

Haeckel Hill-Thay T'äw Wind Energy Project

MODERN COLD-CLIMATE WIND TURBINES

EHELP's new wind turbines mark a significant advancement in cold-climate technology. Equipped with state-of-the-art features, they provide unparalleled efficiency and reliability in harsh weather conditions.

WHAT'S NEW?

Longer Blades: The blades on the new turbines are 30% longer. This increase creates a 70% larger swept path, allowing us to harness more of the wind's energy with each rotation.

Advanced De-Icing Technology: Unlike the previous turbines, the new ones have black blades that reduce icing as well as in-blade heating systems that keep them warm and melt ice quickly if it does build up.

Taller Turbines: In order to provide access to higher, stronger, and more consistent airflow, the height of the turbines was increased by approx. three stories, from 37m to 46m tall.

Powerful Generators: The new wind turbines are equipped with more powerful generators to maximize the amount of energy created by each turbine. The new turbines have 1000 kW (1MW) generators, compared to the previous models which were 600kW.

RESULTS OF DATA COLLECTION

Turbine Activity: Data collected on wind speeds at Haeckel Hill from the last six years indicates that the new turbines will be spinning approx. 80% of the time (not including pauses for maintenance and de-icing).

Seasonal Winds: Data shows that wind activity on Haeckel Hill increases in the winter, and decreases in the summer. This means that more energy will be collected from the wind turbines in the winter, when the community needs it the most. This supports the most cost-effective blend of energy production in the Yukon since summer sources of energy are already sufficient for our needs.