



**EAGLE HILL
ENERGY**
LIMITED PARTNERSHIP

CNDC GROUP OF COMPANIES



Haeckel Hill-Thay T'äw Wind Energy Project

Overview



The Yukon Context

- Northern location
- Yukon winter peak electrical demand is twice that of summer
- Isolated grid to the rest of Canada
- Historic generation capacity built to support mining
- Hydroelectric production in summer, reliance on fossil fuels in winter





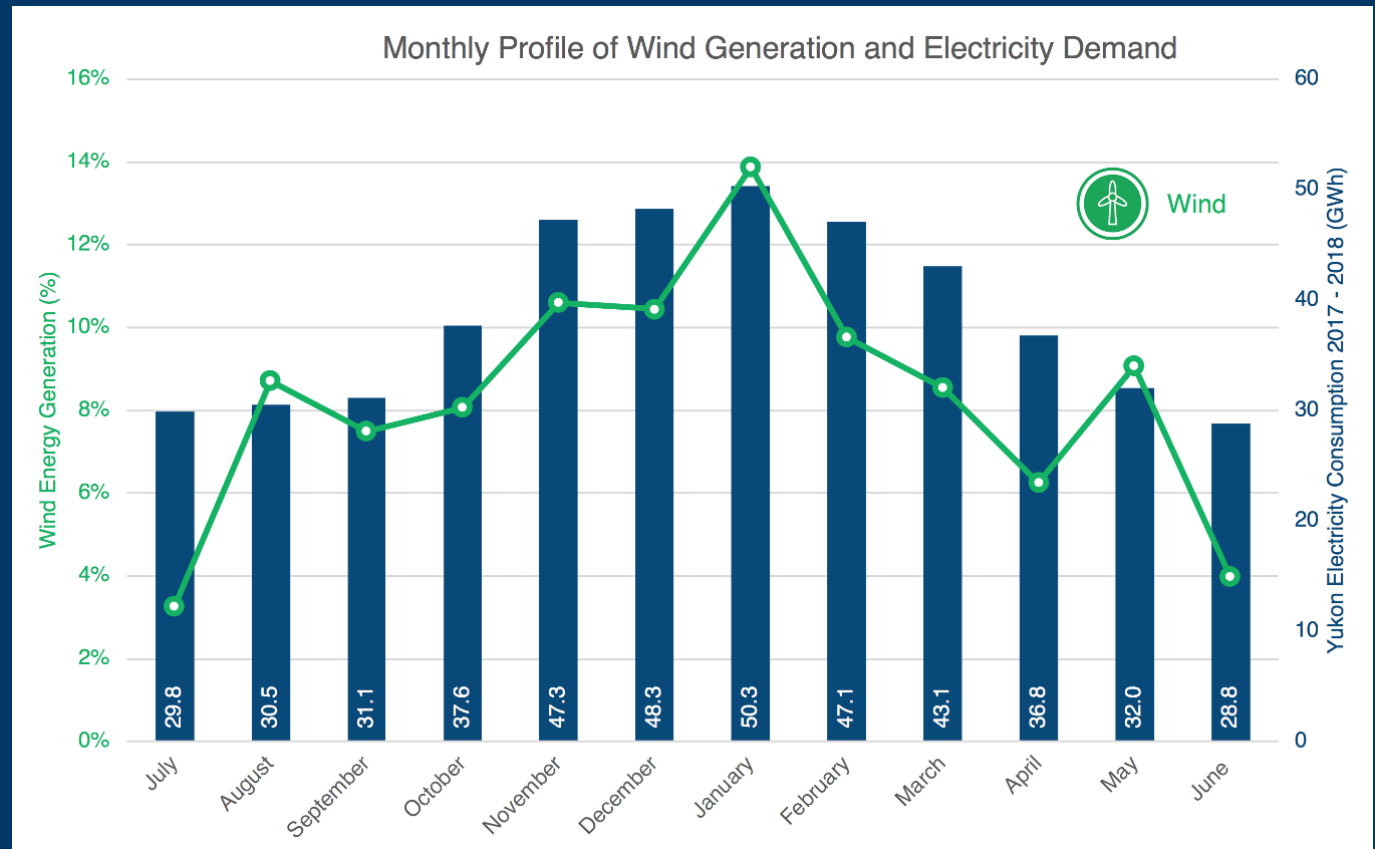
Project Scope

- Four (1MW) wind turbines on Haeckel Hill, near Whitehorse
- Construction started, commissioning scheduled fall 2023
- Brownfield site
- New technology turbines
 - 30m blades, 46m hub height
 - Operate at lower wind speeds
 - Direct drive
 - Anti-icing/de-icing tech: dark blades, heated blades, heated nacelle





Meeting Energy Demand



Reference: Monthly profile of thermal generation as taken from 2017 data available at Yukon Energy; Monthly profile of Whitehorse hydro generation as taken from the 2016 Resource plan; Monthly profile of wind generation as taken from site resource assessment 2016-2017



Project Benefits

- Electricity to power 650 homes/yr for 20+ years
- Displacing the equivalent of 40 million litres of diesel over lifetime
- Majority of energy generated during the winter
- Cold climate technology, reducing turbine downtime
- Brownfield re-development
- Indigenous ownership





Energy Security Contributions

- First territorial grid-connected wind project in Canada's north
- Increased local and Indigenous energy sovereignty and security
- Diversification in electricity generation
- Reduced use and importation of fossil fuels
- Increased local skills and capacity with wind turbines
- Winter electrical generation





Overall Project Schedule

Develop

- Concept
- Permitting
- Modelling

Financial Close

- Early Works Construction:
- Layout
 - Site clearing, blasting
 - Anchor rings manuf.

Commercial Operation

- Summer 2023 Construction:
- Electrical Equipment
 - Turbines Arrive/Install
 - Commissioning

Operations + Maintenance

- Summer 2022 Construction:
- Balance of Plant Works
 - Grid System Upgrades
 - Turbine Manufacturing

- Turbine shipping:
- Antwerp -> Site

- Clean Energy Production:
- Renewable Winter Energy
 - Offset increasing fossil fuels
 - Expand cold climate energy
 - Research and Innovation

- Financial Close:
- Funding Committed
 - BoP Contract Signed
 - TSA/MSA Signed
 - Shipping Signed

- Anchor rings shipping:
- Liverpool -> Site

2015

2020 2021

2022

2023

2024

2045+

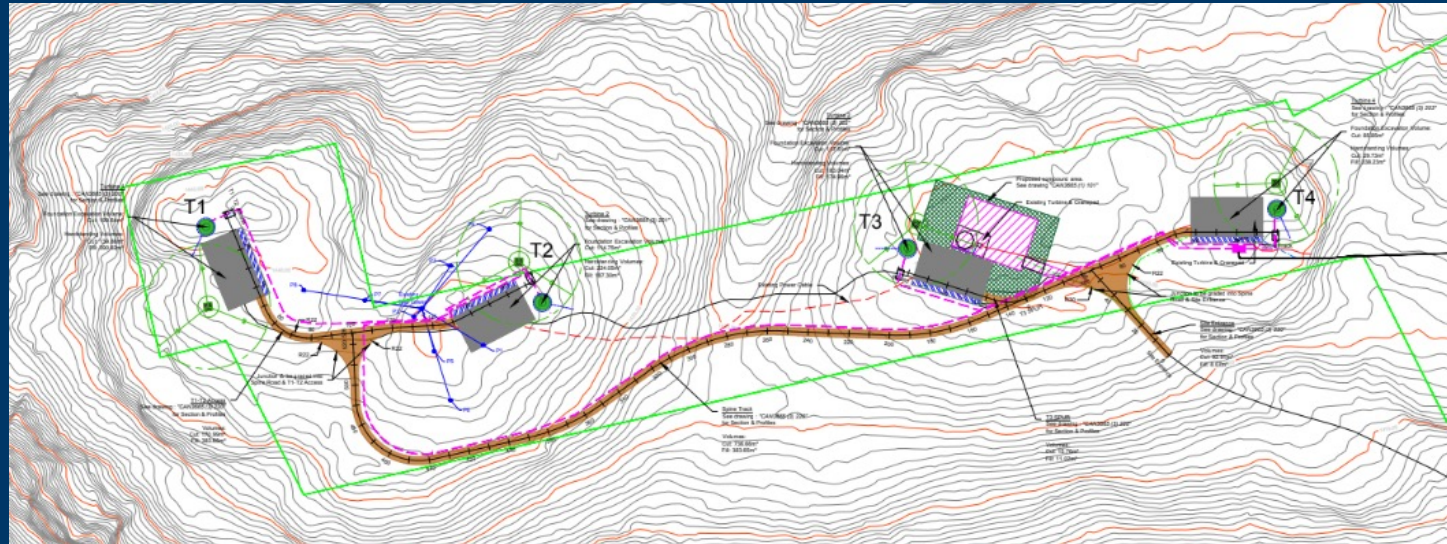


Project Site





Project Design

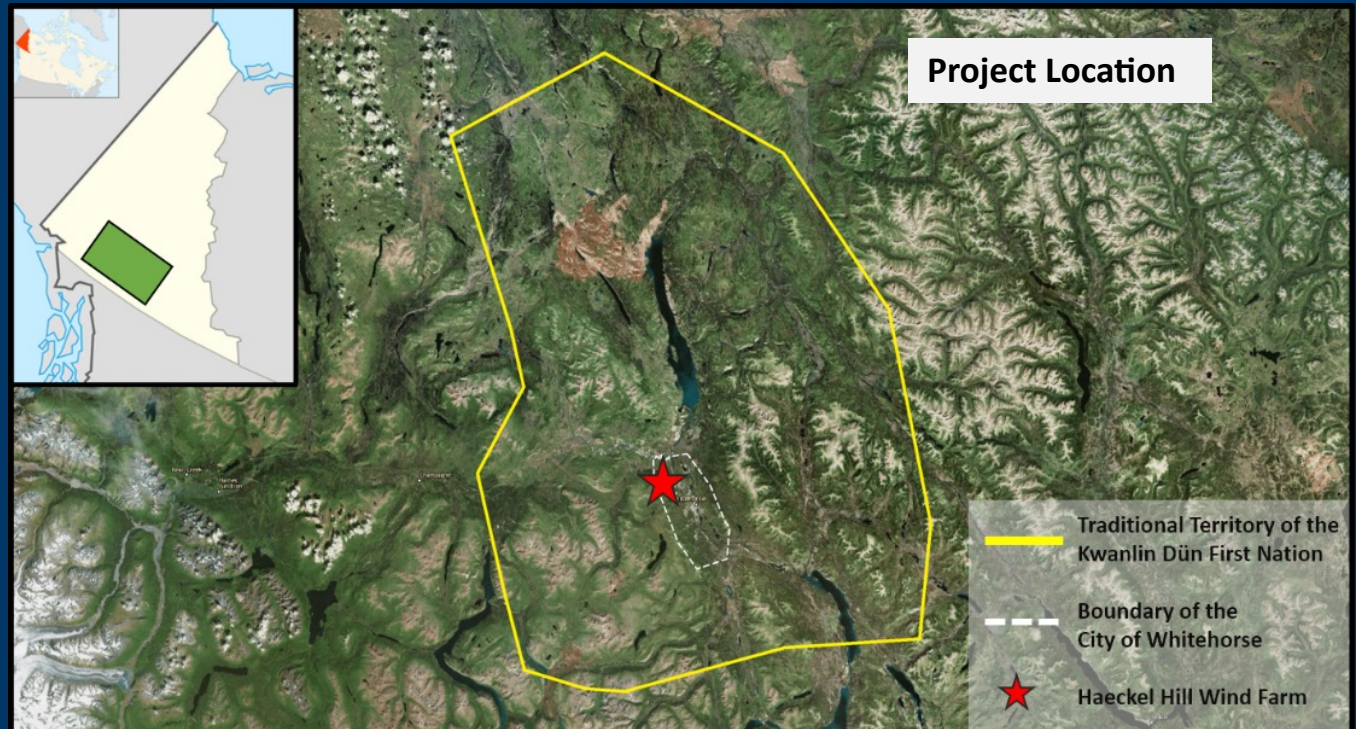


- 4 Wind turbine generators with cold climate blade heating
- Distribution line upgrades
- Haeckel Hill access road upgrades



100% First Nation Ownership

The Haeckel Hill-Thay T'äw Wind Energy Project is owned and operated by Eagle Hill Energy Limited Partnership, a wholly-owned subsidiary of Chu Níkwän Limited Partnership, the business arm of the Kwanlin Dün First Nation.





Haeckel Hill Wind Project

Board of Directors

Eagle Hill Energy Limited Partnership



Malek Tawashy *Director, and CEO Northern Energy Capital*

Malek brings over 15 years of public-private sector partnership experience constructing large infrastructure projects totaling over \$300M in value. Malek is responsible for leading the Haeckel Hill Wind Project through development, construction and operations.



Jacob Heigers *Chief Operating Officer, Chu Níikwän LP*

Jacob is the Chief Operating Officer leading operations for the Chu Níikwän Development Corporation and Canyon City Construction.



Les Wilson *Director of Development, Chu Níikwän LP*

Les is the Senior Project Manager leading business development for the Chu Níikwän Development Corporation.





Haeckel Hill Wind Project

Project Execution Team



Northern Energy Capital – Development Lead
Project Development

Northern Energy Capital provides project development services to empower a cleaner, more sustainable Canadian North by developing renewable energy sources that deliver powerful social, economic and environmental returns., to design through to construction.



Green Cat Renewables – Owner's Project Engineer
Project Engineering Services

Green Cat Renewables is a global firm providing project design, engineering, and project management services for micro-grid generation with +300 completed projects



EWT – Preferred Wind Turbine Supplier
Supply and Installation Wind Turbines

EWT is a global, full-service wind turbine manufacturing company specializing in the design and production of wind turbines and technical support



NGC Builders – General Contractor
General Contracting Services

NGC Builders has provided on-time and on-budget general contracting services to the Yukon for over 30 years, delivering self-performed and sub-contracted work



Local Contractors



ATCO Electric

YUKON



TETRA TECH



**CANYON CITY
CONSTRUCTION**



**UNDERHILL
GEOMATICS**





Project Funders




Yukon

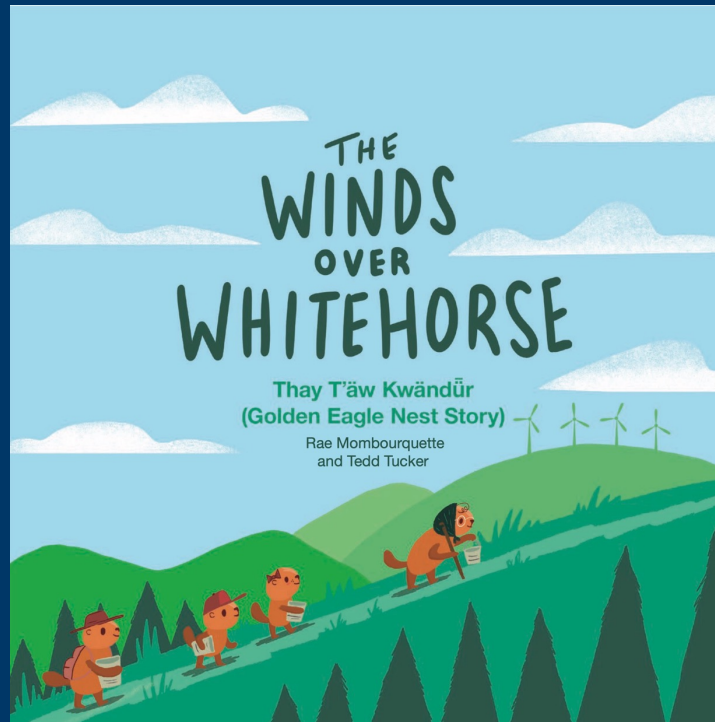
Canada 

- Eagle Hill Energy Limited Partnership, owned by Kwanlin Dün First Nation's development corporation Chu Níikwän Limited Partnership
- Yukon Development Corporation (YDC)
- Arctic Energy Fund
- Clean Energy for Rural and Remote Communities Program (CERRC)
- Canadian Northern Economic Development Agency (CanNor)



“Eagle Hill” Energy

The mountain where the turbines are located is called *Thäy T'äw*, or “Golden Eagle Nest” in Southern Tutchone. According to late Kwanlin Dün Elder Äyenjiatà Louie Smith, a giant golden eagle nested on the hilltop long ago.



Learn more about the origins of Eagle Hill Energy LP's through our self-published children's book: *The Winds over Whitehorse: Thay T'äw Kwändür (Golden Eagle Nest Story)*.

Available for purchase on Amazon:
<https://a.co/d/03UPzSAC>

Free eBook available for download on:
<https://www.chuniikwan.ca/eagle-hill-energy>



Haeckel Hill Making History



1st fully-permitted utility
wind project in
Canada's Territories



Powering over 650 homes
annually, producing the clean
energy equivalent of 40
million litres of diesel fuel



Proudly owned by Eagle Hill Energy
LP, a wholly-owned subsidiary of
Chu Níikwän Limited Partnership,
the development arm of the
Kwanlin Dün First Nation



Capitalizes on the Yukon's
winter wind resource to
reduce the Territory's carbon
emissions