

Heart Mountain Irrigation probes wind-generated energy

PRINT EMAIL

Written by Gib Mathers

Tuesday, 16 February 2010

Yes, we have good wind," said Ric Rodriguez, president of the Heart Mountain Irrigation District Board of Commissioners.

Rodriguez referred to an anemometer, a device installed a year ago to measure the wind to help determine if snaring that wind for electrical power marketing is feasible for the district.

For his quip, Rodriguez got a few laughs at the district's annual meeting last Tuesday, but he was sincere about tapping the windy hills for electrical power to sell and so help the district gain revenue.

Other ideas to help the district find revenue are welcome, Rodriguez told the group.

Rodriguez cited the Shoshone Irrigation District that grosses around \$500,000 per year from its hydroelectric power plant to offset costs.

Shoshone runs 300 cubic feet per second directly from the Garland Canal to achieve three megawatts five months out of the year.

Heart Mountain doesn't carry that kind of volume, Rodriguez said.

But it is windy.

The anemometer said Heart Mountain's wind averages 13 to 14 mph, Rodriguez said.

That is a 29 percent capacity factor, said University of Wyoming College of Agriculture Energy Extension Coordinator Milt Geiger.

That's good, Geiger said.

Southeast Wyoming has a 42 to 46 percent capacity factor, Geiger said, adding, "That's not to discourage you."

Southeast Wyoming has the wind, but it doesn't have the transmission lines to get the electrical product to out-of-state customers.

Geiger told the assembled group to explore transmission, because that is crucial to marketing the power.

A smaller wind farm would run 75 megawatts. At 1.5 megawatts per turbine, that equals 50 turbines, or a \$150 million to \$180 million investment. The more the district invests, the greater its return. If it just leases the wind, meaning allowing other wind developers easements, the return is far less, Geiger said.

There are obstacles.

Developing wind with your own capital is a risky business, Geiger said, and it takes a lot of capital.

On the other hand, lack of local expertise or control also gives more knowledgeable wind developers the advantage.

It will require two or three years of planning, along with continued evaluation of the plan, Rodriguez said.

Next steps are installing more anemometers to find the ideal wind site within the district, meeting with wind developers and cooperatives to determine the best ownership alternatives and talking with local power companies for a possible

cooperative/joint venture, Rodriguez said.

Rodriguez assured the assembled group that job of the district manager, Dan Laursen, still is delivering irrigation water to the district's users.

Other wind companies are appraising the area, so wind will be developed around these parts, with or without the district getting on board, Rodriguez said.

In the meantime, several pending Wyoming Legislature bills pertain to wind development. (See related story.)

"Wind energy is coming to northern Wyoming whether we like it or not," Rodriguez said.

The district is still in the early stages of investigating wind energy, Geiger said.

"It takes a long time to get this accomplished," he said, "if it is feasible."

Wind bills in a nutshell

The Wyoming Legislature, now in its 2010 budget session, is introducing bills to monitor wind development and tax the expanding market.

Wind energy is growing.

According to a Feb. 1 Associated Press article, total wind-energy production in Wyoming exceeded 1,000 megawatts for the first time in 2009.

Bills under review include:

- House Bill 72 would regulate wind energy facilities and establish minimum standards at sites, require permitting by counties and allow those counties to adopt requirements and allow referrals to the Industrial Siting Division under the Wyoming Department of Environmental Quality.

The bill also would require fees, bonding by the developer and would establish penalties for failing to comply.

- HB 79 would limit the power developers can use to condemn private land to build energy collection lines (lines to transport power to grids).

Gov. Dave Freudenthal would like a one-year moratorium on eminent domain until the Legislature has a chance to examine condemnation more closely, his press secretary Jonathan Green said last week. Green said the governor was not opposed to condemnation, but believes negotiations between a landowner and developer should be conducted on a level playing field.

- HB 101 calls for an excise tax to collect \$3 per megawatt hour. Of the \$3, the state would get 60 percent and local governments where the turbines are located would receive the remaining 40 percent.

This would make revenue from wind power exportation more equitable in comparison to other natural resources such as oil and coal, Green said.

On Monday, the House Revenue Committee approved the bill and also modified it so the tax would not kick-in until 2012. Also, no taxes would be collected from new turbines during the first three years of their existence.

- HB 130 would provide a sales and use tax levied on a facility under construction that would be forwarded to the county or municipality where the project is being constructed.

Freudenthal said problems with large-scale wind energy development, "are simply opportunities dressed in work clothes."

Discussion over wind power is heated. Rules must be created to protect the people of Wyoming while ensuring wind developers can procure the product, Freudenthal said.

"Opportunity seldom knocks twice," Freudenthal said.