Wind-Diesel Project Field Trips

Saturday and Sunday, April 26-27, 2008

A great opportunity to visit commercial wind-diesel projects in rural Alaska. Participants choosing to take part in the field trips will fly to two remote communities, Kasigluk, with a stopover in Bethel, and Kotzebue, to tour the wind diesel plants and talk with local operators and village leaders on the operations and value of retrofitting diesel mini-grids with wind turbines and associated controls.

Itinerary and Travel Information

On Saturday the group will fly via Alaska Airlines from Anchorage to Bethel, departing Anchorage at 12:20 pm and arriving in Bethel at 1:37. We will then transfer to a charter flight for the 15 minute trip to Kasigluk with a sack lunch provided along the way. After the tour of the power system and community we will return to bethel and fly back to Anchorage on the 8:49 Alaska Airlines flight, arriving in Anchorage at 9:57. This portion of the trip is likely to cost approximately $450.00.

We have booked a block of rooms at the Coast International Inn (http://www.coasthotels.com/hotels/usa/alaska/anchorage/coast_interinn/overview) which has a shuttle from the airport at a discounted rate of $69/night. You are welcome to stay at another hotel, but due to the late arrival and early departure, someplace close to the airport would be recommended. Depending on our arrival, we will probably drop by one of the local eating establishments for a light, informal meal or eat in Bethel depending on our timing.

On Sunday we will catch the early 6:00 AM Alaska Airline flight up to Kotzebue, arriving at about 7:45 and visit the Kotzebue wind farm and diesel plant. After lunch we will return to Anchorage on the 2:47 Alaska Airline flight, getting back into Anchorage at 4:17, allowing people to catch Sunday night flights out of Alaska if required. This day trip will cost approximately $350.00

Each person will be responsible for booking their own hotel accommodations and commercial airline flight. The charter flights between Bethel and Kasigluk will be organized by the Alaska Energy Authority.

Booking codes for the Coast International Inn hotel is “1521” or they can be contacted directly, reference the "Wind Diesel Group / Conference / Workshop" to get the discount. Alaska Airlines has also provided a discount code for travel to Bethel and Kotzebue which will provide a 10% group reduction in posted fairs. The code is “ECCMB0229”. Alaska Airlines flights can be booked directly with Alaska Airlines (http://www.alaskaair.com) or through your local travel agent.

Saturday, April 26th

- Flight 43 from Anchorage (ANC) to Bethel (BET) – 12:20 pm Departure
- Flight 46 from Bethel (BET) to Anchorage (ANC) – 8:49 pm Departure

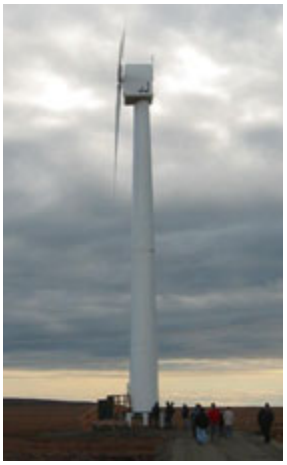
Sunday, April 27th

- Flight 151 from Anchorage (ANC) to Kotzebue (OTZ) – 6:00 am Departure
- Flight 152 from Kotzebue (OTZ) to Anchorage (ANC) – 2:47 pm Departure

Kotzebue Wind / Diesel System

Kotzebue Electric Association (KEA) is a non-profit cooperative, which owns and operates an 11.2-MW capacity diesel electrical utility to provide power for Kotzebue, Alaska. Kotzebue is a community of about 3,100 people and is the service hub for all villages in this northwest region of Alaska.

The KEA wind power project consists of 17 wind turbines installed at a single site totaling 1.04 MW of rated capacity. Fifteen of the turbines are Entegrity EW15's models (some dating back to the old Atlantic Orient Company days) of Boulder, Colorado and Charlottetown PEI, Canada. Three of the turbines have been operating since July 1997. The Entegrity EW15's is a three-bladed, downwind turbine with at 15-meter rotor diameter.



The sixteenth turbine, a North Wind 100, is manufactured by Distributed Energy Systems (Northern Power Systems) of Barre, Vermont. It was installed in April 2002. The NW 100 is a three-bladed, upwind turbine with a direct-drive generator designed for cold climate conditions, remote villages, and distributed generation.

The last turbine is a remanufactured Vestas V15 65kW turbine was installed at the site. This three bladed turbine is a classic upwind, fixed pitch induction turbine and has been operating for several years.

Lastly, in 2007 KEA installed a complete new SCADA system to assist in the monitoring and control of all of the wind and diesel turbines. KEA is also in the initial phases of working on a project to install a small battery storage system to allow for the expanded use of wind energy.

Kasigluk Wind / Diesel System

Kasigluk is a small community in south western Alaska along the Johnson River, about 15 minutes flight time from the regional hub of Bethel. Kasigluk is made up of two separate small villages, Akiuk and Akula, whose combined population of 600 receive their power from a wind diesel power system operated and owned by the Alaska Village Electric Cooperative (AVEC). The power system incorporates a modern, module diesel plant and three North Wind 100 wind turbines manufactured by Distributed Energy Systems (Northern Power Systems) of Barre, Vermont. The system was installed in July of 2006 and has been operating since that time. With an average electrical load of around 250kW the turbines have the ability to provide most of the community's electrical energy needs, although the power system is not configured to operate with all of the diesels turned off. This wind-diesel system also supplies power to nearby Nunapitchuk and Old Kasigluk. This system is estimated to displace 52,000 gallons of diesel fuel per year.