

NORTH DAKOTA LEGISLATIVE MANAGEMENT

Minutes of the

ENERGY DEVELOPMENT AND TRANSMISSION COMMITTEE

Wednesday, August 19, 2009
Roughrider Room, State Capitol
Bismarck, North Dakota

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

Members present: Senators Rich Wardner, Jim Dotzenrod, Robert M. Horne, Joe Miller, George Nodland; Representatives Tracy Boe, Mike Brandenburg, Matthew M. Klein, Todd Porter, Dave Weiler

Members absent: Senator John M. Andrist; Representative Lee Kaldor

Others present: Representative Shirley Meyer, member of the Legislative Management, was in attendance.

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

At the request of Chairman Wardner, committee counsel reviewed the [Supplementary Rules of Operation and Procedure of the North Dakota Legislative Management](#).

ENERGY STUDY

Mr. Shane C. Goettle, Commissioner of Commerce, provided testimony ([Appendix B](#)) on Empower North Dakota. He said the major policies are to grow all of North Dakota energy, base decisions on science and economics, support research and development, choose incentives over mandates, regulate fairly, and be environmentally responsible.

In response to a question from Senator Horne, Mr. Goettle said the coal gasification plant is the first in the nation and is worthy of recognition.

In response to a question from Senator Miller, Mr. Goettle said the water resource study will be of existing projects and planned projects and the water needs for those projects. He said the availability of water is more important than the quality of water for the energy industry. He said the study of water will result in a number of maps of the resources available in this state and the limitations on those resources.

Mr. Tony Clark, Commissioner, Public Service Commission, presented written testimony ([Appendix C](#)) on the Public Service Commission's activities in regard to energy development in this state. He provided information on active North Dakota wind projects, the siting of transmission projects, pipeline siting cases, and work with regional groups for transmission planning.

In response to a question from Representative Klein, Mr. Clark said the Western Area Power Association and Basin Electric Power Cooperative are not part of the Midwest ISO. In North Dakota, he said,

wind developers are wanting to sell into the markets east of this state and are driven to use Montana Dakota Utilities Company's and Otter Tail Power Company's transmission because of free access. He said there would be a rate pancake if the developers used Basin Electric Power Cooperative's or the Western Area Power Association's transmission.

In response to a question from Representative Brandenburg, Mr. Clark said there is movement within the Federal Energy Regulatory Commission and Congress for cost allocation for new transmission to be spread out and socialized. He said this would make pricing more of a postage stamp price. He said if there is a federal renewable energy standard, there is a good argument that the cost of transmission for the renewable energy should be more spread out.

In response to a question from Senator Nodland, Mr. Clark said present wind projects generate electricity for local utilities and are not shipping to far-off load centers.

In response to a question from Representative Klein, Mr. Clark said wind displaces natural gas and pairs well with hydroelectric generation.

In response to a question from Senator Horne, Mr. Clark said the Public Service Commission has received a letter of intent for the Heartland Wind Project. He said a letter of intent is a cursory glance at future plans. He said the next step is for an application that will contain details. He said the letter of intent was sent a little over a year ago and the intent was to phase in the wind project over time.

In response to a question from Senator Miller, Mr. Clark said the Midwest ISO cost allocation does not relate to the cost of generation, which is a state public utilities commission decision.

In response to a question from Representative Brandenburg, Mr. Clark said there has been significant progress in achieving consensus that transmission is needed, especially through Minnesota. He said the CapX 2020 project is building transmission and one line will go from Fargo to the Minneapolis area.

In response to a question from Representative Brandenburg, Mr. Clark said CapX 2020 is a regional reliability project and not meant to move power to eastern load centers.

In response to a question from Representative Klein, Mr. Clark said the Federal Energy Regulatory Commission has not implemented backstop siting authority. He said there is a potential for the use of

this authority for siting a line from Arizona into California. He said there is interest in Congress to give the Federal Energy Regulatory Commission more backstop siting authority.

In response to a question from Representative Brandenburg, Mr. Clark said the Midwest ISO has proposed and implemented reforms so that the queue is less first come, first served and more based on viable projects.

Ms. Sandi Tabor, Director, North Dakota Transmission Authority, provided written testimony ([Appendix D](#)) to the committee on recent activities of the North Dakota Transmission Authority. She said the North Dakota Transmission Authority has been working with local-, regional-, and national-level transmission planning. She said last session a bill allowed the North Dakota Transmission Authority to obligate up to 30 percent of a project, not to exceed \$240 million, as a moral obligation of the state. She said the North Dakota Transmission Authority is developing a screening process to determine the financial soundness and to create due diligence protocols to determine whether to issue bonds backed by the moral obligation of the state for a particular project. She said because the North Dakota Transmission Authority lacks expertise, the authority issued a request for proposals for bonding counsel and a senior underwriter. She said the North Dakota Transmission Authority should have protocols by the end of the year. She said a resolution adopted last session directed a cap and trade study and the Industrial Commission will secure the services of an economics firm. She said the North Dakota Transmission Authority is looking for an economics firm and is doing the project development for this study.

In response to a question from Representative Klein, Ms. Tabor said any new power purchase agreements must meet the Minnesota Next Generation Act, but not existing projects.

In response to a question from Senator Wardner, Ms. Tabor said the CapX 2020 project is moving along as planned.

In response to a question from Representative Klein, Ms. Tabor said the CapX 2020 line from Fargo to the Minneapolis area will be a 345-kilovolt line.

In response to a question from Representative Brandenburg, Ms. Tabor said the Green Power Express and other groups are looking at large high-voltage overlays to move energy to the east. She said these groups are waiting for federal action on transmission and if there is a renewable energy standard at the federal level.

Mr. Loren Laugtug, Manager, Legislative Affairs, Otter Tail Power Company, presented information to the committee. He said there are different methods for paying for transmission in the Midwest ISO. He said for a generator outlet, the generator pays for all of the transmission. He said renewable energy can use the excess capacity. He said the CapX 2020 line from Fargo to Monticello is a reliability line that

provides regional benefits. He said the cost of the line is divided between local utilities that benefit from the line. He said local utilities should not have to pay for a line to Chicago. He said if the local utilities were required to pay under cost allocation by the Midwest ISO, the utilities would pull out of the Midwest ISO.

In response to a question from Representative Brandenburg, Mr. Laugtug said no utility can designate extra capacity and it is used on a first-come, first-served basis. He said when the capacity is full then the user would have to pay for network upgrades.

In response to a question from Representative Boe, Mr. Laugtug said membership in the Midwest ISO is voluntary.

Mr. Justin Kringstad, North Dakota Pipeline Authority, provided a presentation ([Appendix E](#)) on recent activities of the North Dakota Pipeline Authority. He said it is anticipated that North Dakota will need additional capacity for transporting crude oil to market after 2010. He said several options are being actively pursued, including Enbridge's proposed portal reversal--Kinder Morgan's Bakken crude project, new interconnecting pipelines, and other options.

In response to a question from Senator Wardner, Mr. Kringstad said the EOG Stanley rail station will transport oil using EOG's rails and trains. He said the economics for the project have the project going forward even though, traditionally, rail transport is more expensive than pipeline transport.

In response to a question from Senator Nodland, Mr. Kringstad said to reduce truck traffic from Stanley to Rhame, there needs to be a smaller gathering pipeline.

In response to a question from Senator Nodland, Mr. Kringstad said potential projects will have the capacity to transport about 370,000 barrels of oil per day; however, not every project will be completed by the oil industry.

In response to a question from Representative Klein, Mr. Kringstad said the Butte pipeline is operational and transporting 120,000 barrels per day to Guernsey, Wyoming, where it terminates. He said the oil at that point is put in the Platte pipeline.

In response to a question from Senator Wardner, Mr. Kringstad said the price differential should be at the normal level of 5 percent to 10 percent if there is adequate pipeline capacity.

In response to a question from Representative Klein, Mr. Kringstad said there is a \$9 per barrel discount for transportation.

In response to a question from Senator Miller, Mr. Kringstad said the Keystone interconnect is the most expensive and furthest out timewise as to completion.

In response to a question from Senator Miller, Mr. Kringstad said the Keystone interconnect is attractive because it would allow the transportation of oil to Oklahoma, which is a good place to transport oil because of refining capacity.

In response to a question from Senator Dotzenrod, Mr. Kringstad said the Kinder Morgan and Alliance pipelines are right next to each other. He said the Kinder Morgan line is a smaller line than the Alliance line.

In response to a question from Senator Horne, Mr. Kringstad said with the development of the Enbridge or Kinder Morgan lines, there could be available the pipeline transport of 370,000 barrels per day by 2011. He said pipelines should be able to provide transport for all oil with current projects based on current assumptions.

In response to a question from Representative Klein, Mr. Kringstad said the Enbridge line has been hydrostatically tested and the increased pressure should not affect the pipeline.

Mr. Lynn Helms, Director, Department of Mineral Resources, provided a presentation ([Appendix F](#)) on shallow gas and a presentation ([Appendix G](#)) on carbon dioxide storage. As to shallow gas, he said, the price for gas is down from \$12 per million cubic feet (MCF) a year ago to \$2.66 per MCF. He said natural gas is at a high in storage. He said it will be years before the natural gas market recovers. He said the shale gas development is creating more gas than can be consumed. He said this has removed any need to produce shallow gas. He said the following list ranks the hits for shallow gas in the counties studied:

1. Ward.
2. Bottineau.
3. Richland.
4. Renville.
5. Bowman.

Mr. Helms said drilling activity for shallow gas has increased from three before the tax incentives to nine after the tax incentives. He said glacial beds produce natural gas which is pressured, and lignite and shale produce natural gas which is under pressure.

In response to a question from Senator Wardner, Mr. Helms said lignite beds are encapsulated in clay and are at low pressure.

In response to a question from Senator Horne, Mr. Helms said there are two types of gas: biogenic and thermal. He said biogenic is created by bacteria that produce methane and thermal is created in the same way that oil is created. He said there is more gas at a higher pressure in the Bakken Formation than in shallow gas formations.

In response to a question from Representative Weiler, Mr. Helms said a unit that will change gas that would otherwise be flared into electricity will go in by the Stanley and Parshall area.

In response to a question from Senator Wardner, Mr. Helms said the funding for a person to conduct seismic activity has not been used because of difficulty in finding an individual with the proper geophysical experience.

As to carbon dioxide, Mr. Helms said there were two bills last session relating to carbon dioxide. He said one bill determined who owned the pore space

and the other delegated to the Industrial Commission and State Department of Health authority over the storage of carbon dioxide. He said there are three types of storage: enhanced oil recovery, when enhanced oil recovery is converted to carbon dioxide storage, and saline aquifer storage. He said enhanced oil recovery is not done in North Dakota. He said there is a gap between what will be paid for carbon dioxide and the cost to make carbon dioxide. He expects the gap to be closed by carbon credits. He said the Broom Creek saline aquifer can store 500 to 600 years of carbon dioxide that is created in this state. He said the Industrial Commission is creating rules and the rules will contain a fee of one cent per ton of carbon dioxide stored for administration and a fee of seven cents per ton for the trust fund. He said these fees may be adjusted on an annual basis and that the relatively low charge is to avoid pricing carbon dioxide storage out of business. He said over a period of 90 years, natural gas storage has resulted in five accidents and 10 deaths. He said the 10 deaths resulted from explosions. He said carbon dioxide is not explosive. He said carbon dioxide has been used for 40 years for enhanced oil recovery and there have been no deaths resulting from carbon dioxide in that time. He said the public perception as to carbon dioxide storage is that it is as risky as coal mining and the actual risks are low to moderate.

In response to a question from Senator Horne, Mr. Helms said oil companies are willing to pay \$15 to \$20 per ton for carbon dioxide for enhanced oil recovery. He said the \$40 to \$60 per ton cost is for carbon dioxide from power plant emissions. He said Dakota Gasification Company probably creates carbon dioxide at a cost below the cost from power plant emissions and in the range of \$20 to \$30 per ton. He said Canada is using carbon dioxide from the gasification plant because of carbon credits and 99 percent of the minerals in Canada are owned by the Crown.

In response to a question from Representative Boe, Mr. Helms said the company that stores carbon dioxide will have liability for the 40-year active life of the storage and a 10-year closure. He said the state will then issue a certificate of closure and absorb liability. He said the risk drops dramatically at that point. He said by the time the state becomes liable, it will have experience with carbon dioxide storage. He said the first closure would be around 2060 and there would be \$50 million in the trust fund.

Mr. Curtis Jabs, Basin Electric Power Cooperative, presented information on the carbon dioxide capture project at the Antelope Valley Station. He said in June 2007 Basin sent a request for proposals for technology to use for carbon capture. He said in December 2007 Basin made a selection and the feasibility study showed that capture would be between \$45 and \$50 per ton. He said Basin conditioned the feed study on one month's successful data from a pay pilot project. He said the pilot project

showed the carbon capture would cost significantly more. He said in June Basin made a second request for proposals. He said in late July the proposals were received and are being evaluated. He said the project is behind schedule and the feed study should begin in October, at which time Basin should have a better idea as to costs. He said construction will begin in late 2013 at the earliest.

At the request of Chairman Wardner, committee counsel presented a background memorandum entitled [Comprehensive Energy Policy Study](#).

Mr. William Schuh, State Water Commission, presented written testimony ([Appendix H](#)) on the study of water use by each energy sector. He said the timeline for the project is to have a written draft report by February 2010 so that review and modification can be done before the report is published and presented to the committee in August. He said the study will result in a number of maps showing water resources.

In response to a question from Senator Wardner, Mr. Schuh said the Southwest Water Pipeline should take pressure for use off of aquifers. He said the study will look at using the Southwest Water Pipeline for energy use. He said a treatment plant by Lake Sakakawea for water used in the oil industry will depend on cost and access through Army Corps of Engineers' lands.

In response to a question from Senator Horne, Mr. Schuh said this study will look at the Northwest Pipeline as well as the Southwest Water Pipeline and aquifers.

In response to a question from Senator Miller, Mr. Schuh said the study will look at the siting of plant facilities.

Mr. Bob Shaver, State Water Commission, answered questions for the committee. In response to a question from Senator Nodland, Mr. Shaver said the water depot in the Forman Butte Field is for brine dilution and uses 1 acre to 1.5 acre feed per year. He said this is a small amount of water usage that will end as the field develops. He said cities were given water permits that allowed for future growth. He said some cities want to sell extra capacity to industry for profit. He said when a municipality uses water for the energy industry it is not for municipal use, but for industrial use, and an industrial permit is needed.

Senator Nodland said Killdeer refused the Southwest Water Authority because it had an aquifer and sells water to the energy industry.

In response to a question from Representative Porter, Mr. Shaver said there are two types of aquifers--glacial, which are local, and bedrock, which are regional. He said glacial aquifers are affected by weather and have little storage. He said the law requires the protection of senior appropriators, and junior appropriators may be curtailed until the weather changes, i.e., it rains. He said regional aquifers have a lot in storage but the recharge is small in comparison to the amount in storage. He said when a senior appropriator cannot efficiently acquire water under a change in circumstances, the senior

appropriator must make a reasonable effort to capture and then the rights of the junior appropriator are cut. He said the term "reasonable" is debatable and may be litigated in instances in which pressure drops so that a pump is needed in a remote area.

Mr. Joseph R. Dudak, Vice President, ITC Holdings Corp., provided a presentation ([Appendix I](#)) on the Green Power Express. He said his company is an independent transmission company developing a high-voltage overlay to take wind energy from the Dakotas to eastern loads.

In response to a question from Senator Wardner, Mr. Dudak said he has a good reception with landowner groups and there has not been one negative comment on siting in the Dakotas. He said his company intends to use the Federal Energy Regulatory Commission's backstop authority with problem areas.

Senator Wardner said Minnesota has placed regulatory barriers to siting and should allow the siting of transmission that is created to transport green energy.

In response to a question from Senator Miller, Mr. Dudak said his company does not plan on using eminent domain and hopes to negotiate fair and equitable compensation with landowners.

In response to a question from Representative Brandenburg, Mr. Dudak said the wind developer and the ultimate customer decide on the price of the electricity. He said his company does not own the energy, but is the highway for the energy.

In response to a question from Representative Brandenburg, Mr. Dudak said his company is a New York Stock Exchange company and has banking partners and investors that will provide the money for the Green Power Express. He said the main issue is cost allocation, not investment.

In response to a question from Representative Brandenburg, Mr. Dudak said the Federal Energy Regulatory Commission could stretch its authority to site the Green Power Express; however, the hope is that Congress will provide the explicit authority. He said a cost allocation on a project this size has never been done and it will have to be dealt with differently from previous projects.

In response to a question from Senator Horne, Mr. Dudak said the regulatory issues of cost allocation are the largest issues. He said construction could begin within two years if there was the proper regulation and siting. He said the project could be completed within five years.

No further business appearing, Chairman Wardner adjourned the meeting at 2:45 p.m.

Timothy J. Dawson
Committee Counsel

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