

Celebrating Earth Day with Bird-Friendly Wind Turbines

The Alaska Region of the U.S. Fish and Wildlife Service is in the process of installing and testing wind turbines on Izembek and Alaska Peninsula National Wildlife Refuges. The \$3.4 million project was funded through the American Recovery and Reinvestment Act (ARRA). It was the largest Recovery Act investment in Alaska and has created several jobs.

The project consists of eleven innovative Vertical Axis Wind Turbines (VAWT's) mounted on a single (monopole) tower: seven of the turbines, mounted on 20ft towers, will provide power to U.S. Fish and Wildlife Service facilities in Cold Bay (one of these became operational in late February 2012 and is shown in the accompanying photo and the linked YouTube video); the other four turbines will be mounted on 60ft monopole towers in King Salmon.

VAWT's mounted on monopole towers minimize bird-strikes. VAWT's have less surface area, appear as solid objects to birds, and the towers do not require guy wires. The VAWT's are manufactured by Vbine Energy, a company of Winkler, Manitoba; the complete system is being designed and installed by Marsh Creek LLC, of Anchorage, Alaska.

When fully operational, the wind turbines are expected to generate 35Kw of power at Cold Bay and 20Kw at King Salmon. The wind hybrid system integrates intermittent wind resources with the stability of conventional energy resources to fulfill electrical and thermal energy demands at these facilities.



Wind turbine is put in place at Cold Bay, Alaska
Photo Credit: Marsh Creek LLC