Native Village of Eyak
Wind Energy Feasibility Study
A summary of Sites evaluated for development.

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Background

- Cordova, AK is a rural, remote, landlocked community in Southcentral Alaska, located between Prince William Sound and the Copper River Delta.
- Electricity is generated by two run-of-the-river hydro power plants.
- During winter months, hydro is supplemented by diesel generators. Electricity can cost over $0.50/kwh.
- Wind increases dramatically during winter, providing the potential to offset diesel use with wind.
Study Area
Study Area
Cordova Sites
Meals Reservoir & CTC Shop
Meals Reservoir
Meals Reservoir

- Meals reservoir has excellent resources, however the site of our MET tower is adjacent to a steep dropoff, adding to turbulence.

- Other sites near the current site will be evaluated to determine the effects of the dropoff and turbulence.
Meals Reservoir & CTC Shop
CTC Shop

- Sensors put up because of ease of deployment
- Surprisingly good resource, but less than others.
- Limited area to develop
- Transmission system adjacent
- Bird conflict issues
- Aviation issues
Mount Eyak
Mount Eyak
Mount Eyak
Mount Eyak

- Excellent resource with less turbulence than other sites
- Land Ownership issues
- Limited area to develop
27 Mile
27 Mile
27 Mile
27 Mile

- 27 Mile has the greatest wind resource
- Turbulence issues
- Need to measure higher
- Land Ownership issues
- Silt (in air) very high winds, and icing may present difficulties
- No transmission lines past 14 mile.
For 2014

- Put 50m MET tower up at Meals Reservoir
- Add additional sensors at 27 mile, or move existing sensors up the tower
- Put sensors higher up on the Mt. Eyak Tower
- Balance development cost with resource availability to determine suitability of these three sites for development.
Thanks

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- The Eyak Corporation
- National Renewable Energy Laboratory
- Alaska Energy Authority