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# Arctic Sustainable Energy Research Conference: **Supporting the Transition of Remote and Indigenous Communities to a Clean Energy Future**

Meaghan Bennett, Natural Resources Canada

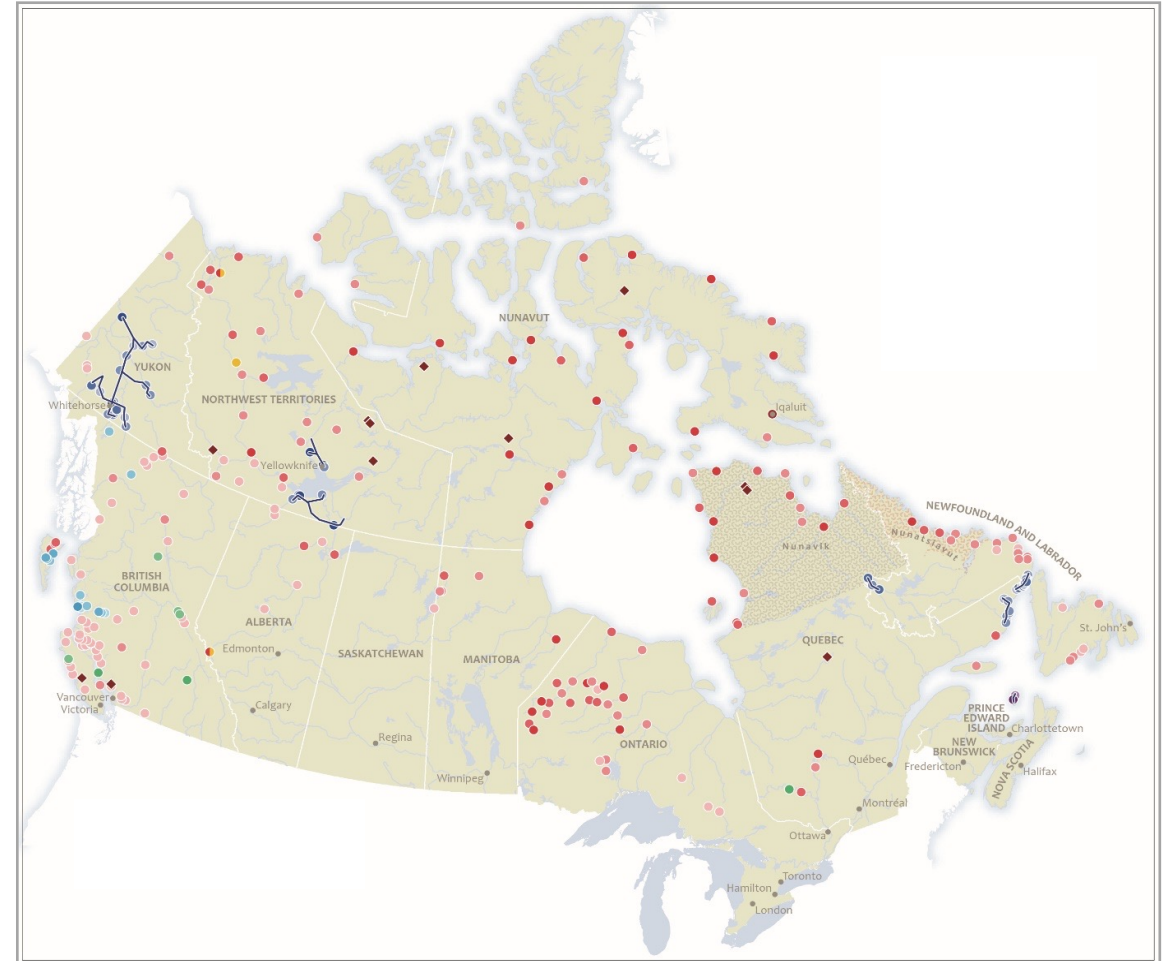
April 22<sup>nd</sup>, 2021

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# Diesel Reliance in Remote Communities in Canada

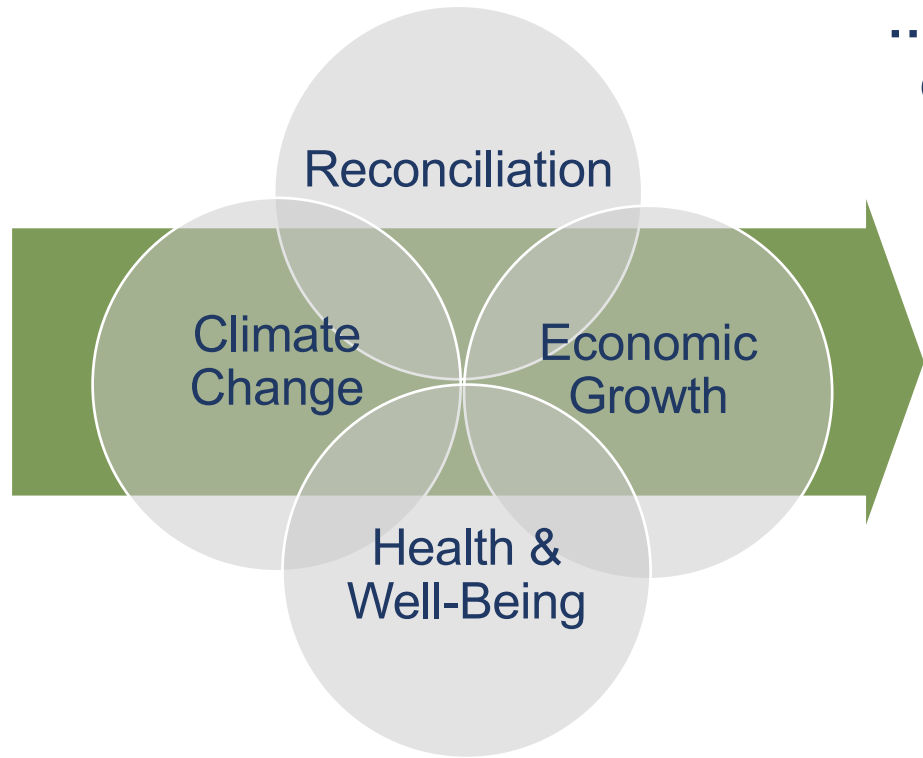
- ~200 communities reliant on diesel for heat and power (~70% Indigenous).
- Communities are geographically dispersed, with varying needs and resources, no one size fits all solution.
- The Government of Canada has committed to support the transition of Indigenous communities from reliance on diesel to clean, renewable and reliable energy by 2030.



# Supporting remote communities reduce their reliance on diesel fuel is an important federal priority & commitment

## Moving from diesel fuel...

- Sourced outside the community
- GHG emissions
- Spills, local pollution & contaminated sites
- Costly to supply and maintain
- Aging infrastructure and breakdowns



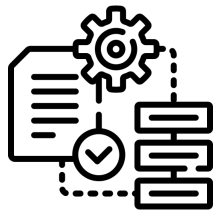
## ...to renewable energy, energy efficiency and conservation

- Harness local resources
- Improve health & environmental outcomes
- Create local economic opportunities
- Build local capacity and knowledge
- Support energy independence

# Program Design and Priorities



- **Support the transition of Indigenous and remote communities from reliance on diesel to clean, renewable and reliable energy**



- **NRCan programs/activities:** Clean Energy in Rural and Remote Communities program, Indigenous Off-Diesel Initiative, R&D led by CanmetENERGY



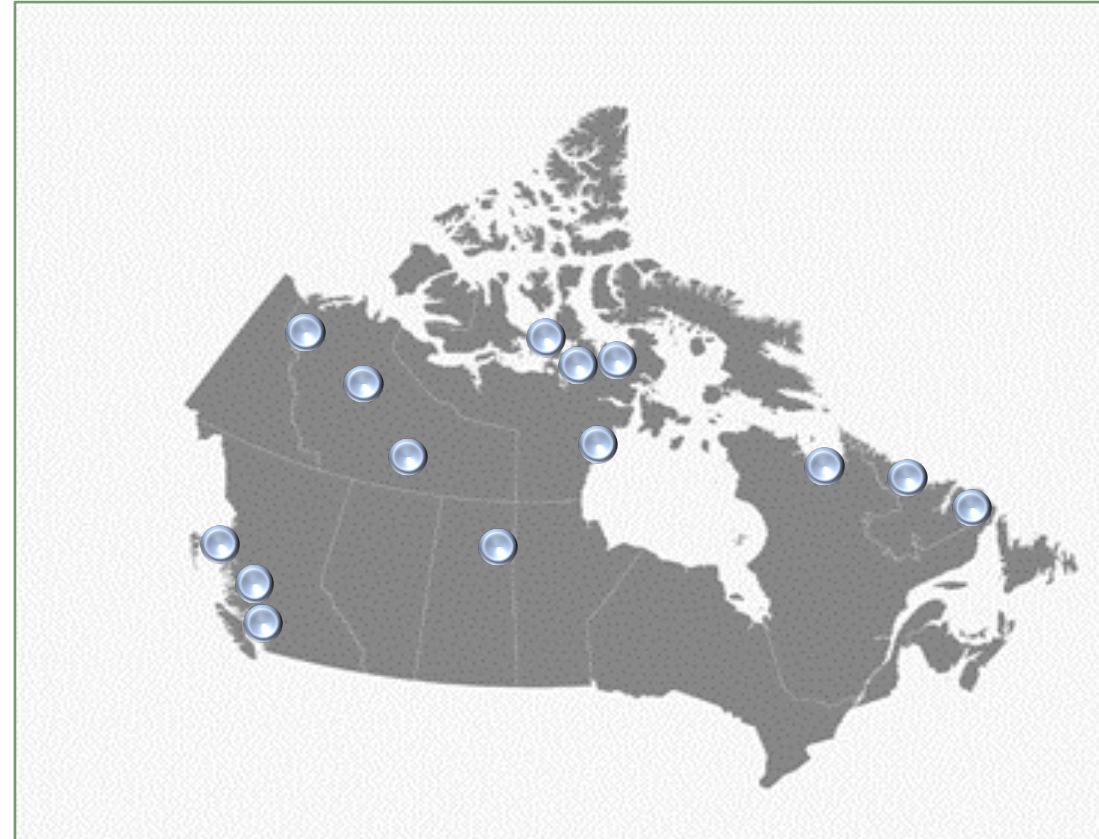
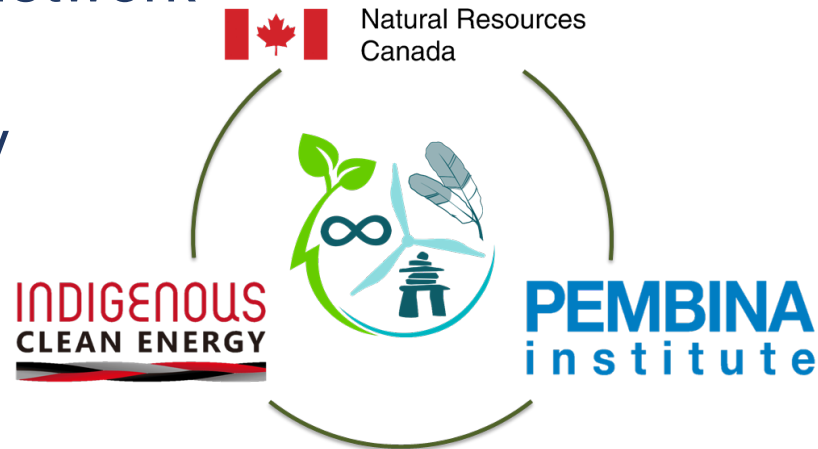
- **Indigenous and Community led** projects: increasing self-determination & focus on supporting local expertise building



- **Support can look like:**
  - Resources (e.g. funding for salary or training)
  - Technical review for project proposals & plans
  - Community, regional, & national level training and networking
  - Mentors
  - Tailored clean energy training

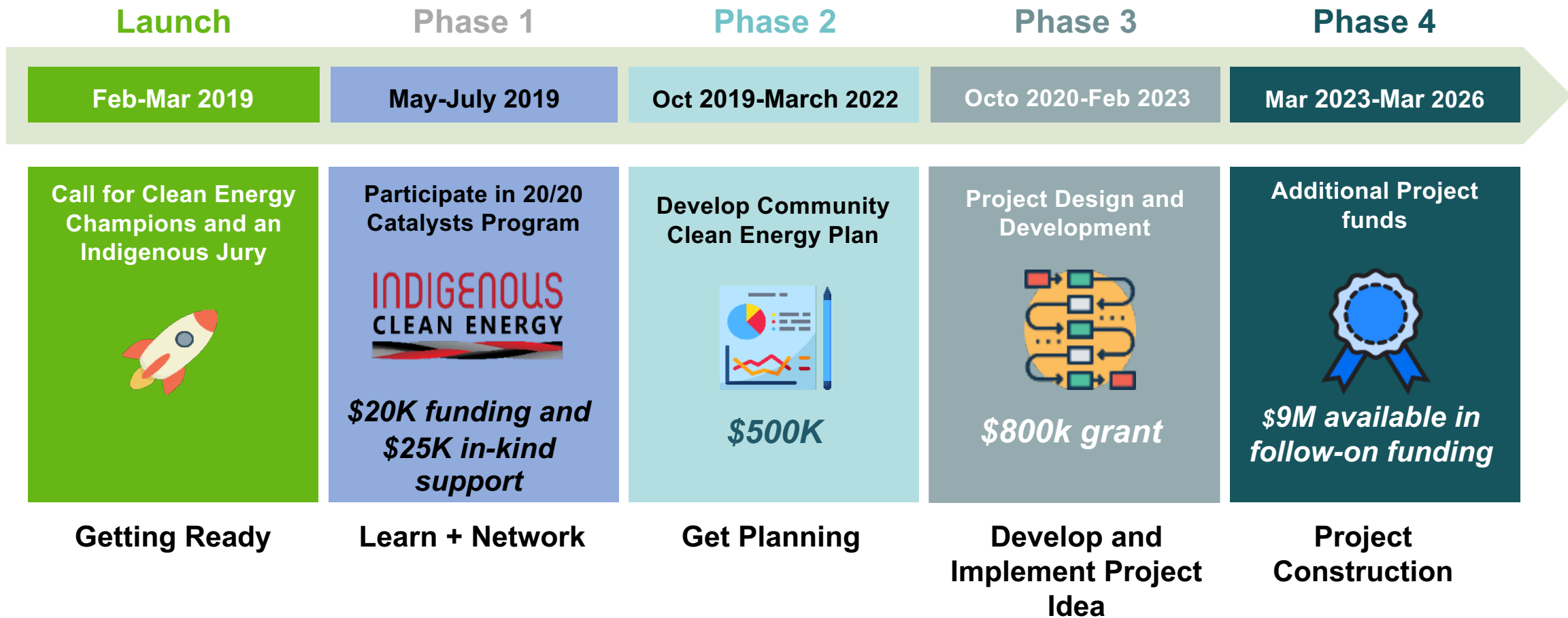
# Case Study: Indigenous Off-Diesel Initiative

- \$20M over 4 years
- 14 Indigenous Clean Energy Champions in remote communities:
  - Tailored clean energy training
  - Mentors
  - Peer-to-peer network
  - Resources
- Indigenous Jury
- Working with partners and collaborators



# Case Study: Indigenous Off-Diesel Initiative

## A multi-phase approach





# Case Study: Clean Energy for Rural and Remote Communities Program (CERRC)



**Program Objective:** promote a transition to a more sustainable and clean energy future by supporting projects that reduce reliance on diesel in Canada's rural and remote communities and industrial sites.

## Funding

\$220M over eight years (2018-2026) to support renewable energy and capacity building projects.

## Streams

- **BioHeat** - \$55M
- **Demonstration** – \$60M
- **Deployment** – \$90M
- **Capacity Building** – \$10M

## Focus

- **Innovative demonstrations**
- **Renewable energy for power and heat**
- **Skills development**

Program website: <http://www.nrcan.gc.ca/energy/science/programs-funding/19791>



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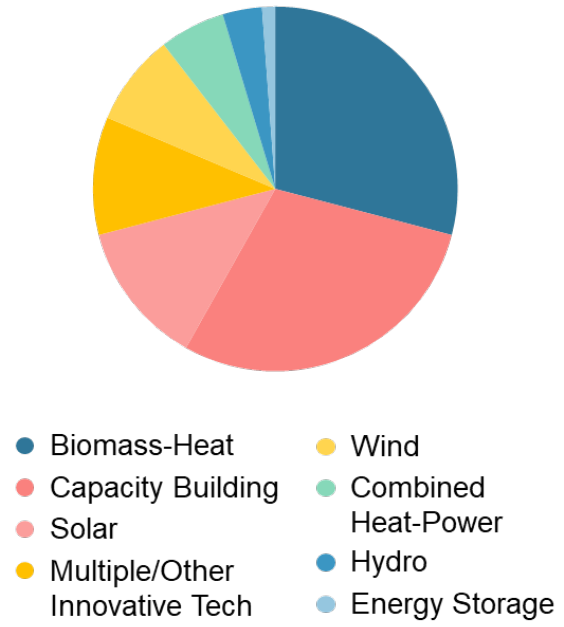
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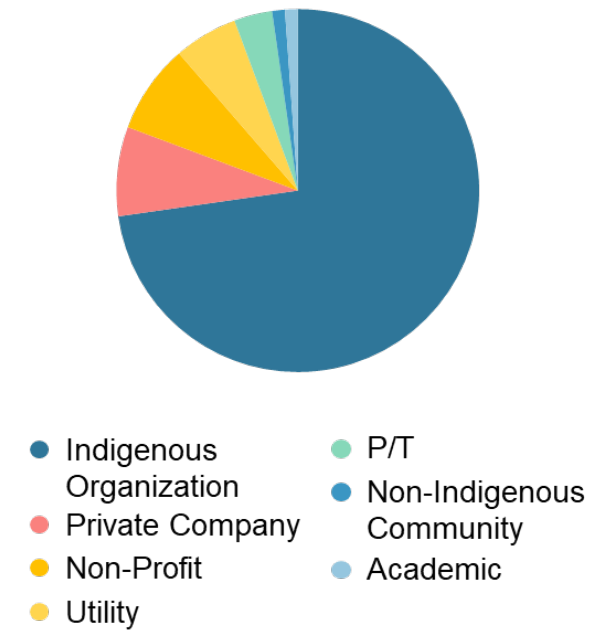
# Case Study: Clean Energy for Rural and Remote Communities Program (CERRC)



### Distribution by Tech Type



### Applicant Type





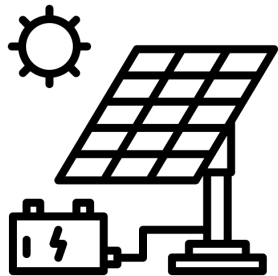
# CanmetENERGY – National Energy Labs



- **ReCREAT:** renewable energy modelling tool to support communities decision making



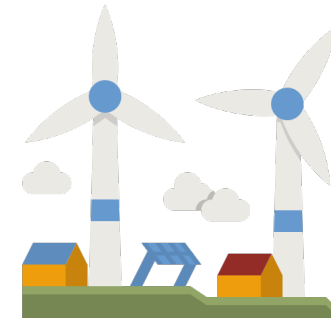
- **Northern Housing:** research to support more resilient, energy efficient and affordable housing



- **Wind, Solar, Storage & Microgrid technologies:** Technology-neutral analysis and modelling to support communities

# Lessons Learned & Looking Forward

- Importance of Indigenous & community led projects
- Inclusive & accessible funding with flexibilities
- Longer timelines for projects
- Early & on-going engagement and prioritization of co-development
- Relationship focus & continual learning
- Additional \$300M announced in December 2020



# Questions?

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