



## From wind to energy: New turbine construction

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1/21/2009 - **F.E. WARREN AIR FORCE BASE, Wyo.** -- When asked about Wyoming's natural resources, most are quick to point out the Powder River Basin coal seams or the Greater Green River Basin oil fields.

Often overlooked is the main sponsor of the Wyoming Wind Festival, a wind that gusts hard enough to blow trucks off of the road. It is this last resource that Warren looks to utilize with the construction of a third wind turbine.

The turbine construction has been quietly moving forward since October, according to Ken Davis, 90th Civil Engineer Squadron.

"The foundation for the turbine is complete," Mr. Davis said. "All the parts got here from Pennsylvania and the crane is assembled, so we're ready to start seeing some vertical progress." The turbine construction is expected to be complete this month.

The fiscal year 2006 National Defense Appropriations Act provided funding for the turbine. The act provided more than \$4 million to create a wind test demonstration project on an Air Force installation using a wind turbine manufactured in the United States and new to the United States market.

"Our foresight and wise use of ECIP [Energy Conservation Investment Program] funds to install and maintain our existing turbines gave F.E. Warren a distinct advantage when competing for the project - and ultimately led to another huge renewable energy investment on base," Mr. Davis said.

The new turbine is manufactured by Gamesa Pennsylvania and boasts a power rating of 2 MW.

"Together, our current Vestas have a power rating of 1.32 megawatts, so the new turbine will more than double our current generation capacity," Mr. Davis said.

The new turbine will be about one and a half times the height of the existing Vestas. A site location "downhill" from the existing turbines is necessary to prevent the new turbine from interfering with Cheyenne Regional Airport operations, according to Mr. Davis. This location also allows the new turbine to use existing infrastructure when transmitting generated power.

Just like the Vestas, the new turbine will be tied directly into the base power grid.

"Once its online, the new turbine will significantly reduce the power purchased from off base suppliers," said Mr. Kevin Zimmerman, 90th CES.

Even though it may appear to be complete, several weeks are required to test the turbine before bringing it online. Mr. Zimmerman added that according to the current schedule, the turbine's first power day will be towards the middle of February.

For more information, call 2nd Lt. Dave Simpson at 773-3899.