

# NORTH DAKOTA LEGISLATIVE COUNCIL

## Minutes of the

### ENERGY DEVELOPMENT AND TRANSMISSION COMMITTEE

Wednesday, March 5, 2008  
North Central Research Extension Center  
Minot, North Dakota

Senator Rich Wardner, Chairman, called the meeting to order at 9:00 a.m.

**Members present:** Senators Rich Wardner, John M. Andrist, Robert M. Horne, Ryan M. Taylor, Ben Tollefson, Herbert Urlacher; Representatives Wesley R. Belter, Matthew M. Klein, Shirley Meyer, Todd Porter, Dave Weiler

**Member absent:** Representative Scot Kelsh

**Others present:** Jon Nelson, State Representative, Rugby

Representatives Jeff Delzer and Phillip Mueller, members of the Legislative Council, were also in attendance.

See [Appendix A](#) for additional persons present.

**It was moved by Representative Klein, seconded by Senator Horne, and carried on a voice vote that the minutes of the previous meeting be approved as distributed.**

#### UPDATE BY PUBLIC SERVICE COMMISSION

Ms. Susan Wefald, Commissioner, Public Service Commission, provided information on recent activities of the Public Service Commission. She provided handouts ([Appendix B](#)) on recent siting projects before the Public Service Commission; proposed rules adopted by the Public Service Commission, including wind turbine decommissioning rules; and a requested Attorney General's opinion regarding the Public Service Commission's authority to establish rules for wind turbine decommissioning.

In response to a question from Senator Andrist, Ms. Wefald said technology constantly changes and the commission does not know where the prime locations for wind towers will be in the future.

In response to a question from Representative Weiler, Ms. Wefald said there is a plan filed under the decommissioning rules which will include information so that the site may be restored.

In response to a question from Representative Weiler, Ms. Wefald said the Legislative Assembly could require that the record include how the land was before there was a wind tower built so restoration would be to the same topography.

In response to a question from Senator Urlacher, Ms. Wefald said as a regular practice cables are buried at 24 inches under the soil in this state.

In response to a question from Senator Andrist, Ms. Wefald said the rules provide latitude to improve the soil if the landowner consents.

In response to a question from Representative Meyer, Ms. Wefald said the rules are retroactive and exempt small, older towers that are under 500 kilowatts. She said these are usually privately owned.

In response to a question from Representative Meyer, Ms. Wefald said the opinion from the Attorney General will determine whether the decommissioning rules apply to all wind towers over 500 kilowatts or wind farms 100 megawatts or larger.

Representative Mueller said the one-call system applies to live underground wires; however, dead wires could place farmers in peril because some farming processes go deeper than 24 inches, e.g., subsoilers.

Representative Klein said a wire that is placed 24 inches under the ground could be within 24 inches of the surface years later because of erosion.

#### WIND TOWER SITING AND DECOMMISSIONING STUDY

At the request of Chairman Wardner, committee counsel presented a background memorandum entitled [Siting and Decommissioning of Commercial Wind Farms - Background Memorandum](#). In addition, he provided two handouts ([Appendix C](#)) entitled *State Siting and Permitting of Wind Energy Facilities* and a portion of *Wind Power Siting Regulations and Wildlife Guidelines in the United States*. He said there are commonalities among states, but states differ in the scope of guidelines and in primary jurisdiction for siting decisions. In some states, he said, siting authority rests with a local branch of government, and in other states, primary siting authority rests at the state level. He said when primary siting authority rests at the state level, a variety of agencies may be involved, including state environmental protection agencies, departments of transportation, economic development, and public utilities commissions. He said siting approvals for wind facilities vary significantly by state and these processes fall into five main categories:

1. Mandatory, state-level wind siting statutes.
2. Voluntary guidelines for siting within states.
3. Model ordinances for local governments to apply and use.

4. Local government siting rules.
5. Voluntary checklists and resources for local governments to recommend.

Representative Nelson presented information on the wind siting study to the committee. He said problems exist whenever a new industry comes into the state. He said the state needs to set standards before problems grow. He said the main issue with wind siting is setbacks.

In response to a question from Senator Wardner, Representative Nelson said the state needs standards and local governments need the ability to address local needs.

Representative Mueller presented information on the wind siting study to the committee. He said North Dakota could supply one-third of the nation's electrical needs with wind. He said there is a 1 percent per year growth rate for electricity. He provided an example of two wind developers--Florida Power and Light and Peak Wind Development--with a common boundary with a disagreement as to how far to set back from the boundary. He said the industry standard is five rotor blade diameters from the property line as the prevailing winds blow and three rotor blade diameters otherwise.

In response to a question from Senator Wardner, Representative Mueller said the parties made many attempts to resolve the issue.

In response to a question from Senator Wardner, Representative Mueller said Florida Power and Light was first in time to file paperwork, and Peak Wind Development has neighboring property and would like Florida Power and Light to increase the distance of setbacks.

Mr. Bill Brudvik, Ohnstad Twichell Law Firm, Mayville, provided information on wind siting. He said Minnesota has effective rules for wind siting. He said wind siting involves legal principles. He said rules are needed for the protection of property rights. He said because property rights are involved, there may be a constitutional takings problem relating to the permit for the project being issued or not issued.

In response to a question from Representative Meyer, Mr. Brudvik said the county or township jurisdiction over the siting of wind towers is a conditional use permit needed for the transmission line.

In response to a question from Representative Belter, Representative Mueller said the issue is a legal issue rather than an engineering issue.

In response to a question from Representative Belter, Representative Mueller said first-come, first-served does not seem fair when parties file the paperwork at about the same time. He said wind is like oil under two separate parcels of property. He said the state has rules relating to oil and should have rules relating to wind.

In response to a question from Senator Andrist, Representative Mueller said out-of-state wind developers may not operate under the same standards as local property owners.

Mr. Jamie Middle, Barnes County landowner and member of Peak Wind Development, presented information to the committee. He said Peak Wind Development is a community-based project in which each individual gets a percentage of the project. He said the land of Peak Wind Development intermingles with land leased to Florida Power and Light. He said Peak Wind Development has approximately 30,000 acres. He said the first phase of development is for 200 megawatts and the project allows for up to 400 megawatts.

In response to a question from Senator Wardner, Mr. Middle said he would be satisfied with the five rotor blade diameter length standard for setbacks.

In response to a question from Representative Porter, Ms. Wefald said the Public Service Commission could decide setbacks for projects over 100 megawatts because the commission may review direct and indirect economic impacts.

In response to a question from Senator Taylor, Mr. Middle said a good model for setbacks is Minnesota law.

In response to a question from Representative Weiler, Mr. Middle said Peak Wind Development is made up of 80 landowners. He said the landowners are partnering with a professional wind development company.

In response to a question from Representative Klein, Mr. Middle said the Minnesota law requires five rotor blade diameters for the setbacks as to prevailing winds and three rotor blades diameters to the sides of the wind tower.

Mr. Brad Crabtree, Spring Valley Township, provided a presentation on wind farm siting and landowner compensation ([Appendix D](#)). He said wind wakes extend downwind up to 8 to 11 times the turbine rotor diameter. He said wind is like oil and gas wells and is a shared resource. He said the property owner affected by a wind wake has a property right in the wind. He said he supports wind resource-based compensation for cooperative development. Under this plan, he said, the landowner hosting the turbine would receive 25 percent of the turbine payment and the remainder would be allocated in proportion to percentage of wind wake affecting each landowner's property. He said he supports the five rotor blade diameters for prevailing and three rotor blade diameters for nonprevailing winds for setback requirements. He said he supports restoring Public Service Commission siting authority over wind farms of 50 megawatts.

In response to a question from Representative Belter, Mr. Crabtree said Florida Power and Light did not leave Spring Valley Township because of the township ordinance. He said Florida Power and Light stopped development because of changes in Minnesota regulations.

In response to a question from Representative Belter, Mr. Crabtree said the Wilton wind farm project was in the pipeline long before Florida Power and Light stopped developing in Spring Valley Township.

He said the Wilton wind farm project did not have anything to do with the project in Spring Valley Township.

In response to a question from Senator Andrist, Mr. Crabtree said the wind development industry needs economy of scale. He said wind farm developers use the same rotors and same towers for each project. He said lack of similarity is not economically viable.

Mr. Shane C. Goettle, Commissioner, Department of Commerce, provided a handout ([Appendix E](#)) entitled *North Dakota Wind Energy Development*. He said there is a different wind resource at higher elevations. He said this resource has not been mapped as well as the resource close to the ground.

In response to a question from Senator Urlacher, Mr. Goettle said the towers are about the same height; however, some towers may be higher than others as to sea level because of their placement on the terrain.

In response to a question from Representative Porter, Mr. Goettle said Empower North Dakota has not looked at wind tower siting regulation.

In response to a question from Senator Taylor, Mr. Goettle said the Department of Commerce has worked with the Energy and Environmental Research Center in providing grants for wind monitoring. He said the federal production tax credit is key to wind development and expires in 2008. He said the tax credit needs to be made permanent for a long period of time. He said wind development ebbs and flows with the reenactment of the tax credit. He said this creates trouble with manufacturing of the wind tower components.

Mr. Goettle said Empower North Dakota is in the comment gathering stage and will meet one more time in Williston. He said after that meeting, the comment gathering stage will end and the committee will look at policy recommendations to be finalized in May or June of 2008.

Mr. Ron Rebenitsch, Basin Electric Power Cooperative, gave a presentation on wind energy ([Appendix F](#)). He said it costs between six and eight cents per kilowatt-hour to produce wind power. He said the cost after tax incentives is three to five cents per kilowatt-hour. He said hydrogen provides an opportunity to store intermittent wind energy. He said wind can replace gas turbine plants because it costs seven cents per kilowatt-hour to make electricity from gas. He said it does not pay to replace coal with wind because it costs only 1.5 cents per kilowatt-hour for coal. He said the remainder of the cost for electricity produced from coal is the generation, transmission, and distribution of the electricity to consumers. He said over half the cost of power supply is the "wires," not the electricity. Because of this, he said, net metering is not fair.

Mr. Randy Bush provided handouts ([Appendix G](#)) on and a tour of the wind-to-hydrogen facility.

In response to a question from Representative Porter, Mr. Bush said oxygen is a byproduct of the

creation of hydrogen; however, Basin Electric Power Cooperative does not capture the oxygen because there is no market for the oxygen.

In response to a question from Representative Delzer, Mr. Bush said hydrogen in automobiles is contained in carbon fiber tanks. He said these tanks are very strong and dissipate the hydrogen straight up when punctured. He said the danger to the occupants of the vehicle is the same or less than with gasoline tanks.

In response to a question from Representative Meyer, Mr. Bush said the vehicles that run on hydrogen automatically change between hydrogen and gasoline. He said the change may be done with the push of a button. He said there is a power increase with the use of gasoline.

## ENERGY STUDY

Representative Nelson provided information on the Powering the Plains Project. He said the project focuses on developing new resources for energy.

Mr. Crabtree, Program Director, Great Plains Institute, gave a presentation ([Appendix H](#)) on the Powering the Plains Project entitled *Energy Security, Economic Prosperity & Climate Stewardship: A Roadmap for Our Region's Energy Future*. He provided handouts on the Powering the Plains energy transition roadmap. These handouts are on file in the Legislative Council office.

In response to a question from Senator Urlacher, Mr. Crabtree said China has some of the dirtiest coal production in the world. He said the average Chinese person uses one-fifth the energy of a United States citizen and a person from India uses one-twentieth the energy of a United States citizen.

In response to a question from Representative Porter, Mr. Crabtree said it is a mistaken notion that renewable is favorable to nonrenewable. He said the environmental impact is more important than the renewability.

In response to a question from Representative Porter, Mr. Crabtree said the demand for water will increase as the need for power expands. He said global warming will lessen the water supply.

In response to a question from Representative Tollefson, Mr. Crabtree said one way to get a reduction of carbon dioxide in China is through political pressure. He said the United States is the last country not to oppose a reduction in greenhouse gases.

In response to a question from Senator Andrist, Mr. Crabtree said the preponderance of scientific opinion is that carbon dioxide and temperature are closely related. He said the climate changes with or without human intervention. He said the scientific community believes that human actions are so large in scale that the pace and scope of global warming has been increased.

**TOUR OF BIODIESEL PLANT IN VELVA**

The committee toured the Archer Daniels Midland Company canola crush and biodiesel plant in Velva and received a presentation ([Appendix I](#)) by Mr. Sean Rath, Plant Manager, and Mr. Tim Bourdeau, Biodiesel Plant Superintendent.

No further business appearing, Chairman Wardner adjourned the meeting at 4:00 p.m.

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Timothy J. Dawson  
Committee Counsel

ATTACH:9