



Government
of Canada

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Federal Clean Energy Support Programs for Canada's North

*Arctic Energy and Emerging
Technologies Conference
June 2018*

Presenters:

- Stephan Van Dine, Assistant Deputy Minister, Northern Affairs, Crown-Indigenous Relations and Northern Affairs
- Stephanie Zimmerling, Policy Advisor, Natural Resources Canada



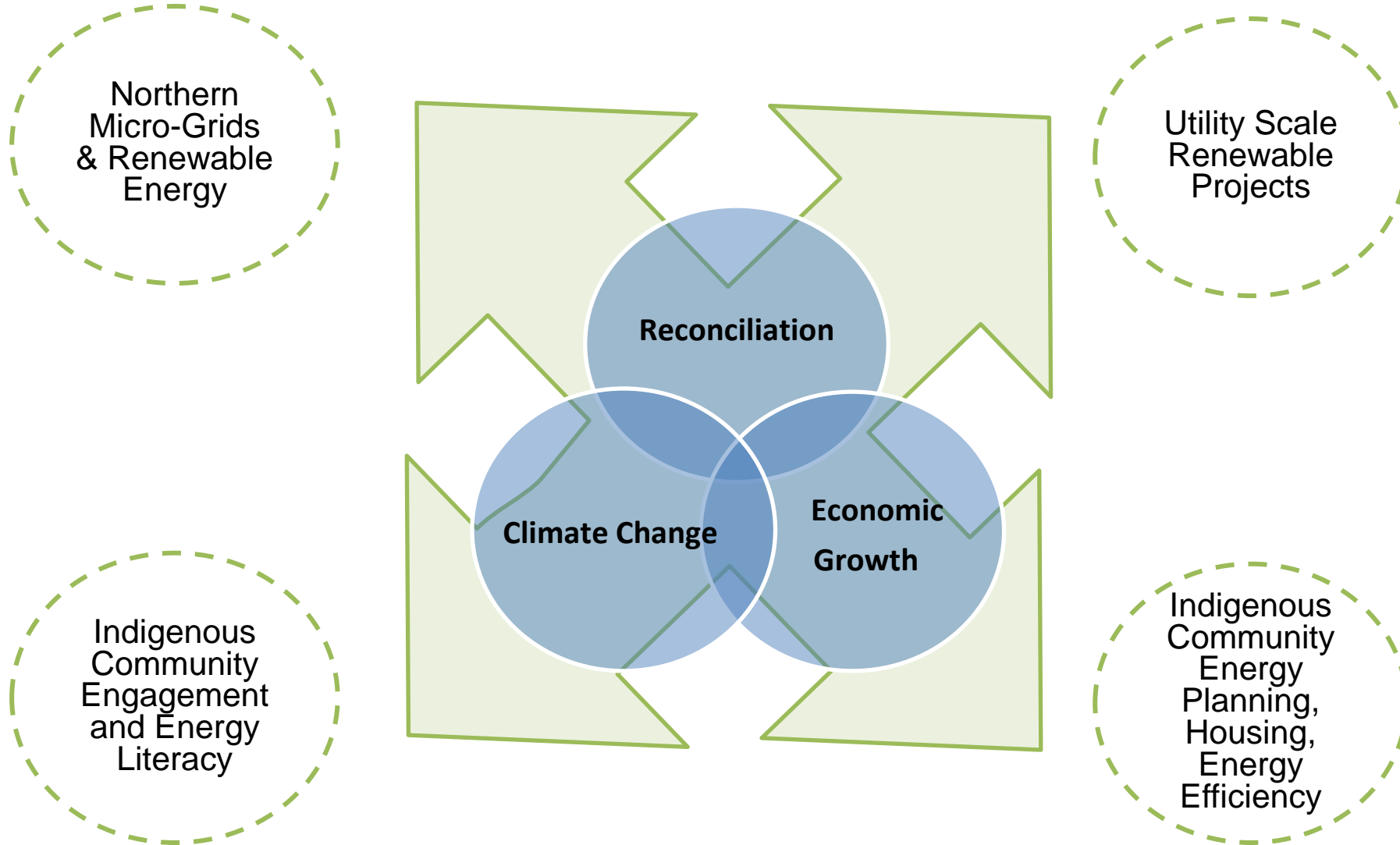


Overview

1. Introduction
2. Pan-Canadian Framework
3. Federal Coordination
4. Federal Funding
5. Program Contacts



Today's Discussion is Timely



Aligned with and supported by Government of Canada Priorities and Initiatives

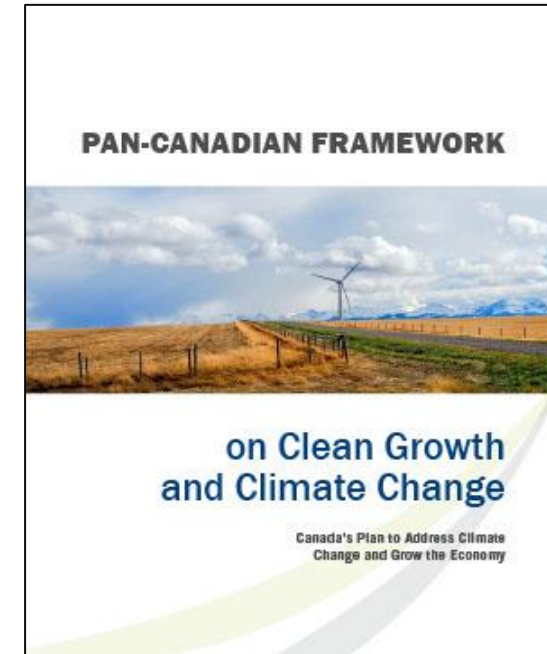


Pan-Canadian Framework on Clean Growth and Climate Change (PCF)

Canada's plan – developed with the provinces and territories and in consultation with Indigenous peoples – to meet our emissions reduction target and grow the economy.

Pillars of the PCF

1. Pricing carbon pollution
2. ***Complementary measures to reduce emissions***
3. Adapt and build resilience
4. Accelerate innovation





Federal Coordination

Federal coordination will underpin efforts in key areas:

Governance	<ul style="list-style-type: none"> • Coordination of program funding (NRCan, CIRNA, ISC and others) through an established interdepartmental working group, with reps from INFC and ECCC to ensure coordination. • INFC and ECCC funding delivered through P/Ts; their governance structures have representation from NRCan and INAC
Program design and delivery	<ul style="list-style-type: none"> • INAC and NRCan programming is flexible (recipients, stacking limits, etc.) and can fill a gap and complement other federal investments – can lever other sources of funds including private sector • “No wrong door” to ease the burden on applicants / help projects find the best place for federal support
Project review and selection	<ul style="list-style-type: none"> • Project concept questionnaire and call for full project proposals will fill project pipelines • Interdepartmental review committee will assess full proposals to direct programming
Communications	<p>Reducing Diesel in Remote Communities Portal</p> <ul style="list-style-type: none"> • Clearing house for off-diesel and related programming • Triaging and directing project proponents <p>https://www.canada.ca/en/services/environment/weather/climatechange/climate-action/actions-reduce-emissions/reducing-reliance-diesel.html</p> <ul style="list-style-type: none"> • Efforts will be presented in a unified and strategic manner



Programs Focused on Northern, Rural and Remote Communities

Crown-Indigenous Relations and Northern Affairs:

- \$54M/10 years to continue the *Northern Responsible Energy Approach for Community Heat and Electricity Program* (Northern REACHE)

Natural Resources Canada:

- \$220M/6 years *Clean Energy for Rural and Remote Communities*
- \$75M/4 years *Impact Canada Initiative*
- \$10M/3 years *Indigenous Forestry Initiative (IFI)*

Infrastructure Canada:

- \$400 million/10 years for the *Arctic Energy Fund*
- \$2.0 billion/10 years for *Rural and Northern Communities Infrastructure*

Canadian Northern Economic Development Agency (CanNor)

- *Strategic Investments in Northern Economic Development (SINED)*

Polar Knowledge (POLAR) :

- *The Science and Technology Program*



Crown-Indigenous Relations and Northern Affairs

Northern REACHE Program

(Responsible Energy Approach for Community Heat and Electricity)

- **Funding:** \$10.7 million over two years (starting in 2016-2017) and \$53.5 million over 10 years (starting in 2018-2019), plus \$5.4 million ongoing
- **Objective:** reduce Northern communities' reliance on diesel for heating and electricity by increasing the use of local renewable energy sources and energy efficiency
- The program provides funding for:
 - Planning and construction of renewable energy and energy efficiency projects in the *Yukon, Northwest Territories, Nunavut, Nunavik, and Nunatsiavut*
 - Capacity building within northern communities, governments, and organizations (e.g., community or regional energy planning, participation in skills development initiatives related to clean energy; engagement; dedicated local/ regional resources)
- The program works closely with regional stakeholders to identify, prioritize, and fund projects. Proposals are accepted on an on-going basis.



Northern REACHE Program Example Projects



Aklavik, NWT – Solar PV Integration with Variable Speed Generator (VSG)

- 55 kW solar PV system
- Integration with Variable Speed Generator
- VSG allows for higher penetration renewables into grid without need for storage (battery)



City of Iqaluit, NU – Extension of District Heating System

- Capture waste heat off diesel generator and pipe through district heating system
- The expansion to Aquatic Centre to be completed in 2018
- Estimated to provide 70-85% heating requirements



ARCTIC RENEWABLE ENERGY NETWORK ACADEMY

- A circumpolar knowledge exchange program
 - Integrates web-based seminars with classroom learning and field experience
 - led by GCI, Canada, US, Iceland and Finland

- ARENA provides an opportunity for northern energy champions to:
 - gain renewable energy literacy
 - promote leadership
 - develop local economy, and
 - deploy Indigenous and local knowledge



ARCTIC RENEWABLE ENERGY NETWORK ACADEMY

Twenty individuals were selected to participate in the program, represented by:

- 4 Arctic states
- 3 Permanent Participant Organization
- 1 Observer Organization

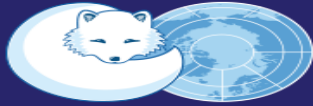
Each of the three geographic location was required to focus on key individual elements of clean energy generation:

- Yellowknife, NWT, Canada (solar, wind)
- Fairbanks, Alaska, US (hydro, wind)
- Reykjavik, Iceland (geo-thermal)





Sustainable Development
Working Group



ARCTIC COUNCIL





NRCan’s Clean Energy for Rural and Remote Communities Program

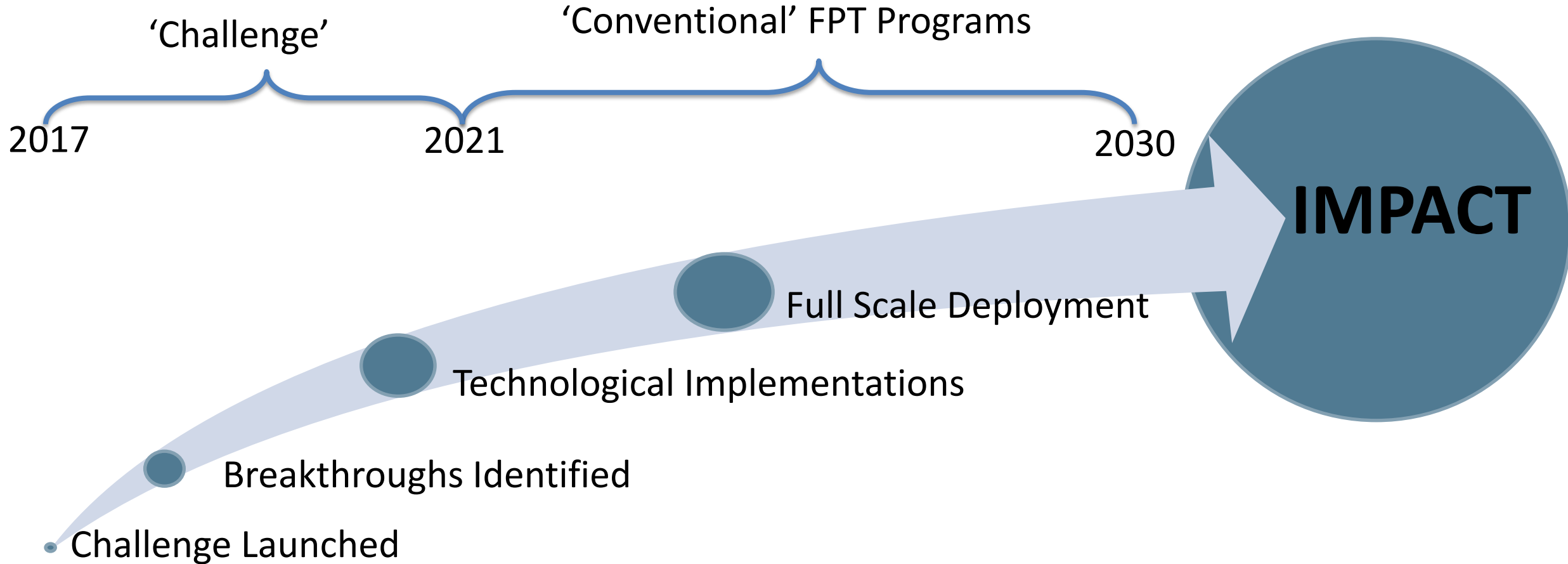
- Funding: \$220M over six years (starting April 2018)
- **Objective:** reduce reliance on diesel in rural and remote communities, and industrial sites, by supporting the transition to renewable energy solutions and encourage energy efficiency.

- Competitive application process looking for projects with:**
- ✓ Community engagement and involvement
 - ✓ Indigenous partnerships
 - ✓ Clean environmental benefits
 - ✓ Strong plan and experienced team
 - ✓ Ideally, support from province/ territory and utility/service provider

Stream	Element(s)	Milestones
1	Renewable Energy Project Stream <ul style="list-style-type: none"> • Deployment of renewable electricity technologies (\$90M) • Demonstration of innovative clean energy projects (\$60M) • Deployment of proven bioheat technologies (\$55M) 	<ul style="list-style-type: none"> • RFP closes May 17, 2018 • Continuous intake after this date
2	Capacity building (\$10M)	<ul style="list-style-type: none"> • First call for preliminary ideas closed April 10, 2018. Short list invited to submit full proposals • Second call for preliminary ideas later in 2018



Impact Canada: Diesel Reduction Breakthrough





Natural Resource Canada's *Indigenous Forestry Initiative (IFI)*

The IFI supports forest-based Indigenous economic development and participation in clean technology and the forest bioeconomy; environmental stewardship; as well as use and management of forest resources.

The IFI typically funds:

- Feasibility studies
- Business plans
- Capacity building activities.

IFI Regional Liaison Officers (listed on the Web site) are available to facilitate the development of projects and partnerships, and/or to advise on the preparation of an IFI Application.

Applicants may apply on an continuous basis and proposals are competitively assessed. Applications received before **June 15, 2018 , 23:59 PST** will be evaluated for the first round of funding approvals.

Since 2011, the IFI has supported more than 112 Indigenous communities and over 60 project partnerships.

Program Web site: <http://www.nrcan.gc.ca/forests/federal-programs/13125>

Email: nrcan.ifi-ifa.nrcan@canada.ca



Canadian Northern Economic Development Agency (CanNor)

- CanNor is the Regional Development Agency for the North
- Budget 2018 identified ongoing support for Strategic Investments in Northern Economic Development (SINED). SINED priority funding areas for 2019-19 are:
 - Innovation
 - Economic Growth and Diversification
 - Capacity Development
 - Economic Infrastructure
- CanNor's Northern Aboriginal Economic Opportunities Program (NAEOP) seeks to increase the participation of northern Indigenous communities and businesses in economic opportunities
- Through both programs, CanNor has funded development projects in the areas of wind, biomass, and solar
- Interested parties are encouraged to contact their regional CanNor office(Whitehorse, Yellowknife and Iqaluit)



Infrastructure Canada

Investing in Canada Infrastructure Plan (ICIP)

Arctic Energy Fund (\$400 million)

- Available for projects in fossil-fuel dependent communities in the territories that result in improved energy efficiency and reliability, including through deployment of renewable energy, with a focus on energy security

Arctic Energy Fund	
NU	\$175 M
NWT	\$175 M
YK	\$50 M

Rural and Northern Communities Infrastructure Stream (\$2 billion)

Available for projects in territories and in rural communities in provinces that result in:

- Improved food security
- Improved & more reliable transportation (road, air, marine)
- Improved broadband connectivity
- Improved education and health facilities (Indigenous communities)
- More efficient and reliable energy through deployment of renewable energy



National Federal Clean Energy Programming

Environment and Climate Change Canada: \$2B *Low Carbon Economy Fund*

1. *Leadership Fund* - \$1.4 billion to Provinces and Territories that have adopted the PCF, to help them deliver on leadership commitments to reduce GHG emissions.
2. The remainder of LCEF funding is for the *Low Carbon Economy Challenge* and implementation of the Framework.

The Challenge will support ambitious projects that can be submitted by all provinces and territories, as well as municipalities, Indigenous governments and organizations, businesses and both not-for-profit and for-profit organizations.

Infrastructure Canada: \$9.2B *Investing in Canada Infrastructure Plan* - Green Infrastructure Stream Funds improvement of environmental quality, reduction of GHG emissions and increased resilience of communities.



Clean Growth Hub

- Launched in January 2018, the Clean Growth Hub is a new federal organization that supports **clean technology stakeholders** and project proponents
- The Hub is **all about client service** – helping prospective proponents navigate the federal clean technology landscape
- Interdepartmental organization is co-led by NRCan and ISED, with **co-located staff** from multiple departments/agencies with interests in clean technology
- <http://www.ic.gc.ca/eic/site/099.nsf/eng/home>





Program Contacts

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Innovation, Science and Economic Development Canada:

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