



Shining Lights

Energy Literacy and Language in the NWT

Understanding your Energy Story

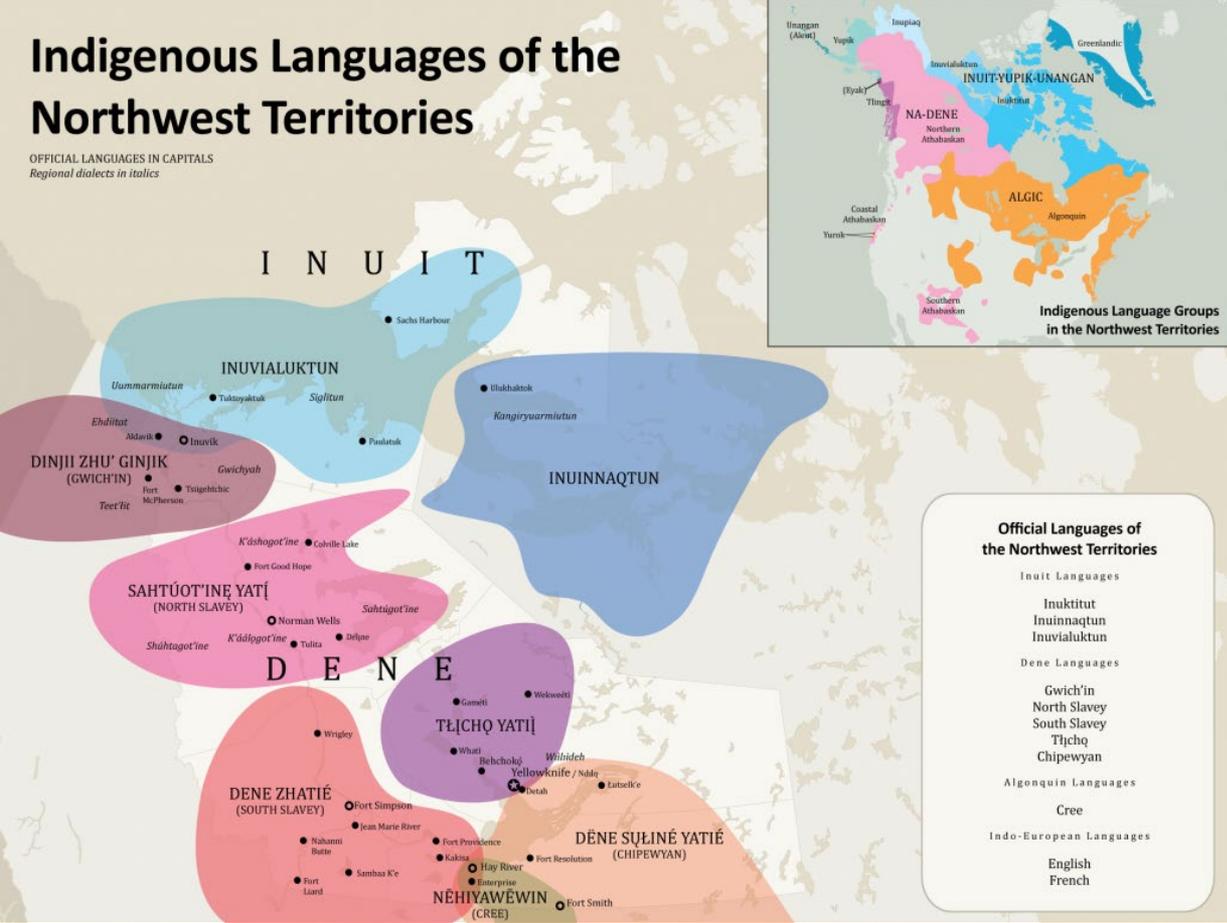


ARCTIC ENERGY
ALLIANCE

Chapter 1

**History of energy in remote communities
and intro to diesel fuel**

Language Regions of the NWT



Source: Prince of Wales Northern Heritage Centre, <https://www.pwnhc.ca/official-languages-of-the-northwest-territories/>

Communities in the NWT

Communities

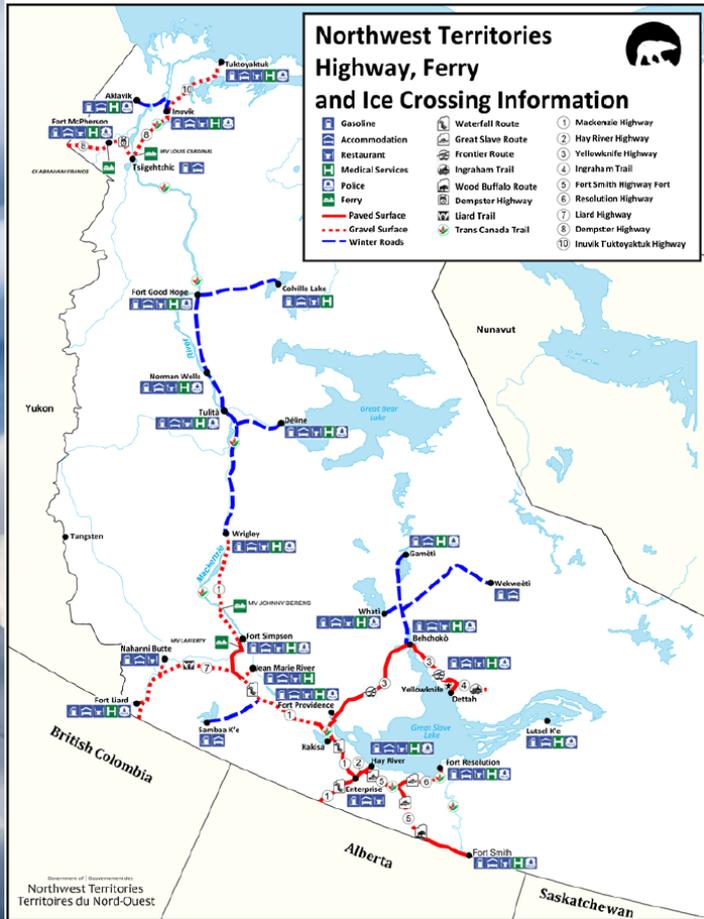


Communities in the NWT



- 33 communities – consisting of municipalities, hamlets and First Nation reserves
- Vary from the border of British Columbia and Alberta all the way up and beyond the Arctic circle
- Comprise of Indigenous Regional governments and Indigenous community governments

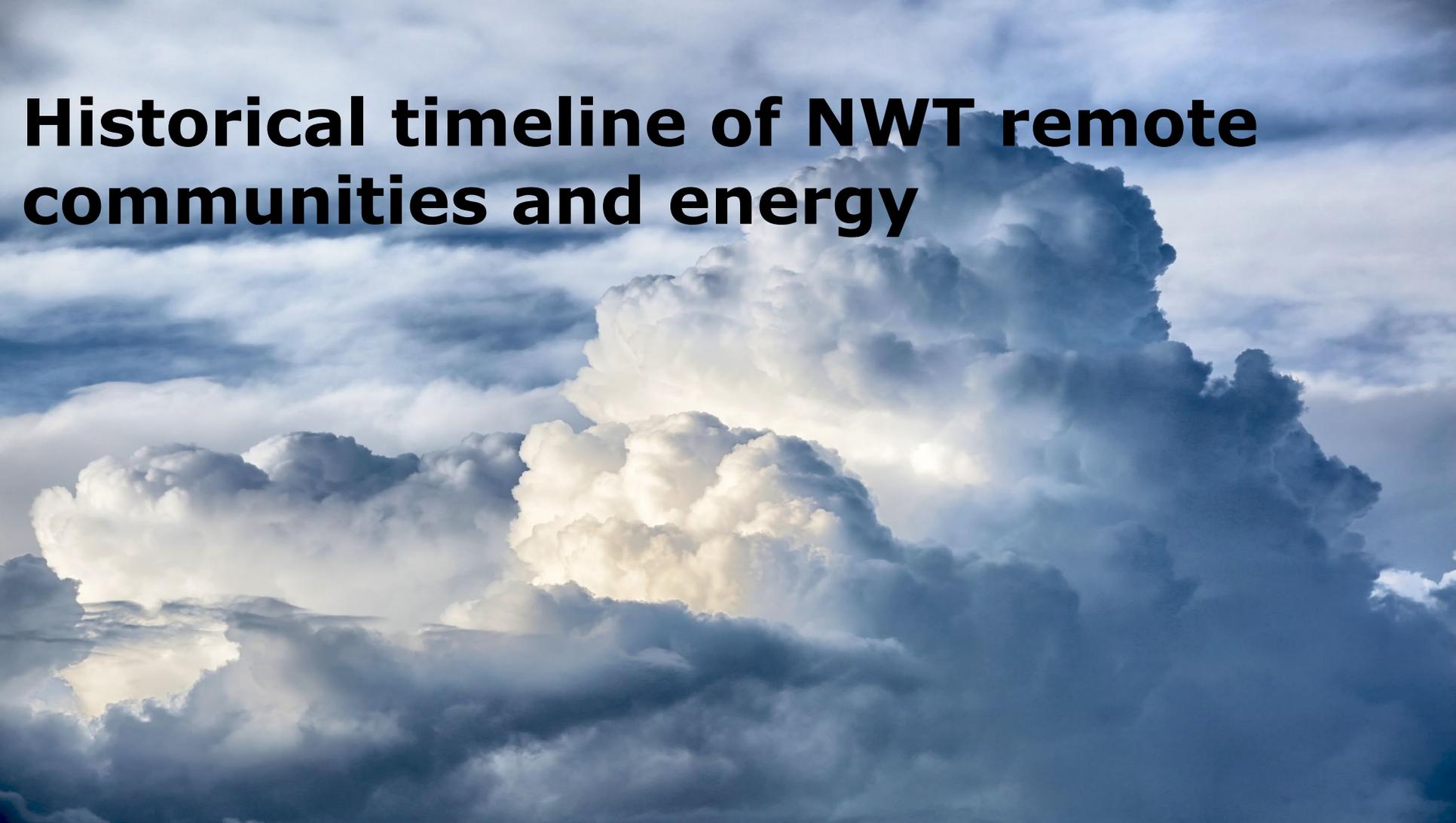
Communities in the NWT



- Communities are connected by permanent paved roads, gravel roads and ice roads
- One community is a fly-in only community

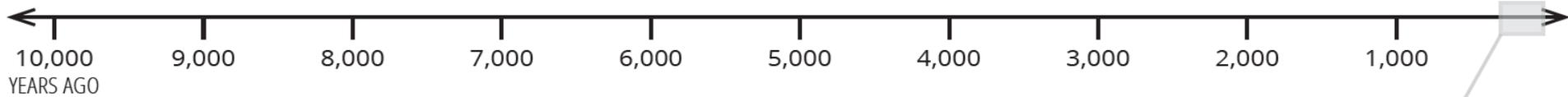
What does a remote community mean to you?

Historical timeline of NWT remote communities and energy

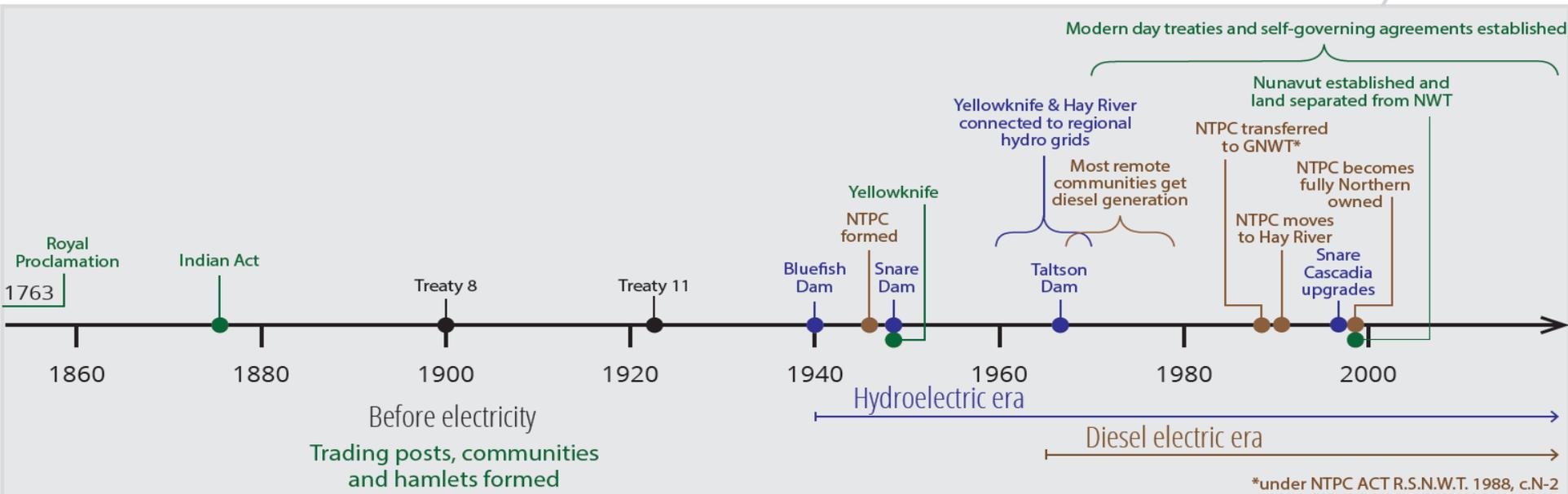


Timeline of Remote Communities

Indigenous People have been living in northern Canada since time immemorial.



Settlements, communities, reserves and energy provisioning from colonial governments and utilities have been present for only a fraction of that time: the past 200 years.



*under NTPC ACT R.S.N.W.T. 1988, c.N-2

Discussion

- What was energy use like in your community growing up?
- Does anyone remember what it was like before electricity or diesel fuel?
- What is using energy like in your community now?

Quiz – What main energy source was introduced in the 1940's?

a) Diesel powered electricity

b) Hydro power from the Bluefish dam

c) Hydro power from the Talston dam

d) Natural gas

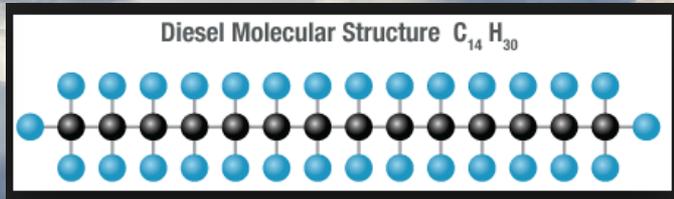
Diesel fuel

What is it and why is it the dominant energy source in our communities?



Diesel fuel

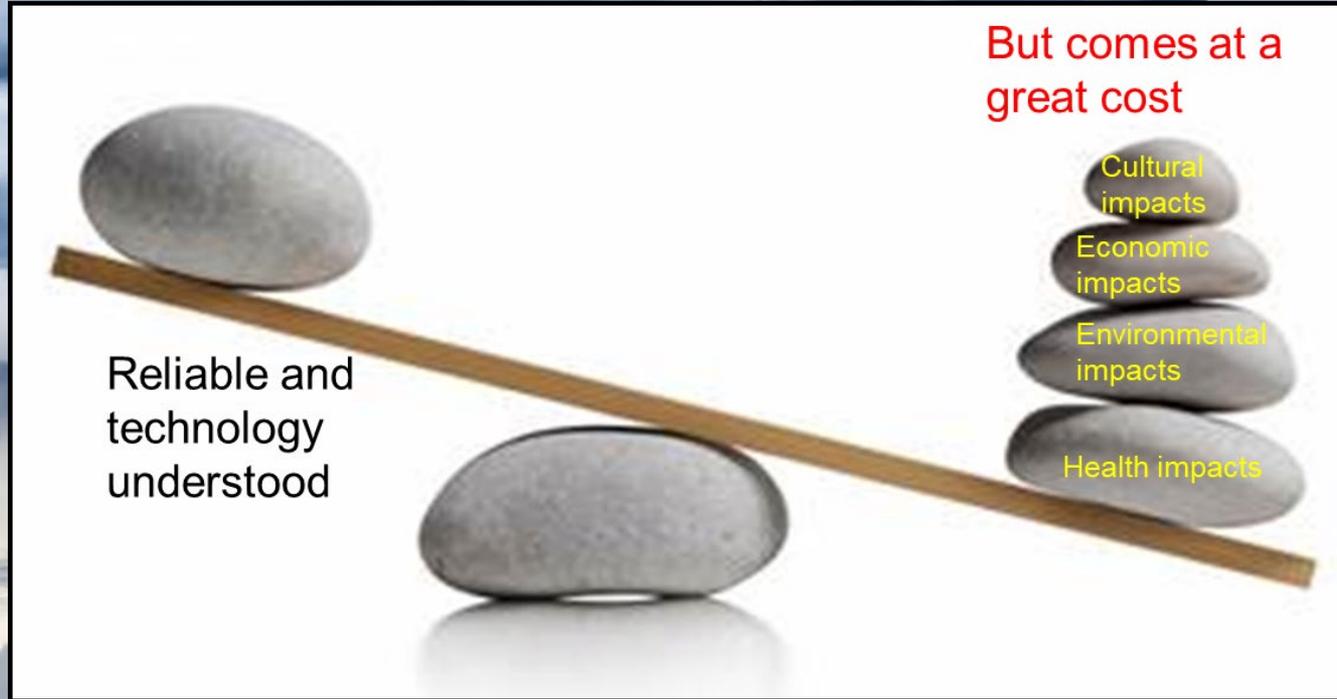
- a petroleum product used as fuel in diesel engines and other equipment. Diesel is a hydro-carbon – consisting of carbon molecules and hydrogen molecules
- diesel can be used to produce electricity, heat and it can be used for transportation in some vehicles
- With the establishment of permanent remote communities and services, there needed to be an energy solution
- **diesel fuel** was the answer



Diesel Fuel – Pros and Cons

Pros	Cons
Has high energy content	It's expensive – especially transporting it long distances to remote communities Because it's expensive, it requires government subsidies
Can be transported easily and is readily available	Is an imported, non-local resource . It has to be transported far distances – by road, ship and even plane.
Can be stored relatively safely in drums and large containers	It can spill – creating contaminated sites that is very harmful to the ecosystem and is very expensive to clean up
Used for a variety of purposes – electricity / heat / transportation – and sometimes it's the exact same fuel	Electricity generation capacity limitations can lead to brownouts, blackouts and restrict housing and economic development in remote communities
Combustion technology is relatively simple and well known	Has many environmental, health, social and economic consequences ... that markets, governments and policy makers currently externalize. Noise, smoke, smells are local environmental impacts in communities.

Diesel Fuel

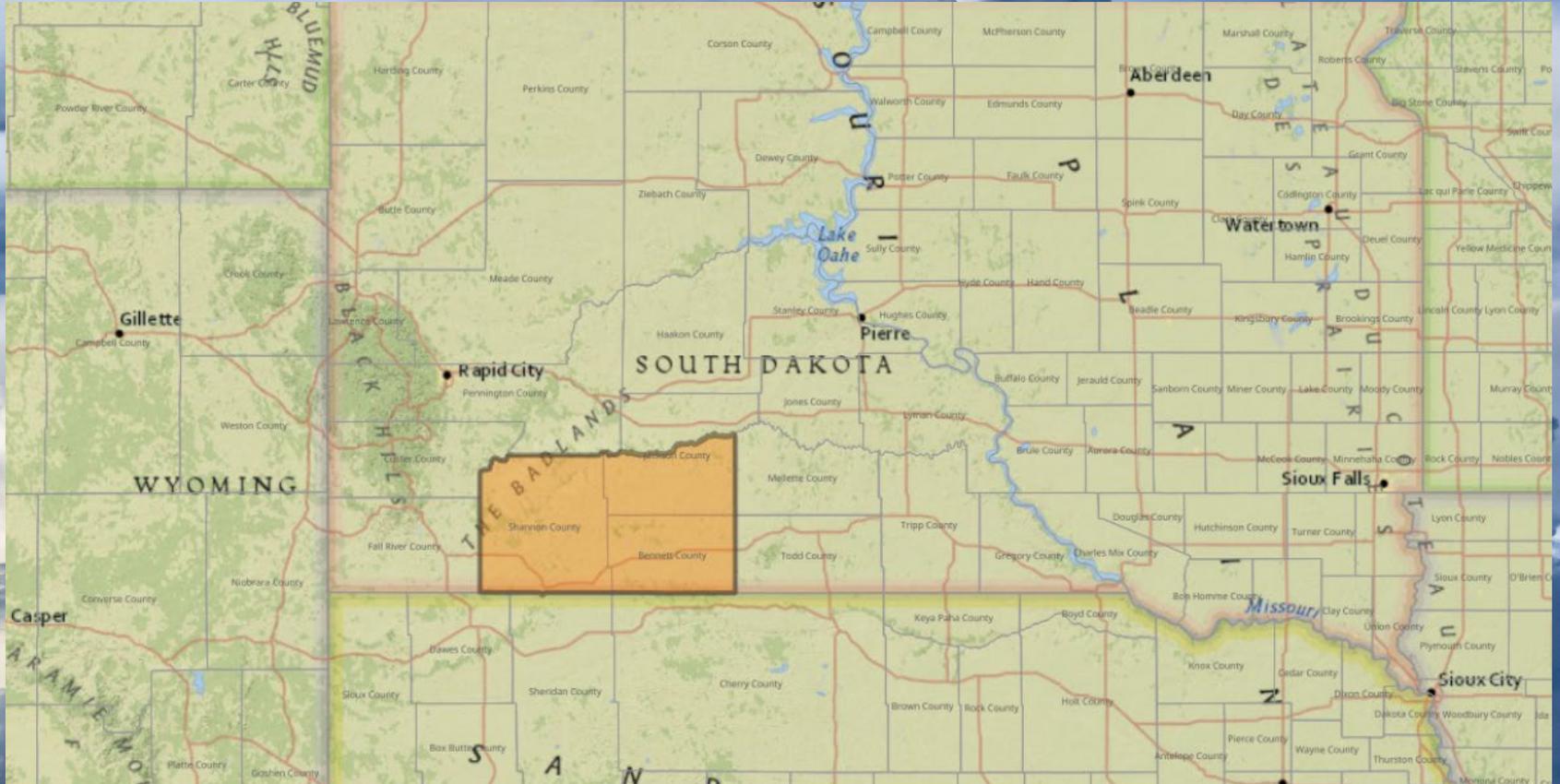




Diesel fuel storage tanks

Pine Ridge First Nation

An example of leadership in sustainability





Nick Tilsen
Thunder Valley

Ashoka Fellow Nick Tilsen: A New Generation of Indian Leaders

The Bush Prize For Community Innovation Winner

THUNDER VALLEY COMMUNITY DEVELOPMENT CORPORATION

Porcupine, SD

**2017 Bush Prize Winner | Thunder Valley
Community Development Corporation**



Ecosystem of Opportunity: A Short Thunder Valley CDC Documentary

A dramatic sky filled with large, billowing white and blue clouds. The clouds are layered, with some appearing closer and more detailed, while others are further away, creating a sense of depth. The lighting is soft, suggesting a morning or late afternoon setting. The text "Morning Break" is centered over the clouds in a bold, black, sans-serif font.

Morning Break

Cultural Values Around Energy

- What do you think of when you think of energy in your community?
- How do you relate to it?
- How does it relate to your culture and your way of life in your community?



KEY TERMS TO REMEMBER

Remote communities

[What is our collective definition of a remote community?]

Diesel fuel

A petroleum production used as fuel in diesel engines and other equipment. It can be used to produce electricity, heat or transportation

Other terms?

Are there other important terms we missed?

A dramatic sky filled with large, billowing white and grey clouds. A bright light source, likely the sun, is breaking through the center of the clouds, creating a strong glow and casting long shadows. The overall atmosphere is one of power and intensity.

Lunch Break