the full replacement cost of the home. • Must be located within municipal boundaries in Nunavut. • Must be used by the client(s) as their principal residence.
Contact	Phone (NHC): 867-857-3000 Website: nunavuthousing.ca/hrp

Nunavut Energy Management Program (NEMP)

Incentive Program (Ongoing)

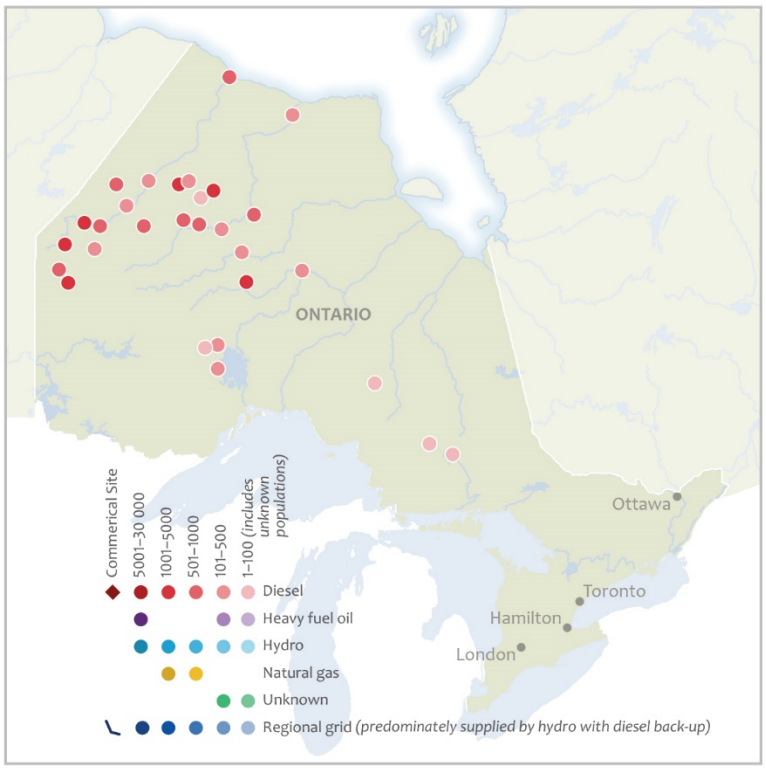
Description	The Nunavut Energy Management Program (NEMP) is led by the department of Community and Government Services (CGS). The main objective of the program is to reduce energy consumption by 20%, by retrofitting existing GN owned facilities territory wide. The program initiated with Iqaluit Pilot Project (IPP) which aimed at retrofitting existing buildings in Iqaluit. Energy performance contracting (EPC) model was utilized to implement this project. These retrofit efforts will further be replicated in Nunavut's other 25 communities in following phases • Kivalliq Region project (in development phase, construction to start later this year) • South Baffin Region project (in development phase, construction to start next year summer) • North Baffin Region project (RFP to be issued early next year to engage Energy Services company (ESCo) to perform site wide audit in the region of North Baffin)
Funding and Timeframe	IPP and Kivalliq Region are third party funded projects while South Baffin is 75% Federal Government and 25% GN funded project. GN secured funding from Federal Government for South Baffin under Low Carbon Energy Fund (LCEF). • IPP was started in 2007 and completed in 31st March, 2013 • Kivalliq Region will enter into construction phase in Sept, 2018 and expected to be completed by 1st Dec, 2020 • South Baffin project's construction is expected to start on 1st April, 2019 and complete by Mar 31st, 2023
Contact	Website: energy.gov.nu.ca/en/nemp.aspx

QEC Net Metering Program

Incentive Program (Ongoing)

Description	Qulliq Energy Corporation (QEC) introduced the Net Metering Program across the territory in April 2018. The Net Metering Program allows eligible customers to receive energy credits for surplus energy sent to QEC's grid. Energy credits are applied to the net metering customer's monthly bill. At the end of the fiscal year (March 31) all outstanding energy credits will be reset to zero. • Net metering allows customers to generate their own electricity and reduce the amount of power they need from QEC. • Net metering will result in customers seeing energy credits on their monthly utility bill for electricity sent to the grid. • Net metering is also expected to help reduce QEC's reliance on diesel fuel and reduce carbon emissions.
Funding and Timeframe	To be announced.
Eligibility	The Net Metering Program allows eligible QEC customers to receive energy credits for surplus energy sent to QEC's grid. Eligible customers include all residential customers and one Municipal Corporation Customer Account per community. Customers can apply all year round. The maximum capacity of an installed renewable energy generation system under the Net Metering Program is 10 kilowatts.
Contact	E-mail: customercare@qec.nu.ca Phone (toll free): 1-866-710-4200 Website: qec.nu.ca/customer-care/net-metering-program

Ontario



Initiatives for Clean Energy Technology Integration
Policy, guidance and regulatory landscape for clean technology integration
Resources and initiatives for clean technology integration
Initiatives for Reducing Diesel in Remote Communities
Indigenous Community Energy Plan
Indigenous Energy Projects: Partnership Sub-Stream
Indigenous Energy Projects: Project Development Sub-Stream
Indigenous Energy Projects: Innovation Stream
Hydro One Renewable Energy Innovation Diesel Emission Reduction (REINDEER)

Remote Communities Profile
• 30 active remote communities • Population of active remote communities in Ontario approx. 19 327
Energy Profile
Service Providers: Hydro One, Independent, Five Nations Energy Omushkego Ishkotayo, ~ 45 062 kW of total diesel fuel generation capacity ~ 62 901 MWh/year of total annual diesel generation ~ 23 575 829 litres of diesel consumed in 2017 • All remote communities in Ontario are diesel reliant • For some diesel reliant remote communities, renewable energy sources are mixed in to back up, peak, and supplement power.[10]

[10] Remote Communities Database (2018)

Policy, Guidance and Regulatory Landscape for Clean Technology Integration in Ontario

Advanced Energy Centre	The Advanced Energy Centre's mission is to foster the adoption of innovative energy technologies in Canada, and to leverage those successes and experiences into international markets. The Advanced Energy Centre's Community Energy program facilitates engagement and explores the innovative trends affecting how Canadian communities produce and consume energy. To this end, the Centre is currently supporting three initiatives in Ontario, reaching from off-grid communities in Northern Ontario to a downtown urban development in Ottawa.

Ontario – Resources and Initiatives for Clean Technology Integration

Title	Type/Status/Description	Funding/Timeframe	Eligibility	Contact Information
Education and Capacity Building Program (ECB)	*Capacity Building (ongoing)* The Education and Capacity Building (ECB) Program provides funding to support awareness, education, skills, and capacity building initiatives that help prepare First Nation and Metis communities and organizations to fully leverage energy opportunities and contribute to cleaner, more reliable and more affordable energy systems.	ICEP, ECB, IEP, and a Conservation Fund share a yearly $10 million operating budget. Occasionally unspent funds are rolled over. Up to $125,000 per project	First Nation and Métis Communities and Organizations in the province of Ontario and Non-indigenous entities working in partnership with, and for the benefit of, First Nation or Métis Communities or Organizations (joint applicants only) can apply for funding. The applicants should fit into one of the following Program Streams: Capacity Building; Skills, Training and Job Readiness; Innovation.	Website ieso.ca/en/get-involved/funding-programs/education-and-capacity-building-program/overview E-mail ECB@ieso.ca Phone 1-416-969-6317
Northern Ontario Heritage Fund Corporation - Northern Innovation program	*Capacity Building* (Ongoing) The Northern Innovation Program supports the development and commercialization of new technologies that will contribute to future prosperity in Northern Ontario, and by fostering collaboration and partnerships among the private sector, academic institutions and research institutes.	**Applied Research & Technology Development Projects and Pilot Demonstration & Commercialization Projects:** Financial assistance is limited to 50% of eligible costs to a maximum of $500,000 as a conditional contribution. Senior Government funding not to exceed 50% of eligible project costs. **Opportunity Assessment Projects**: Non-indigenous entities working in partnership with, and for the benefit of, First Nation or Métis Communities or Organizations (joint applicants only).	Northern Ontario private companies are eligible to apply for funding with Opportunity Assessment Projects, Applied Research & Technology Development Projects, and Pilot Demonstration & Commercialization Projects. Ontario research institutions are eligible to apply for Industrial Research Chairs.	Website nohfc.ca/en/pages/programs/northern-innovation-program

Ontario Municipal Energy Program	*Capacity Building* (Ongoing) Support for municipalities to develop integrated energy, infrastructure and land use plans.	The program covers 50% of eligible costs up to a maximum of: • $90,000 to create a new plan • $25,000 to continue work on an existing plan (e.g. update energy data or maps, engage stakeholders, or develop more detailed implementation plans) Funding is stackable, however it cannot exceed total costs.	All Ontario municipalities (including regional municipalities) can apply. The Municipal Energy Plan Program currently has 24 successful applicants representing 37 municipalities across Ontario.	Website ontario.ca/page/municipal-energy-plan-program E-mail MEP@ontario.ca
Smart Grid Fund	*Incentive Program* (Ongoing) The enhanced Smart Grid Fund focuses on encouraging a culture of innovation within the electricity sector that explores new solutions for integrating many technologies, tests new business models, integrates electricity and other energy resources and generates new ideas for advancing grid modernization.	The Ministry of Energy is planning to hold calls for applications in support of Round 4 of funding. Funds available, maximum funding, and stacking rules vary with each application call.	Funding generally restricted to organizations that can commercialize technologies and intend to do so in Ontario. Some funding streams may only support regulated local distribution companies in Ontario.	Website ontario.ca/document/projects-funded-smart-grid-fund E-mail SGF@ontario.ca

Indigenous Community Energy Plan (ICEP) Program

Capacity Development (Ongoing)

Description	The Indigenous Community Energy Plan (ICEP) Program supports Indigenous communities in the development or updating of comprehensive, long-term energy plans. The ICEP replaces the Aboriginal Community Energy Plan (ACEP) Program as of May 1, 2018. A Community Energy Plan helps to improve energy efficiency and reduce electricity consumption at the community level. It also helps communities consider opportunities for renewable energy solutions, and can promote a greater interest, awareness and understanding about energy planning. The program is administered by the Independent Electricity System Operator (IESO).
Funding and Timeframe	ICEP, ECB, IEP, and a Conservation Fund share a yearly $10 million operating budget. Occasionally unspent funds are rolled over. Up to $90,000 is available per community to develop a new plan. Up to $25,000 is available per community to update an existing plan. Up to $5,000 additional is available for remote communities in both streams. Funding is stackable, but if costs are already covered, it cannot be duplicated. Funds pay for costs directly related to the project that are considered reasonably necessary to complete the work, activities, and deliverables outlined in an approved proposal.
Eligibility	Eligible applicants include First Nation or Métis Communities and First Nation or Métis Organizations (including Friendship Centres, Indigenous housing providers, and others). See the Program Guidelines for more details. Funding is not provided to individuals. In recognition that applicants may wish to take a collaborative approach, a joint application for a shared single community energy plan may be submitted by two or more eligible applicants.
Progress/Results	Applications are accepted on an ongoing basis, with proposals reviewed at specific times throughout the year. Over 100 communities are participating in the program. This includes remote, northern and southern First Nations.
Contact	E-mail: icep@ieso.ca Phone: 1-416-969-6317 Website: ieso.ca/en/get-involved/funding-programs/indigenous-community-energy-plan-program/icep-overview

Indigenous Energy Projects (IEP) Program: Partnership Sub-Stream

Capacity Development (Ongoing)

Description	The IEP Program replaces the Energy Partnerships Program (EPP) as of May 1, 2018. The Partnership Stream — supports Indigenous communities by funding activities involved in assessing and developing partnerships for renewable energy projects and identified transmission projects. This includes conducting legal, technical and financial due diligence.
Funding and Timeframe	ICEP, ECB, IEP, and a Conservation Fund share a yearly $10 million operating budget. Occasionally unspent funds are rolled over. Funding is provided under the IEP Program for Eligible Expenses that are directly related and reasonably necessary to complete the project to assess and develop opportunities for First Nation or Métis Communities or First Nation or Métis Organizations to participate in: (a) partnerships in new or existing renewable energy projects; or (b) partnerships with licensed transmitters or entities seeking to become licensed transmitters meeting certain criteria. The maximum amount of funding provided for a project funded under the IEP Program will be the lesser of 80% of the total project costs and maximum funding amount per project. For Partnerships sub-stream, the maximum funding amount per project is $50,000. Multiple applications can be made to the IEP program however recipients are only eligible to receive up to $200,000 per calendar year from the IEP program.
Eligibility	Eligible applicants include First Nation or Métis Communities and First Nation or Métis Organizations (including Friendship Centres, Indigenous housing providers, and others). See the Program Guidelines for more details. Funding is not provided to individuals. Joint applications for a shared single project may be submitted by two or more eligible applicants.
Progress/Results	The IEP Program accepts submissions on an ongoing basis, with application submission dates spread throughout the year. The application review dates will be posted online from time-to time at ieso.ca/iep.
Contact	E-mail: iep@ieso.ca Phone: 1-416-969-6317 Website: ieso.ca/en/get-involved/funding-programs/indigenous-energy-projects-program/iep-overview

Indigenous Energy Projects (IEP) Program: Project Development Sub-Stream

Capacity Development (Ongoing)

Description	The Project Development Stream funds the soft costs associated with developing renewable energy projects.
Funding and Timeframe	ICEP, ECB, IEP, and a Conservation Fund share a yearly $10 million operating budget. Occasionally unspent funds are rolled over. The maximum amount of funding provided for a project funded under the IEP Program will be the lesser of 80% of the total project costs and maximum funding amount per project. Under the Project Development Stream, an applicant may be eligible to apply for funding up to a maximum of $175,000. (Up to $150,000 for project development and up to $25,000 for feasibility study).
Eligibility	The program funds proposals for renewable energy projects by First Nation or Métis Communities or First Nation or Métis Organizations, on their own or in partnership with a third party.
Progress/Results	The IEP Program accepts submissions on an ongoing basis, with application submission dates spread throughout the year. The application review dates will be posted online from time-to time at ieso.ca/iep.
Contact	E-mail: iep@ieso.ca Phone: +1-416-969-6317 Website: ieso.ca/en/get-involved/funding-programs/indigenous-energy-projects-program/iep-overview

Indigenous Energy Projects (IEP) Program: Innovation Stream

Capacity Development (Ongoing)

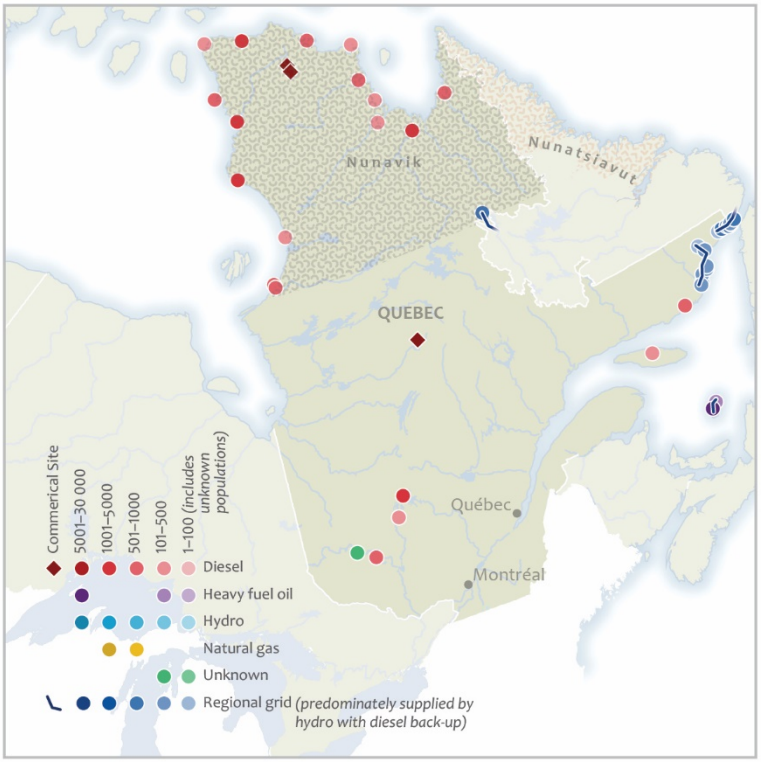
Description	Funding support for the demonstration and deployment of innovative delivery models and/or technologies related to renewable energy projects.
Funding and Timeframe	ICEP, ECB, IEP, and a Conservation Fund share a yearly $10 million operating budget. Occasionally unspent funds are rolled over. The maximum amount of funding provided for a project funded under the IEP Program will be the lesser of 80% of the total project costs and maximum funding amount per project. Under the innovation stream, maximum funding per project is $200,000.
Eligibility	The program funds proposals for renewable energy projects by First Nation or Métis Communities or First Nation or Métis Organizations, on their own or in partnership with a third party.
Progress/Results	The IEP Program accepts submissions on an ongoing basis, with application submission dates spread throughout the year. The application review dates will be posted online from time-to time at ieso.ca/iep.
Contact	E-mail: iep@ieso.ca Phone: +1-416-969-6317 Website: ieso.ca/en/get-involved/funding-programs/indigenous-energy-projects-program/iep-overview

Renewable Energy Innovation Diesel Emission Reduction (REINDEER)

Incentive Program (Ongoing)

Description	Program offered by Hydro One Remotes - Through Hydro One's Renewable Energy Innovation Diesel Emission Reduction (REINDEER) program, communities can develop renewable projects and sell renewable energy to Hydro One. The REINDEER program offers communities the opportunity to reduce energy bills on key assets like schools, band offices and airports and helps to reduce diesel fuel usage. Two types of renewable energy projects are eligible for the program: "Net Metering and Stand-Alone installations. Hydro One Remotes considers a project a "Standalone" type project if the installation's primary purpose is to provide additional generation to the community and will feed all of the power produced into Remotes' system. Hydro One Remotes encourages proponents to consider working with First Nations to develop Net Metering projects as an alternative to Standalone generating projects. Net Metering enables customers to generate their own electricity to reduce the per kWh cost of electricity paid to Hydro One Remotes.
Funding and Timeframe	Remotes offers to pay the 3 year historical average cost of fuel per kWh produced/avoided cost of fuel specific to that community. For "net" metering projects, as of May 1, 2016 for projects over 250 kWh: • Air Access community – 97.69 cents/kWh • Road/Rail access community – 67.56 cents/kW For stand-alone projects, payments are made for kWh injected into Remotes' system. Remotes offers to pay the 3 year historical average cost of fuel per kWh produced/avoided cost of fuel specific to that community. 2016 rates range from 24.8 cents/kWh to 70.7 cents/kWh with most communities in the 40 cent range.
Eligibility	Eligibility requirements: • Must use a renewable resource • Must have First Nation participation/support (if in a First Nation community) • Project must be sized according to the electrical need of the community and to the kW size of existing generation in the community.
Progress/Results	Since 2014, REINDEER has helped to install 16 renewable energy projects for a sum of 348.5 kW of installed capacity among 21 communities served by the program.
Contact	E-mail: RemotesCustomerService@HydroOne.com Phone: 1-807-474-2800 (toll free): 1-888-825-8707

Quebec



Initiatives for Clean Energy Technology Integration
Policy, guidance and regulatory landscape for clean technology integration
Resources and initiatives for clean technology integration
Initiatives for Reducing Diesel in Remote Communities
Northern Plan Fund Initiative
Prototype Northern Housing
Standards for Buildings in the North

Remote Communities Profile

- 45 active remote communities; 3 remote commercial sites
- Population of active remote communities in Quebec approx. 45 000

Energy Profile

22 regulated isolated systems, Service Provider: Hydro Quebec
~ 60 000 kW of total diesel generating capacity
~ 126 000 MWh/year of total annual diesel generation[11]
~ 35 000 000 litres of diesel consumed in 2015[12]

- 23 remote communities powered mainly by diesel
- 15 remote communities powered mainly by hydro
- 7 remote communities powered mainly by heavy oil
- 3 commercial sites powered mainly by diesel, serviced by independent providers
- Energy for Lac-Rapide remote community provided by CIRNAC/ISC.[13]

[11] Figure from 2015 for Hydro-Québec's diesel plants only. Excludes the production of 200,000 MWh from the Cap-aux-Meules heavy fuel oil plant.
[12] Approximate data for the electricity produced by the Hydro Quebec diesel plants in 2015, estimated at a yield of 3.6 kWh / liter of diesel.
[13] Remote Communities Database (2018)

Policy, Guidance and Regulatory Landscape for Clean Technology Integration in Quebec

Energy Policy 2030	This policy guides Quebec's energy objectives with looking forward towards 2030. PÉ2030 sets out the priorities of the province's energy and climate actions including, "support for projects of off-grid communities and businesses that seek to convert fossil fuel energy sources to renewable energy sources."
Transition Énergétique Québec	Transition Énergétique Québec (TEQ) is a new department of the Government of Quebec that is responsible for supporting, encouraging, and promoting energy transition, innovation, and efficiency.
2018-2023 Energy Transition, Innovation and Efficiency Master Plan	The 2018-2023 Master Plan presents the roadmaps and measures that will enable Québec to meet its energy efficiency target and reduce its consumption of petroleum products by 2023.
Action Plan 2013-2020 on Climate Change	Seeks to reduce GHG emissions by 20% below the 1990 level by 2020. The plan allows for the implementation of measures in all major sectors (e.g. transport, industry, buildings, etc.) that emit greenhouse gases. The plan builds on 30 priorities related to the reduction of GHG emissions and climate change adaptation. These priorities set more than 150 actions undertaken by 12 departments and one agency of the Government of Quebec.
Regulation respecting mandatory reporting of certain emissions of contaminants into the atmosphere	This regulation gathers information relating primarily to contaminants that have led to increases in GHGs, acid rain, smog, and pollution toxic. The reporting threshold for GHG emitters is 10,000 tonnes of CO_2 equivalent, with the exception of distributors of fuels and fuels for which the threshold is set at 200 litres.
Greenhouse Gas Emissions Cap and Trade System	Flexible market mechanism to lower carbon costs in business decision-making and to facilitate net GHG reductions at a lower cost while promoting the development of clean technologies.
Hydro-Québec Strategic Plan 2016-2020	Hydro-Québec will take part in Québec's energy transition by implementing conversion of off-grid systems to cleaner, less costly energy sources.
Hydro- Québec Self-Generation	Hydro-Québec customers who produce electricity using equipment they own and operate to meet part, or all, of their energy needs can participate in a net metering program offering credit for excess electricity generated and delivered back into the grid.

Quebec – Resources and Initiatives for Clean Technology Integration

Title	Type/Status/Description	Funding/Timeframe	Eligibility	Contact Information
Call for projects to reduce greenhouse gas emissions	*Incentive Program* (On Hold) Financial support to SMEs for development projects and use of new green technologies in agriculture and agri-food permitting reductions in GHG emissions in Quebec.	Budget: $12.5 million until 2020. 50% of eligible costs can be covered for projects over $3 million. Call for proposals closed February 16, 2018.	Small and medium enterprise developing green technologies in agriculture and agri-food industries.	Website economie.gouv.qc.ca/bibliotheques/programmes/aide-financiere/appel-de-projets-visant-la-reduction-des-emissions-de-ges/
Residual Forest Biomass	*Incentive Program* (Ongoing) The program aims to reduce greenhouse gas emissions and the consumption of fossil fuels by funding energy conversion projects related to using residual forest biomass as fuel.	Budget: $152.2 million from 2013-2014 to 2020-2022 Analysis component: 50%, up to a maximum of $50 000 Implementation component: 50%, up to a maximum of $3 million. Cumulative financial assistance from government departments or agencies (federal and provincial), distributors of energy, and TEQ for actions shall not exceed 75% of total eligible expenditures.	The Residual Forest Biomass Program is offered to businesses, institutions and municipalities that use fossil fuels and commit to measurably and sustainably reduce consumption through the implementation of conversion measures to residual forest biomass. It is aimed at both small and large energy consumers. Smaller energy users have a non-electrical energy consumption of less than 36,000 GJ per year, while large consumers have a consumption of 36,000 GJ or more per year.	Website transitionenergetique.gouv.qc.ca/clientele-affaires/biomasse-forestiere-residuelle/ **Guy Desbiens** E-mail guy.desbiens@teq.gouv.qc.ca Phone 418-627-6379 ex. 8016

ÉcoPerformance	*Incentive Program* (Ongoing) ÉcoPerformance aims to reduce the greenhouse gas emissions and energy consumption of businesses by funding projects or measures related to the consumption and energy production, as well as to the improvement of processes.	Budget: $602 million from 2013-2014 to 2020-2022 Analysis component: 50%, up to a maximum of $300 000. Implementation component: 75%, up to a maximum of $5 million per application and $10 million per site per year. Cumulative financial assistance from government departments or agencies (federal and provincial), distributors of energy, and TEQ for actions shall not exceed 75% of total eligible expenditures.	ÉcoPerformance is available to businesses, institutions and municipalities that consume fossil fuels or use processes that generate fugitive GHG emissions, to enable them to take the next step in reducing this type of emissions. It is aimed at both small and large energy consumers.	Website transitionenergetique.gouv.qc.ca/clientele-affaires/ecoperformance **Nadia Lalancette** E-mail Nadia.Lalancette@teq.gouv.qc.ca Phone 418-627-6379 ex. 8014
Technology and Commercialization Demonstration Program	*Incentive Program* (Ongoing) The program provides financial aid to validate the technical applicability or commercial cost-saving measures of innovative electrical energy optimization and for energy demand.	The program covers 50% of the total eligible project cost, up to a maximum of $300 000.	Funding available to projects that meet the following criteria: • new technology, new approach or new application of existing technology; • possibility of significant energy savings or optimization of power demand; • reproducibility potential in the market. Self-generation or electricity generation projects are not eligible.	Website hydroquebec.com/affaires/offres-programmes/demonstration-technologique-commerciale.html

Partnership Research Program on Reducing Greenhouse Gas Emissions	*Incentive Program* (On Hold) The program seeks research partnerships for the reduction of greenhouse gas emissions. The program tackles the fight against climate change by bringing together researchers from complementary disciplines and fields around projects and partnerships to reduce GHG emissions in Quebec. Program competition and grants are managed by the *Fonds de recherche du Québec - Nature and technologies* (FRQNT).	Budget : $8.228 million Grants of up to $200,000 in total for two years and $300,000 for projects of three years.	Research projects must meet the eligibility requirements outlined in Chapter 2 of the Program Guide. Only the researchers, academics, clinicians/practitioners and college can be responsible for a research project and submit a request for this program.	Website frqnt.gouv.qc.ca/bourses-et-subventions/consulter-les-programmes-remplir-une-demande/bourse/programme-de-recherche-en-partenariat-sur-la-reduction-des-emissions-de-gaz-a-effet-de-serre--1supersup-concours-ja6zeldm1504709828449
Technoclimat	*Incentive Program* (Ongoing) The program aims to encourage the development, of technology innovations in energy efficiency, renewable energy, bioenergy and GHG emissions reductions by providing financial support to project promoters who wish to demonstrate their potential technological innovation. It is also intended to test, energy efficiency, renewable energy, bioenergy and GHG emission reduction technologies that are not available on the Québec market or are very marginal.	Budget : $103.75 million from 2013-2014 to 2020-2021 The financial assistance granted following the acceptance of the project by TEQ can reach up to 50% of eligible expenses. The maximum amount of financial assistance granted for a project is $3 million, and $5 million for a project deemed strategic in transportation electrification. Total financial assistance obtained from government departments or agencies (federal and provincial), energy distributors and TEQ for the project must not exceed 75% of the total eligible expenditures.	Eligible projects must focus on pre-commercial technological innovation (technology maturity level 4 to 7) in terms of energy efficiency, renewable energy, bioenergy or GHG reduction.	Website transitionenergetique.gouv.qc.ca/clientele-affaires/technoclimat **Frédéric Côté** E-mail Frederic.Cote@teq.gouv.qc.ca Phone 418-627-6379 ex. 8115

Northern Plan Fund Initiative (FIPN)

Incentive Program (On Hold)

Description	The goal of *The Northern Plan Toward 2035*, *2015-2020 Action Plan* is to provide for the development of the full range of potential existing north of the 49th parallel for the benefit of the local population and the whole of Québec, through an exemplary form of sustainable development based on a comprehensive, integrated, consistent and responsible approach. The *2015-2020 Action Plan* provides a framework for operations under the Northern Plan, setting out 90 priority actions to be implemented by 21 government departments and bodies. Implemented by the *Société du Plan Nord* (SPN), the FIPN aims to support projects that relate to three key strategic policy directions: • Generate economic activities, create and maintain jobs in the territory; • Promote the development and well-being of northern communities; • Aim for the protection of the environment and the conservation of biodiversity. The SPN is the key authority for the deployment of the various components of *The Northern Plan Toward 2035, 2015-2020 Action Plan*. Its mission is to contribute to the integrated and coherent development of the area covered by the Plan Nord, in compliance with the policy directions concerning the Plan Nord and in keeping with the principles of sustainable development. To complement the actions undertaken by government departments and bodies, the Northern Plan Fund Initiative (FIPN) has been created to support the implementation of projects of interest to northern communities that are consistent with the process.
Funding and Timeframe	The financial commitments for the two calls for projects for 2018-2019 will be limited to the amount of the dedicated budget envelope of $3,000,000, subject to the availability of annual appropriations. The maximum financial assistance for a single project is $100,000, except for a project in the Strategic, multi-user infrastructures and equipment in the economic field category, or a project in the Social or community infrastructures category, where the maximum authorized financial assistance is $250,000. For projects of a public nature: • The cumulative total of government assistance cannot exceed 90% of eligible project costs; • A cash contribution of at least 10% of the eligible project costs is required from the applicant or community. For projects of a private nature: • The cumulative total of government assistance cannot exceed 50% of eligible project costs;

<table>
<tr><td></td><td>

- A cash contribution of 50% of the eligible project costs is required from private enterprises from the applicant or the community.

</td></tr>
<tr><td>Eligible Recipients</td><td>The client groups eligible for funding from the FIPN are:

Non-profit, incorporated organizations; Cooperatives and mutual associations (excluding the following sectors: financial services, insurance, health care and retail sales, except in the latter case if the assistance will help maintain the last remaining local outlet that is essential for the community); Band councils in Aboriginal communities; Northern village corporations; Municipalities, regional county municipalities and municipal organizations.</td></tr>
<tr><td>Progress/Results</td><td>The SPN invited all organizations eligible for funding from the FIPN to present a project as part of the first call for projects for the financial year 2018-2019, by the deadline of 11:59 p.m. on March 9, 2018.

Two calls for projects will be made, for the financial year 2018-2019, in February 2018 and August 2018.</td></tr>
<tr><td>Contact</td><td>For more information, please contact the FIPN team:
<table>
<tr><th>Region</th><th>Public Projects</th><th>Private Projects</th></tr>
<tr><td>Nunavik</td><td>Ms. Julie Tremblay
Phone : 418 765-0163
Toll-free : 1 855 214-9807
E-mail: julie.tremblay@spn.gouv.qc.ca</td><td>Mr. Martin Loiselle
Phone: 418 748-2415
Toll-free: 1 855 214-9807
E-mail: martin.loiselle@spn.gouv.qc.ca</td></tr>
<tr><td>Roberval</td><td>Ms. Julie Tremblay
Phone : 418 765-0163
Toll-free : 1 855 214-9807
E-mail: julie.tremblay@spn.gouv.qc.ca</td><td>Mr. Patrick Lalande
Phone : 418 765-0143
Toll-free : 1 855 214-9807
E-mail: patrick.lalande@spn.gouv.qc.ca</td></tr>
<tr><td>Baie-Comeau</td><td>Mr. Ken Gagnon
Phone: 418 589-7281
Toll-free: 1 855 214-9807
E-mail: ken.gagnon@spn.gouv.qc.ca</td><td>Mr. Pierre-Luc Vézina-Labelle
Phone: 418 297-0340
Toll-free: 1 855 214-9807
E-mail: pierre-luc.vezina-labelle@spn.gouv.qc.ca</td></tr>
<tr><td>Sept-Îles</td><td>Ms. Marie-Claude Gauthier
Phone: 418 960-1805, extension 8402
Toll-free: 1 855 214-9807
E-mail: marie-claude.gauthier@spn.gouv.qc.ca</td><td>Mr. Richard Comeau
Phone: 418 960-1805, extension 8403
Toll-free: 1 855 214-9807
E-mail: richard.comeau@spn.gouv.qc.ca</td></tr>
<tr><td>Chibougamau</td><td>Ms. Julie Simone Hébert
Phone: 418 748 2817
Toll-free: 1 855 214-9807
E-mail: juliesimone.hebert@spn.gouv.qc.ca</td><td>Mr. Martin Loiselle
Phone: 418 748-2415
Toll-free: 1 855 214-9807
E-mail: martin.loiselle@spn.gouv.qc.ca</td></tr>
</table>
Please visit website: plannord.gouv.qc.ca/en/financial-support/</td></tr>
</table>

Prototype Northern Housing

Capacity Development (Ongoing)

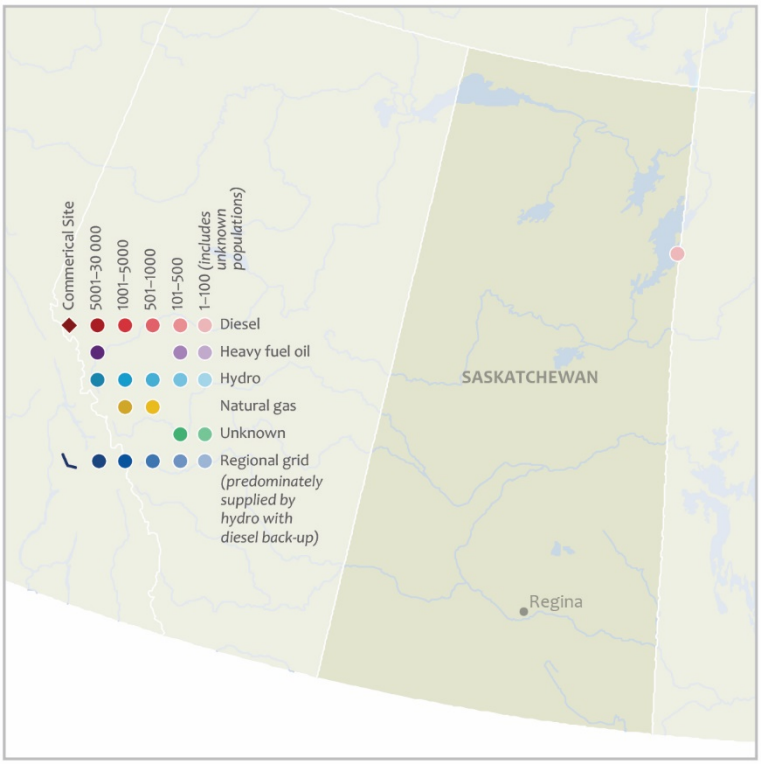
Description	The Nordic Housing Laboratory (LHN) is an initiative of the Société d'habitation du Québec, which aims for the constant and lasting improvement of housing in Northern environments, and Nunavik in particular, by creating a place for virtual exchange between different stakeholders and partners in the construction industry. The LHN use of an integrated design approach to produce a housing prototype that meets tomorrow's requirements, such as adapting the building to climate change (foundation adaption, aerodynamic improvements to counter the adverse effects of snowdrifts, improved building envelope for better heat conservation, etc.) and adapting it to suit the social and cultural lifestyle of Northerners (adaptation of interior and exterior design).
Timeframe	A design discussion took place in May 2012 and consultations on prototype design took place. In 2014, preliminary studies carried out by architects from the firm EVOQ (formerly FGMDA) and engineers from SNC-Lavalin established, using simulation software, the parameters and expectations of the thermal envelope. The architects incorporated several requests for socio-cultural adaptation and design details that meet the climatic conditions of Nunavik. In addition, the prototype is equipped with probes and measuring devices that allow remote monitoring of building performance and occupant behavior, particularly with regard to the consumption of fuel oil and electricity, as well as on the use profile of the ventilation system. Data collection is ongoing. Following the analysis of the data collected, it will be possible to determine whether the prototype building has achieved the objectives initially set. A follow-up with the tenants during the first year of occupation will also be used to collect qualitative comments. Since January 2016, the prototype has been under the management of the Kativik Municipal Housing Office (OMHK). Each of the dwellings is inhabited by a tenant family. The results obtained from data analysis and tenant monitoring will enable the SHQ to provide state-of-the-art expertise in northern housing design and make up-to-date recommendations to its partners.
Progress/Results	Two projects have been completed under this initiative. The housing prototype has been inhabited since January 2016 by two Inuit families and a Guide of good practices for construction in Nunavik was published in the winter of 2017.
Contact	E-mail : lhn@shq.gouv.qc.ca Website : habitation.gouv.qc.ca/nord/laboratoire_dhabitation_nordique.html

Standards for Buildings in the North: Measuring Energy Consumption in Nunavik

Capacity Development (Ongoing)

Description	*Transition énergétique Québec* (TEQ) has launched the instrumentation of ten (10) dwellings located in Nunavik to measure energy consumption in detail. The reduction of electricity consumption has an impact on the use of fossil fuels that are used to power the autonomous networks. These initiatives could have economic benefits for local populations. This measurement will provide quantitative models that can be used to select the optimal GHG emission reduction measures for these buildings. This data can also be shared with the scientific community. Discussions ongoing for partnerships and co-benefits with TEQ the *Société d'habitation du Québec* (SHQ), the *Société du Plan Nord and the Fonds de recherche du Québec* - Nature and Technologies (FRQNT).
Funding and Timeframe	100% of funding ($1 145 000) by Québec *Plan d'action 2013-2020 sur les changements climatiques* (PACC). Project Start: 1 April 2014 Project End: 31 March 2020
Eligible Recipients	Dwellings being monitored are located in Quaqtaq community.
Progress/Results	Research and development – Winter 2016, complete. Implementation of actions –Spring 2017, ongoing
Contact	Mathieu Payeur, ing. Titre : Directeur – Partenariats d'affaires N° tél. : 418 627-6379

Saskatchewan



Initiatives for Reducing Diesel in Remote Communities
Policy, guidance and regulatory landscape for clean technology integration
Resources and initiatives for clean technology integration

Remote Communities Profile
• 1 active remote community • Population of remote communities in Saskatchewan approx. 10

Energy Profile
Service Provider: Saskpower ~ 90 kW of total diesel generating capacity ~ 0.2345 MWh/year of total annual diesel generation ~ 4 121 910 litres of diesel consumed in 2016 • Community of Kinasoo, Peter Ballantyne Cree Nation is only accessible overland through Manitoba.[14]

[14] Remote Communities Database (2018)

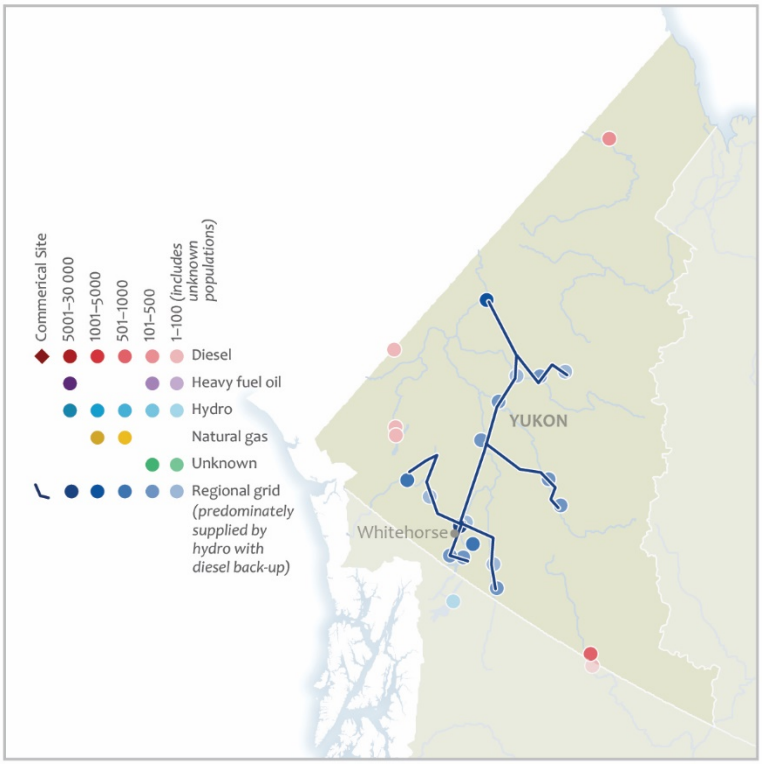
Policy, Guidance and Regulatory Landscape for Clean Technology Integration in Saskatchewan

Renewables Roadmap	Saskatchewan is committed to managing emissions by rebuilding the electricity system to meet the needs of a growing province. SaskPower has set a target of 50% of generation capacity from renewables by 2030. To achieve this goal, Saskatchewan will double the percentage of renewables in the supply mix within 15 years. Meeting this target will significantly reduce greenhouse gas emissions – about 40% below 2005 levels. It will also provide opportunities for private sector power producers. Saskatchewan aims to add 60 megawatts (MW) of utility scale solar generation by 2021.
Building a Smart Grid	SaskPower plans to build a smart grid system that will connect to all customers in the next 5-10 years. A smart grid will help Saskatchewan to reach a goal of having 50 per cent of our power come from renewable resources by 2030.

Saskatchewan – Resources and Initiatives for Clean Technology Integration

Title	Type/Status/Description	Funding/Timeframe	Eligibility	Contact Information
Small Power Producers Program	*Incentive Program* (On Hold) The Small Power Producers Program accommodates individual customers and corporate entities who wish to generate up to 100 kilowatts (kW) of electricity for the purpose of offsetting power that would otherwise be purchased from SaskPower or for selling all of the power generated to SaskPower.	The small power producer is responsible for the cost of connection, commissioning and the meter installation. A quote for these costs will be provided as part of the Interconnection Study. The 2017 program price that we will pay for electricity is 10.82¢/kWh. This price will increase at a rate of two per cent each year after that.	Residents and businesses building facilities that use environmentally preferred technologies. The total nameplate kW capacity of all generators for each project must be below 100 kW.	Website saskpower.com/efficiency-programs-and-tips/generate-your-own-power/self-generation-programs/small-power-producers-program/
Net Metering Program	*Incentive Program* (Ongoing) The Net Metering program will help residents, farms, and business get started with renewable generation and help cover some of the initial costs.	Program participants receive for a one-time rebate until Nov. 30, 2018 (equivalent to 20 per cent of equipment and installation costs to a maximum payment of $20,000). Excess power is credited at the same rate as the purchase power. Unused power is banked as credit in a SaskPower account for up to one year.	Residents, farms and businesses with the ability of generating up to 100 kW (dc) capacity. Eligible technologies: Solar, Wind, Biogas and Biomass, Flare Gas, Heat Recovery, Low-Impact Hydro.	Website saskpower.com/efficiency-programs-and-tips/generate-your-own-power/self-generation-programs/net-metering-program/

Yukon



Initiatives for Clean Energy Technology Integration
Policy, guidance and regulatory landscape for clean technology integration
Initiatives for Reducing Diesel in Remote Communities
Good Energy Yukon
Micro-Generation Program
Rural Electrification and Telecommunications Program
Wind Prospecting Service

Remote Communities Profile

- 22 active remote communities
- Population of remote communities in Yukon approx. 38 641

Energy Profile

Service Provider: Yukon Energy Corp. (generation and some distribution on regional grid), ATCO (generation and distribution on both regional grid and in diesel communities)
~ 53,400 kW of total diesel generating capacity (including backups)

- ~7500 kw total diesel generating capacity where diesel is the main power source

~ 26 800 MWh/year of total annual diesel generation
~ 6 053 654 litres of fuel (diesel and natural gas) consumed in 2016 for electricity generation

- 5 remote communities rely on diesel as the main power source.
- 17 remote communities are connected by Yukon Energy Corp. regional grid.
- 97% of Yukon Energy Grid is powered by 4 hydro electric generating stations.[15]
- 4 diesel and 1 liquefied natural gas station are also connected for back-up and peak usage.

Oil is the primary heating source for all of Yukon's communities.[16]

[15] Yukon Energy Corp. - yukonenergy.ca/energy-in-yukon/electricity-101/quick-facts
[16] Remote Communities Database (2018)

Policy, Guidance and Regulatory Landscape for Clean Technology Integration in Yukon

Biomass Energy Strategy	The Yukon government has adopted and is currently implementing the Yukon Biomass Energy Strategy. The goal of this strategy is to facilitate the development of a biomass energy sector to help heat buildings and homes using wood, Yukon's primary biomass resource.
Independent Power Production	The Independent Power Production Policy complements the government's Micro-Generation Program. It allows for the generation of energy from renewable sources on a larger scale. The policy is now in the implementation design phase with an implementation target date of January 2019.
Renewable Energy Directory	A directory of Yukon-based providers of renewable energy and energy efficient products and services. It presents a mix of private companies, government agencies and non-profit, non-government agencies.
Solar Panel PV Calculator	Estimates the financial outcomes related to installing a Yukon grid-connected photovoltaic system.

Good Energy Yukon

Incentive Program (Ongoing)

Description	Electricity generating systems that use renewable energy are eligible for up to $5,000. Renewable energy systems include solar photovoltaic (PV), wind, hydro, biomass and geothermal electrical generating systems.
Funding and Timeframe	Incentive is $800/kW to a maximum of $5,000 The program is stackable with the micro-generation program. Maximum one micro-generation installation per residential electrical meter per fiscal year.
Eligibility	Eligibility criteria: • System must be a residential installation. • Grid-tied systems must be approved under the Government of Yukon's micro-generation program. • Off-grid systems must pass the final electrical inspection.
Progress/Results	As of FY 2017-18, 151 rebates have been issued under this program.
Contact	E-mail: energy@gov.yk.ca Phone: 867-393-7063 (toll free): 1-800-661-0408 ext. 7063 Website: goodenergyyukon.ca/energy-systems

Micro-Generation Program

Incentive Program (Ongoing)

Description	Micro-generation refers to small-scale generation of electric power. It can be used to supplement power from the grid or as an alternative source of energy. Where system size allows, surplus generation is exported to the grid for annual reimbursement. Under the micro-generation program, Yukoners can offset their electrical consumption by connecting renewable energy technologies to their homes or businesses while remaining connected to Yukon's electrical grid.
Funding and Timeframe	$0.21/kWh reimbursed for systems connected to the Yukon hydro system. $0.30 /kWh reimbursed for communities powered by diesel. Stackable with the Good Energy Yukon program.
Eligibility	Utility customers in residential, general service and industrial classes can participate. Systems over 5 kilowatts require pre-approval through the Energy Solutions Centre. Without pre-approval, clients may incur the substantial additional expense of a utility infrastructure upgrade.
Progress/Results	As of FY 2017-18, 146 solar photo voltaic systems have been added to Yukon's grid with a total peak generating capacity of 1.2 MW.
Contact	E-mail: energy@gov.yk.ca Phone: 867-393-7063 (toll free): 1-800-661-0408 ext. 7063 Website: energy.gov.yk.ca/microgeneration.html

Rural Electrification and Telecommunications Program

Capacity Development (Ongoing)

Description	The Rural Electrification and Telecommunications Program offers rural Yukoners an affordable and convenient way to have electrical or telephone service extended to their home where it might not otherwise be practical or possible. The program includes cost sharing agreements between the Yukon government and clients in order to make electrical connection more affordable. Agreements can also be determined for stand-alone alternative energy systems.
Funding and Timeframe	The Yukon government has set a ceiling on the amount of financing it will make available for individual projects. The ceiling is equivalent to 25% of the assessed value of the property, or group of properties in a defined area, that a proposed project will serve. Yukon property values are assessed each year by the Yukon government for property taxation purposes, and may differ from private real-estate market values. In some cases, service may be brought in for a group of properties in a defined geographic area. Property-owners in the project area who do not want to immediately hook-up their individual properties to the new system can defer payment of the local improvement charge: • for a period of 15 years • until they hook-up to the service; or • until the property is sold Local Improvement Charge Deferral Agreements are filed with the Land Titles Office to register the Yukon government's financial interest in the property. This program does not apply to specific municipalities that are already grid connected (ie. Whitehorse, Mayo, Faro, Dawson City, and others.)
Eligibility	Rural residential property owners whose properties are within the Yukon government's property taxation authority.
Progress/Results	As of FY 2017-18, 74 solar photovoltaic systems have been cost shared through this program.
Contact	Kelly Eby – Director, Property Assessment and Taxation E-mail: kelly.eby@gov.yk.ca Phone: 867-667-5234 Website: community.gov.yk.ca/property/ruralelec.html

Wind Prospecting Service

Capacity Development (Ongoing)

Description	This service helps to determine if wind speeds are high enough to generate wind energy on a consistent basis for Yukon residents. The program connects residents with a wind energy specialist to assess a property's suitability. If a location is suitable, a legal agreement is signed with the Energy branch in order to allow a contractor to install, maintain and remove a wind monitoring station. The Government of Yukon will monitor the site for one year following the set up of a tower and meteorological equipment. At the end of a monitoring period, a follow up meeting with the wind energy specialist will occur to discuss the wind assessment contractor's report and the next steps for developing wind generation on the property.
Eligibility	Yukon residents looking to construct wind energy generators to power their homes.
Progress/Results	The program has existed since 2010. The wind prospecting service has recorded data since the start of the program to assess and monitor the viability of wind energy.
Contact	E-mail: energy@gov.yk.ca Phone: 867-393-7063 (toll free): 1-800-661-0408 ext. 7063 Website: energy.gov.yk.ca/wind_prospecting_service.html