

Alaskan Wind Industries

Commercial and Residential Installations

Case Study – Bear Lake Lodge



Return on Investment/ Payback

The Cost of Bear Lake Lodges Full Installation & 5 Year Warranty:
(Business Payback)

\$61,600.00	Full Turnkey System with administrative electrician, Producer Support, 5 Years Warranty, 5,000 AK Airline Miles & More
\$18,480.00	30% Cash Grant/Tax Rebate
\$15,400.00	25% Business/Agricultural Grant
\$16,259.00	Depreciation savings over a 5 year period
\$3,100.00	Other Small Incentives over 5 year period *
\$53,239.00	Total Incentives
\$8,361.00	Total net cost after incentives
\$6,000	Average Yearly Savings on delivered fuels
18%	Return on Investment
\$68,000.00	Added property value (nontaxable)
25 Year	Design Life

Warren Johnson, owner of Bear Lake Lodge just outside Port Moller Alaska has invested in a Wind-Diesel system. Located on the shores of Bear Lake. The lodge has an average of 16 mph winds annually. With energy costs already high and steadily climbing, Warren decided it was time to try a different method to meet his energy needs. Warren Johnson first started working with Alaskan Wind Industries by conducting research on environmental impact, collecting wind resource information and working with Alaskan Wind Industries Financial team to apply for all incentives available.

Warren Johnson's wind turbine is interconnected to a large battery bank and then to a diesel generator. Bear Lake Lodge will first use power generated from the wind turbine and batteries, and then may utilize power from his generator to meet his energy needs. This setup for Bear Lake Lodge will allow his guest to run 100% off of renewable energy during windy days, however will not leave his guest or his employees without energy during the calm ones.

With the support from AKWI, Bear Lake Lodge received all available incentives and saw a large reduction in fuel cost from using his diesel generator. After 55% cash grants and other incentives, Bear Lake Lodge's out of pocket expenses were less than \$17,000.

Warren Johnson not only wanted to stabilize his current energy costs, he also wanted to invest for his future generations to make it easier to operate his lodge in the Aleutian Islands.

Overview:

Sector: Commercial Lodge - Aleutians

Challenge: An investment was sought to combat current energy costs

Selection: Wind Turbine that would keep producing in high winds and off-grid.

Benefits: Uses wind energy, connected with diesel and batteries to make a stabilized off-grid system.

