Study shows Wyoming wind energy is relatively cheap

Bang for the blade

By MATT JOYCE - Associated Press writer | Posted: Friday, July 2, 2010

CHEYENNE -- Wind developers can produce some of the cheapest wind energy in the West in Wyoming, according to a new study, but the cost advantage decreases when one accounts for delivering the power to West Coast markets.

The Wyoming governor's office and the Wyoming Infrastructure Authority commissioned the study to compare the cost of developing wind resources in Wyoming and other Western states. The study also considers how Wyoming's tax structure for wind energy affects the industry here.

"Wyoming is a competitive resource," said Laura Ladd, energy economics adviser to Gov. Dave Freudenthal. "It's competing pretty closely with Montana and New Mexico. And while Wyoming has the second highest tax structure of any of the states reviewed, it remains among the top competitive states, principally driven by its high capacity factor."

Capacity factor, a measurement of wind resource quality, is the amount of energy a wind farm produces relative to the amount it could produce if the wind blew all the time.

The state paid nearly $40,000 to E3, an electricity market consulting firm in California, to conduct the study, Ladd said.

Developers, lawmakers and the governor's office are in the midst of a heated debate over state taxes on the wind industry. The industry released a study in June showing Wyoming's tax structure to be the most onerous of Rocky Mountain states. Industry officials say that could stifle development in Wyoming.

In the past two years, the Wyoming Legislature passed a $1 per megawatt hour wind energy generation tax that takes effect in 2012 and allowed a sales tax exemption for renewable energy projects to expire at the end of 2011.

Only Washington collects more state tax on wind electricity than Wyoming, according to the study, which includes Wyoming's pending sales and generation taxes.

The Wyoming Legislature's Joint Revenue Interim Committee is currently studying possible changes to Wyoming's tax structure for wind.

Officials of the governor's office commissioned the study partly to help them. It includes a model that allows policy makers to analyze variables, such as different tax structures, and how they affect the cost of producing wind electricity.

The state-by-state comparisons account for a wind farm's construction and maintenance costs, wind resource quality, state and federal taxes, and federal tax credits.

The study finds that only Montana wind development produces cheaper electricity than Wyoming when measuring the cost at the production site. The cost per megawatt hour for energy produced is $77 in Montana, $82 in Wyoming and $89 in New Mexico.

When accounting for the cost of delivery to West Coast markets, Wyoming is third behind California and Oregon. California and Oregon have a delivered cost of $96 per megawatt hour, compared to $107 for Wyoming.

Ladd said the study reveals three major drivers to the cost of a project: capacity factor, the capital cost and the availability of federal tax incentives.

"The state tax picture is important, but it's not as important as those other three," she said.