

The Rankin Inlet Clean Energy Project



“Together we have the opportunity to truly impact the trajectory of how energy is delivered in our communities; for now and for future generations” – Malek Tawashy

The Problem to Solve

- Nunavut communities rely on imported fossil fuels for 100% of their energy demand
- Fossil fuels are causing climate change, harming the health and wellbeing of the planet, and the wildlife we depend on for survival
- Importing fossil fuels from the south is an expensive process, driving up the cost of energy to unaffordable rates

The Solution

- A clean energy project in Rankin Inlet has the opportunity to use a world-class wind resource and provide clean energy from this renewable resource
- A 2MW project has the opportunity to provide over 33% Rankin Inlet’s energy demand, displacing over 1.4 Million Litres of diesel a year
- Clean energy from wind power can provide energy below the avoided cost of diesel, reduce dependency on imports and reduce energy costs

The Vehicle for Change

- Power Purchase Policies: Policies exercised by governments or utilities that support the independent generation and selling of power by a third party Independent Power Producer (IPP) to a utility through a legally binding Power Purchase Agreement (PPA)
- Qulliq Energy Corporation has stated an IPP Policy is being developed for Government approval anticipated to be in the first quarter of 2019

Work Completed to Date

- Site selection and required permitting has been obtained for a wind project site on the outskirts of Rankin Inlet
- A met tower has been constructed on site and is collecting site-specific wind and solar data to be used in feasibility studies
- The project has been positively received by the community and partnerships with local businesses are developing to own the project



PROJECT TIMELINE

- ✓ Jan. - Feb. 2018 Developing the Team
- ✓ Feb. - Mar. 2018 Community Consultation for Wind Monitoring
- ✓ Mar. - Apr. 2018 Application to Council for Wind Monitoring
- ✓ May 2018 Installation of Wind Monitoring Tower
- 2018 - 2020 Community Consultation and Wind Data Collection
- 2018 - 2020 Consultation with Qulliq Energy Corporation
- May 2020 - Sept. 2020 Project Construction
- 25 - 30 years Project Operations and Maintenance

Engineering and Project Design

We are developing an intelligent energy management system with energy storage for the following outcomes:

- Extending ramp rates, allowing operators sufficient time to dispatch diesel generation as required
- Providing operators added flexibility to run diesel generators at higher efficiency points to lower fuel consumption
- Shedding excess generation as required
- Maintaining overall system reliability with voltage and frequency control

