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Presentation on the Remote Communities in Canada and the Remote Communities Energy Database

By Kevin Force
Natural Resources Canada

Canada The wordmark logo for Canada, featuring a small red maple leaf above the letter 'a'.

Canada: An Introduction

- Second largest country on the planet
- Diverse climates with temperature extremes
- Highly decentralized governance
- Energy and electricity are primarily the responsibility of the provinces and territories



Inuvik, NT

No Alerts in effect

▼ Current Conditions

[Past 24 hours](#)

[Weather Radar](#)

[Satellite](#)

[Lightning](#)



-38°C

°C | °F

Observed at: **Inuvik Airport**

Date: **2:00 PM MST Monday 8 February 2021**

Condition: **Ice Crystals**

Pressure: **105.8 kPa**

Tendency: **Rising**

Temperature: **-37.8°C**

Dew point: **-41.5°C**

Humidity: **69%**

Wind: **W 6 km/h**

[Wind Chill](#): **-45**

Visibility: **24 km**

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Canada's Transmission System

- Over 160,000 km of transmission grid
- 99.7% of the population grid connected



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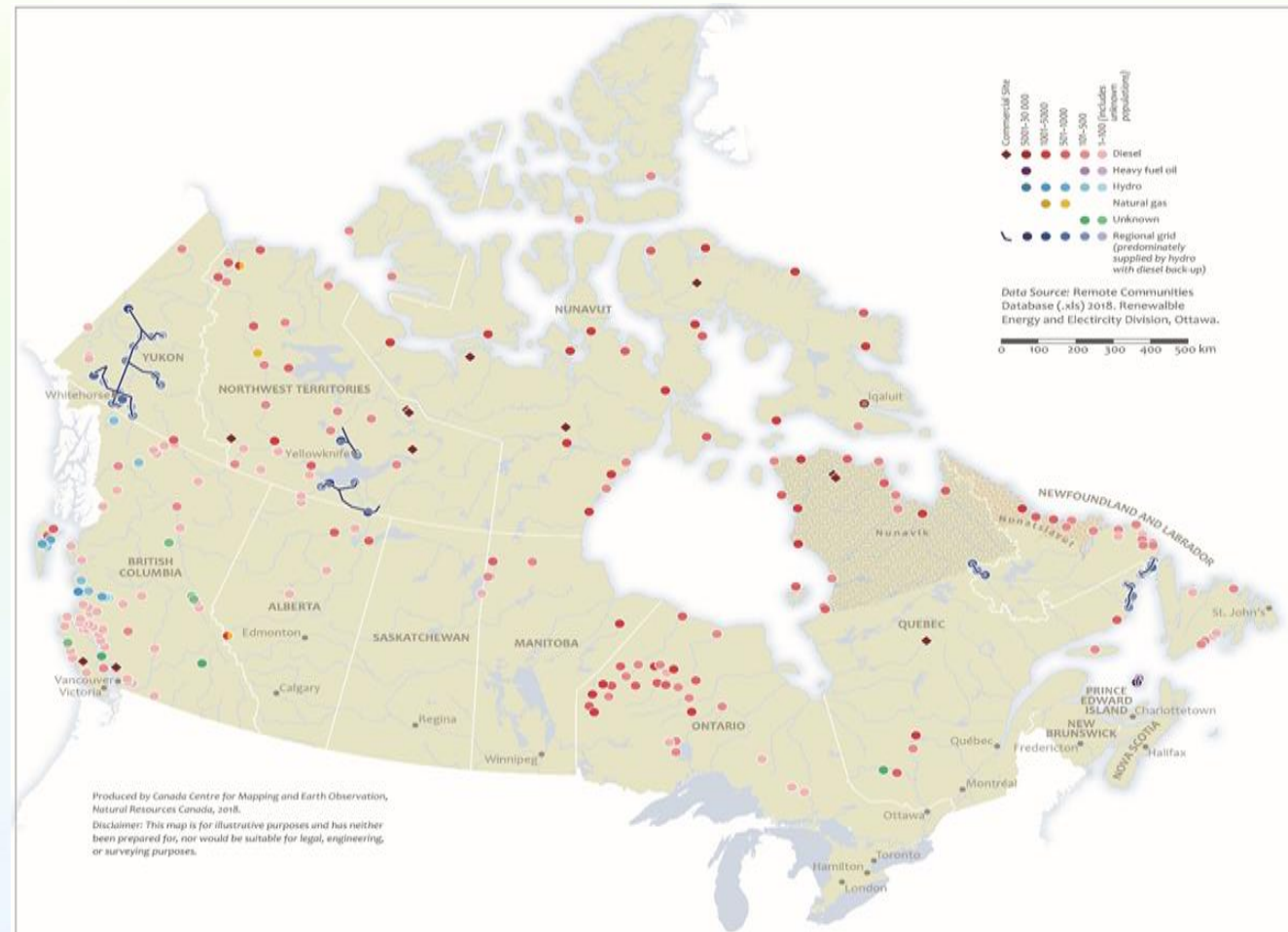
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Remote Communities in Canada

- Communities are identified as remote communities if they are not currently connected to the North-American electrical grid nor to the piped natural gas network; and is a permanent or long-term (5 years or more) settlement with at least 10 dwellings.
 - ~280 remote communities
 - 200 communities rely on diesel for heat and power (~70% are Indigenous), hundreds more rely on diesel for heat and backup power



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Utilities that operate in remote communities in Canada

- There are twelve utilities that operate in remote communities across Canada
 - 9 crown corporations
 - 3 ATCO Subsidiaries
 - ~40 independent community run local utilities or Indigenous Energy Authorities



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Challenges faced by utilities that operate in remote communities across Canada

- Extreme weather conditions
- Long, expensive and seasonally unreliable transportation routes
- Unpredictable diesel and LNG prices
- Aging infrastructure and high upfront capital replacement costs
- Limitation of technical expertise in emerging clean technologies
- Debt Caps
- Growing demand for electricity, limited new generation options
- Political and regulatory pressure to keep electricity rates low
- Limited customer base

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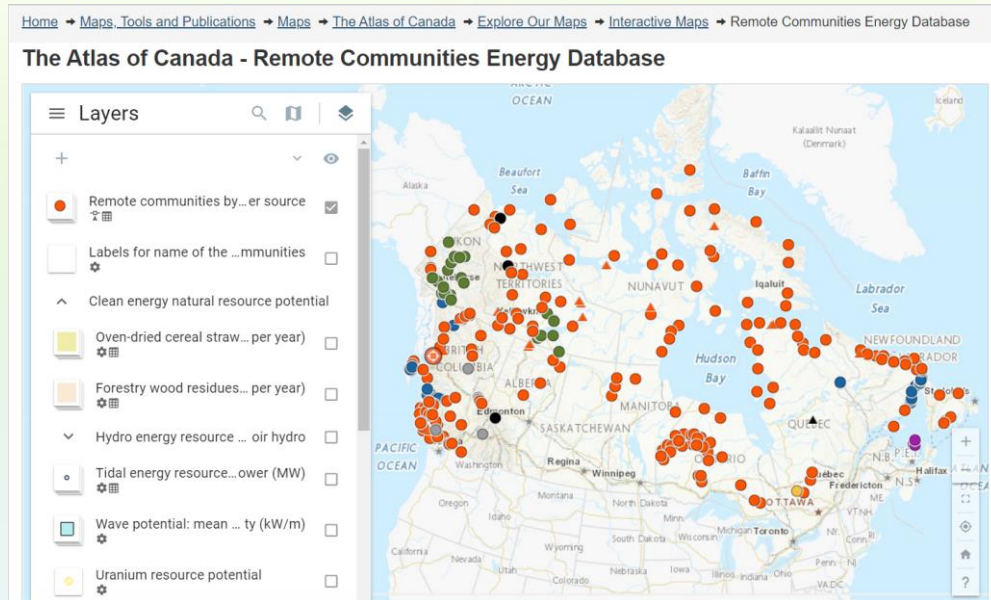


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Remote Communities Energy Database Access



Standalone Interface:

- <https://atlas.gc.ca/rced-bdece/en/index.html>

Open Government Portal

Found 233 records

Clear all choices

Download Search Results

Open Data Portal Catalogue Dataset

Suggest a Dataset

Organization

Portal Type

remote communities energy database Order By Best match

Remote Communities Energy Database

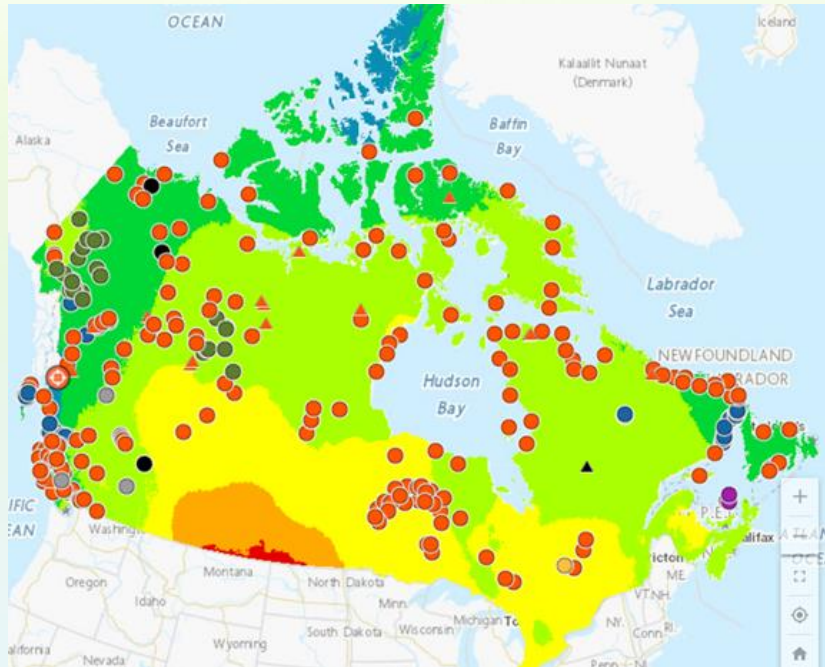
Federal

The **Remote Communities Energy Database** is a public resource that provides pertinent factual information about the generation and use of electricity and other **energy** sources for all **remote communities** in Canada. **Communities** are identified as **remote communities** if they are not currently connected to the North-American electrical grid nor to the piped natural gas network; and is a permanent or long-term (5 years or more) settlement with at least 10 dwellings. The **Remote Communities Energy Database** is the only national data source on **energy** in **remote**

Open Government Portal

- <https://open.canada.ca/data/en/dataset/0e76433c-7aeb-46dc-a019-11db10ee28dd>

Remote Communities Energy Database



The Atlas of Canada - Remote Communities Energy Database

Feature details

Remote communities by main power so... [X]

Inuvik

OBJECTID	308
Community name	Inuvik
Alternative community name	
Province/Territory	NT
Community record status	Active > Single community off-grid
Community type	Settlement
Latitude (°)	68.36569
Longitude (°)	-133.71518
Community classification	Indigenous
Indigenous category	Inuit
Is there year-round road access to this community?	Yes
Is this a fly-in community?	No
Population	3243

More information

You can download the most recent dataset from the Remote Communities Energy Database in [CSV format](#) (62 KB, CSV) or in [compressed CSV format](#) (12 KB, ZIP). For more information, to report data errors, or to suggest improvements to this application, please contact us at: NRCan.rcdadmin-adminbce.RNCan@Canada.ca.

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Challenges Collecting Data for the Remote Communities Energy Database

- Community identification/definition/status changes
- Participation from stakeholders
- Heating data
- Commercial operations/Industrial Projects
- Proprietary information vs public information
- Updates

Where is the data?

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Why is the RCED important?

- Data informs public policy
- Public access to data
- Stakeholder awareness and data sharing



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Recent Federal Policies and Programs that are linked to the RCED

- The **Clean Energy for Rural and Remote Communities (CERRC)** program (\$220M)
- The Government of Canada has committed to help **transition Indigenous communities from diesel to clean, renewable and reliable energy by 2030**
- \$300M commitment to **future programming** to support communities transition away from diesel dependence

Indigenous-owned solar farm opens in remote northern Alberta community



Fort Chipewyan's remote solar farm largest of its kind in Canada, federal government says

Jordan Omstead · CBC News · Posted: Nov 19, 2020 6:00 AM MT | Last Updated: November 19



The Athabasca Chipewyan First Nation, led by Chief Allan Adam, is one of the Indigenous owners of a massive new solar farm project in northeast Alberta. (Nick Kendrick/Greenplanet Energy Analytics)

CBC Media Coverage

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Next steps for the RCED

- Refining the current data collection template
- New round of data collection and validation
- Exploring new interface options

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Questions?

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