



OLD CROW WIND PROJECT

PROJECT DESCRIPTION

Old Crow is a First Nation community of approximately 260 people located north of the Arctic Circle without permanent road access. The community relies on diesel generators and a new 940 kW solar plant for their electricity.

3EYOND Consulting was mandated to evaluate the technical and financial potential of wind energy to reduce diesel consumption as much as possible.

SERVICES

- Grant Writing and Funding Application
- Pre-feasibility Study
- Construction and Commissioning Management
- Operational Maintenance and Support

PROJECT AT A GLANCE



REGION:
OLD CROW, YUKON



CLIENT:
VUNTUT GWITCHIN
GOVERNMENT (VGC)



STATUS:
ONGOING



TYPE:
WIND ENERGY

KEY STATS

80%

potential of diesel
displacement with wind
power

750 kW

Wind capacity currently
investigated

1

MET tower installed



CHALLENGE

- Size a power generation system in a microgrid / remote community
- Operate and maintain a MET mast in a remote arctic location
- Consider severe icing formation in winter impacting power generation
- No access road to community

SOLUTION

- Secure grant funding
- Evaluate of wind energy potential for two potential sites
- Determine the wind turbine size and number of turbines
- Determine energy storage requirement
- Evaluate the business case
- Support community consultation process
- Provide construction management for wind monitoring (MET tower) installation
- Support Operation and Maintenance of the MET tower with online platform

RESULTS

- Wind measurement on-going since November 2020
- Wind farm of about 750 kW with energy storage would increase renewable energy penetration above 80%
- Small turbines (100 kW) likely not practical for Old Crow