

NORTH DAKOTA LEGISLATIVE MANAGEMENT

Minutes of the

ENERGY DEVELOPMENT AND TRANSMISSION COMMITTEE

Tuesday, July 8, 2014
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, John Andrist, Kelly M. Armstrong, David Hogue, Philip M. Murphy, Connie Triplett; Representatives Chuck Damschen, Ben W. Hanson, Todd Porter, Peter F. Silbernagel

Members absent: Representatives Tracy Boe, Mike Schatz

Others present: Jessica K. Unruh, State Representative, Beulah
See [Appendix A](#) for additional persons present.

It was moved by Senator Murphy, seconded by Representative Hanson, and carried on a voice vote that the minutes of the April 8, 2014, meeting be approved as distributed.

KLJ STUDY

Mr. Niles Hushka, Chief Executive Officer, KLJ, gave a presentation ([Appendix B](#)) on Phase 3 of the oil and gas impact study. He said the scope of Phase 3 is to model and project future trends, draw correlations between trends and future infrastructure requirements, and summarize modeling and analysis. He provided information on profitability in the Bakken, federal and protected lands, the water-to-oil ratio for certain wells, the potential for carbon dioxide enhanced oil recovery in the Williston Basin, the change in population, the demand for housing, and potential wild cards.

In response to a question from Senator Andrist, Mr. Hushka said he does not expect technology to affect profitability for the five-year term of the study. He said there would need to be higher oil prices for profitability in certain wells. He said drilling is very sensitive to oil price. He said the amount of initial production greatly affects the amount of time it takes for wells to become profitable.

Mr. Hushka said 21 percent of the mature Bakken is not produced because it is on federal or tribal land. He said as wells move away from the mature Bakken, the oil-to-water ratio is less favorable. He said this creates infrastructure issues because of the truck movement of the wastewater. He said carbon dioxide enhanced oil recovery is not expected at high rates in the next five years. He said the Dakota Gasification contract for the sale of carbon dioxide expires in two years. He said older oilfields near the existing carbon dioxide pipeline are capable of using carbon dioxide for enhanced oil recovery. He said this is a wild card.

Mr. Hushka said the forecasted increase in population is 4.3 percent per year for western North Dakota. He said permanent jobs will increase rapidly throughout the study period. He said temporary jobs will stay consistent. He said there will be high growth throughout the study period. He said the population growth will be higher than the job growth. He said the need for permanent housing is based on permanent jobs. He said there is a 7 percent-plus increase in demand for permanent housing in Williston and Dickinson.

Mr. Hushka said the largest wild cards are if foreign markets are opened to domestic crude, federal lands are opened, or it is easier to develop oil on tribal lands. He said a recent trend is that large banks are investing capital because of the predictability of returns and regulations as to the Bakken field. He said a major issue is the lack of storage in the field. He said if the trains are not on time, there is not enough storage. He said more storage is being made. He said utility corridors are being used in which multiple utilities are placed in the same wide corridor. He said environmental concerns are being responded to by the industry. He said there have been significant improvements in pipeline safety. He said customers used to ask for the cheapest and now are asking for the best product. He said there is great innovation in every component used in the oil and gas industry.

In response to a question from Representative Porter, Mr. Hushka said it is harder to increase gas gathering than oil gathering capacity. He said most gas gathering systems are overlaying two times the infrastructure to

increase capacity. He said oil gathering is designed with excess capacity, and there are other methods of increasing capacity. He said large oil transmission lines are being built, and gathering systems will have multiple choices. He said there will be issues because of batch drilling and large initial productions.

In response to a question from Representative Porter, Mr. Hushka said the industry is catching up on infrastructure because of new capital. He said new capital is being provided to midstream companies. He said the infrastructure is at least one year behind.

In response to a question from Representative Porter, Mr. Hushka said he has not heard of any action in regard to the need to store carbon dioxide or natural gas in pore space. He said these commodities are usually stored closer to market and not in the Bakken.

In response to a question from Senator Andrist, Mr. Hushka said a number of gas processing plants are adding processes to strip propane. He said this will significantly increase the local supply. He said the main issue is storage. He said storage will be added. He said there will be enough propane this winter unless there is an unusual year like last year. He said the price spike last year gave incentives to strip out the propane and store it.

In response to a question from Representative Silbernagel, Mr. Hushka said he thinks there will be 1.4 million to 1.6 million barrels of oil per day because of market constraints. He said this is all the oil that capital can provide.

In response to a question from Senator Triplett, Mr. Hushka said the model includes capital constraint for storage, for railroad transportation, and for gathering.

In response to a question from Senator Triplett, Mr. Hushka said the influx of capital began in early June 2014. He said this is measured by the number of requests for due diligence analysis.

In response to a question from Senator Triplett, Mr. Hushka said the amount of capital is not responding fast enough to change the projections in the study for the next five years. He said it takes time to develop projects once the capital is available.

In response to a question from Chairman Wardner, Mr. Hushka said the East and West Coasts are the major markets for Bakken oil. He said there is some potential at Cushing, Oklahoma; but as midcontinental shale plays mature, these plays will use up the potential. He said if exports are opened, the light sweet crude of the Bakken will be valuable in the international market.

In response to a question from Senator Andrist, Mr. Hushka said oil can be preprocessed before loading on ships to reduce volatility.

In response to a question from Senator Triplett, Mr. Hushka said train-loading facilities are in the planning stages to process oil before loading. He said the vapor point is being closely monitored by the industry. He said the oil on trains today is much more stable than in recent history because it is being closely monitored and handled as is appropriate. He said the oil is being monitored by the loading terminals because of insurance requirements.

It was moved by Representative Silbernagel, seconded by Senator Armstrong, and carried on roll call vote that the committee accept the completion of Phase 3 for payment. Senators Wardner, Andrist, Armstrong, Hogue, Murphy, and Triplett and Representatives Damschen, Hanson, Porter, and Silbernagel voted "aye." No negative votes were cast.

OIL AND GAS PRODUCTION TAX TO CERTAIN STATE HIGHWAYS BILL DRAFT

Committee Counsel presented a bill draft [[15.0114.01000](#)] that would take \$75 million per biennium from the oil and gas production tax and place it in the state highway fund for major improvements and construction of highway corridors impacted by energy development with a priority for four lanes for United States Highway 85. He said the money in the fund would build over the bienniums. He said the \$75 million comes from the first percentage point of the 5 percent tax.

In response to a question from Senator Andrist, Committee Counsel said the Tax Department was contacted and there is enough money to meet the commitments of the first percentage point of production tax for other purposes of the tax as well as the purpose in the bill draft.

In response to a question from Representative Hanson, Representative Porter said a dollar amount was chosen over a percentage of the funds from the first one percentage point of the tax, because that is what is done for the other statutory commitments under the production tax.

Chairman Wardner said the \$75 million is a good number based on the amount of money anticipated to be generated by the production tax and that amount would be capped like the other commitments of those funds.

TRANSPORTATION

Mr. Grant Levi, Director, Department of Transportation, gave a presentation ([Appendix C](#)) on state funding, federal funding, future needs, construction on United States Highway 85, truck traffic, and the freight plan. He said the Department of Transportation is using state money in the west and federal money in the east and central part of the state. He said the agricultural industry has grown tremendously throughout this state. He said he was concerned with federal funding, and the state will get through this construction season because the department will only do what the federal government has committed to pay for.

Mr. Levi reviewed major projects, including bypasses. He said United States Highway 85 will be four lanes between Watford City and Williston by the end of 2015. He said the bridge will take longer and should be completed by the fall of 2016. He said the next goal is to work on the Long X Bridge, which needs environmental clearance on the corridor all the way to Interstate 94. He said this will take time.

Mr. Levi said the difference between bids in the eastern and the western part of the state is becoming less.

Mr. Levi said truck traffic has increased 22 percent statewide and 53 percent in the west from 2010 to 2012 and is still increasing. He said the size of loads is increasing, and an increase of 10 percent on a tandem axle increases the damage by 44 percent.

Mr. Levi reviewed the temporary permits for nonhazardous materials in highway right of way. He said this is the transportation of freshwater through pipelines in the ditch. He said the law requires a utility to have a public purpose to permanently locate facilities in the right of way. He said the department does not want to compete with the private sector.

In response to a question from Chairman Wardner, Mr. Levi said when the temporary pipelines need to cross a road they use a drainage structure and some bore pipe under the road. He said there is interest in using the right of way in the eastern part of the state because of the increase in tiling. He said he does not want highway construction in the future to be hampered by the placement of facilities in the highway right of way today.

Chairman Wardner said the committee may need an update on the North Dakota Freight Transportation Infrastructure System because of it being a new development.

Dr. Denver Tolliver, Director, Upper Great Plains Transportation Institute, gave a presentation ([Appendix D](#)) on the infrastructure needs for county, township, and tribal roads and bridges in this state. He said the statewide need for unpaved road investment for the next 10 bienniums is \$5,398,400,000. He said the unpaved road investment needs in the oil patch for the same time period is \$2,909,400,000. He said the need for investments in paved roads for the next 10 bienniums is \$2,685,000,000 statewide and \$1,162,000,000 in the oil patch. He said the needs for the 2015-16 biennium for the gravel roadways are \$548 million, for the paved roadway are \$377 million, and for the gravel-to-pavement option is \$58 million. He said the total needs for the the 2015-16 biennium, excluding bridges, are \$983 million. He said the gravel-to-pavement option is for certain roads for which a cost-benefit analysis shows the roads should be changed from gravel to pavement.

In response to a question from Representative Porter, Dr. Tolliver said for the gravel-to-pavement roads all had 500 trucks per day, and the amount will stay high. He said governmental entities can decide whether roads should be paved based upon the review of the truck counts.

In response to a question from Representative Porter, Dr. Tolliver said he could look at the effect of accelerated gathering pipelines on certain roads. He said the Legislative Assembly should look at the benefits of accelerating gathering pipelines.

In response to a question from Representative Porter, Dr. Tolliver said he would be happy to work with KLJ on the effect of investment in the gathering systems to see if pipeline investment affect roads.

Mr. Tim Horner, Program Director, Transportation Learning Network, Upper Great Plains Transportation Institute, answered questions for the committee. In response to a question from Representative Porter, Mr. Horner said if there is enough structure to mill a road, then there does not need to be as much widening. He said in North Dakota milling is not used much because of having to take the road out of service. Generally, he said, overlay and widening are used. He said the first option is to overlay, the second to overlay and widen, and the third to reconstruct. He said this starts with the cheapest and moves to the most expensive.

In response to a question from Senator Hogue, Dr. Tolliver said the institute looked at revenue sources for roads in 2010. He said a study combining needs with taxes has not been requested.

PUBLIC SERVICE COMMISSION UPDATE

Mr. Brian P. Kalk, Chairman, Public Service Commission, provided written testimony ([Appendix E](#)) on key items in projects, transmission development, gas pipeline safety, coal mine reclamation, utility rate increases, and the Territorial Integrity Act. He said on June 2, 2014, the federal Environmental Protection Agency (EPA) issued proposed rules on existing source guidelines for limiting carbon dioxide. He said there is no guarantee that the final rules will mirror the proposed rules. He said his concern is with the impact on reliability to the electrical power grid. He said 17.2 miles of natural gas gathering pipeline are now under jurisdiction of the commission as to safety. He said this is a significant development. Recently, he said, certificates of site compatibility have been issued, and construction is underway or is expected to begin soon on 814.5 megawatts of new wind generation. He said Basin Electric Power Cooperative joined the Southwest Power Pool. He said the commission is requesting jurisdiction over intrastate liquid lines. He said utility rate requests spike when utilities need to build facility and recover costs.

In response to a question from Senator Armstrong, Mr. Kalk said if there is a fine of a low amount for a one-call violation, it is not cost-effective to litigate to collect the amount through the court system.

In response to a question from Representative Hanson, Mr. Kalk said the commission has a policy that allows excess funds to be used for bonuses to retain pipeline inspectors. He said last legislative session, the commission asked for pay increases that were for pipeline inspectors that were receiving around \$40,000 a year. He said the private sector pays between \$80,000 to \$120,000 per year.

In response to a question from Representative Silbernagel, Mr. Kalk said CAPX 2020 shores up reliability in eastern North Dakota. He said the next 10-mile line from Ellendale to the South Dakota border opens up the availability to transport energy from wind and from a coal mine in the center part of the state.

In response to a question from Senator Hogue, Mr. Kalk said the hearing process for siting the Sandpiper pipeline was a unique process. He said there was a new dynamic of labor unions in support of the pipeline. He said these labor unions will weigh in heavily in Minnesota, and he thinks the route through Minnesota will be approved. He said Enbridge has started construction in this state of certain facilities.

ENVIRONMENTAL ISSUES

Mr. David Glatt, Chief, Environmental Health Section, State Department of Health, gave a presentation ([Appendix F](#)) on federal carbon dioxide regulation, the Tesoro pipeline spill, brine issues and spill responses, and technically enhanced naturally occurring radioactive material. He said the EPA rules call for a 30 percent reduction in carbon dioxide by 2030. He said North Dakota currently produces 1,994 pounds per megawatt-hour for all sources. He said the EPA wants reductions to 1,817 pounds per megawatt-hour by 2020 and 1,783 pounds per megawatt-hour by 2030. He said the EPA has provided a number of options for achieving the goals. He said 6 percent efficiency increases at power plants has been assumed by the EPA. He said one way to achieve the goals is to change fuel sources from coal to natural gas. He said the coal can be used, and there can be offsetting through renewable resources. He said efficiency can be used, but it is difficult to verify or account for energy efficiency gains.

In response to a question from Senator Murphy, Mr. Glatt said there is a chance that the growth in wind energy production will aid in significantly reducing the amount of carbon dioxide to the level it needs to reach under greenhouse gas regulations.

In response to a question from Representative Silbernagel, Mr. Glatt said drying coal produces less emissions and lowers carbon dioxide. He said the main customers for this technology are in China. He said electric plants in the United States are inhibited from investing in this technology because there is not any certainty as to regulation by the EPA.

In response to a question from Chairman Wardner, Mr. Glatt said if a coal plant uses clean coal technology and it is not good enough, there will be stranded costs and consumers will have to pay for the stranded costs in rates.

Mr. Glatt said brine water spills have salinity that is over 10 times saltier than sea water. He said there are two ways to deal with a salt spill—remove the salt or push the salt down. He said there needs to be a new technology that provides for the permanent resolution of salt spills.

Mr. Glatt said the Tesoro spill was 20,600 barrels of oil. He said the method of remediation will be to remove all the dirt, cook the dirt at 1,600 degrees Fahrenheit, and put the dirt back in place. He said Tesoro is working with soil

professors from North Dakota State University to make sure the soil has good things added back into it. He said this process will go on for at least two years, 24 hours a day. He said the State Department of Health visits the site at least once per week.

In response to a question from Senator Triplett, Mr. Glatt said it is difficult to determine the cost for the removal of salt from the soil in Bottineau County. He said one way to deal with the issue is to have a fund that does a couple of projects a year.

Mr. Glatt said the Oil and Gas Division has required disposal wells to have a receptacle for filter socks. He said this removes the economic temptation to illegally dump the socks. He said the State Department of Health is working on regulations to determine a standard for which radioactive material needs to be handled in a different manner than other waste and on regulations as to the tracking of waste. He said this state should handle the waste created in this state as much as possible. He said much higher radioactive waste will be in tank bottoms and pipe scale than in filter socks.

In response to a question from Senator Andrist, Mr. Glatt said the scientific standard for radioactive waste is in an old administrative rule.

Chairman Wardner said we should do something to deal with waste material created in this state. He said if it is created in this state, it should be dealt with in this state. In response to a question from Chairman Wardner, Mr. Glatt said some waste will always need to be shipped out of the state because of having extremely high radioactivity.

In response to a question from Senator Triplett, Mr. Glatt said the tracking of waste rule is close to a public draft and the appropriate concentration is being studied by a national laboratory, and the study should be completed in August.

Mr. Bruce Hicks, Assistant Director, Oil and Gas Division, Department of Mineral Resources, Industrial Commission, gave a presentation ([Appendix G](#)) on remediation projects for salt spills, methods of monitoring salt pipelines through metering and pressure monitoring, and recent rules on pipeline installation. He said pressure testing is the best technique to monitor spills. He said metering and pressure monitoring does not work to detect small leaks.

In response to a question from Chairman Wardner, Mr. Hicks said fines can be \$12,500 per day, and each day is a separate violation. He said if there is a willful violation, it is a Class C felony.

In response to a question from Chairman Wardner, Mr. Hicks said there have been prosecutions. He said five years ago, there were two to three complaints per year. He said now there are 15 complaints that are not finalized. He said in the past, the theory was to have the company use the money that it would have to pay for a fine to correct the problem. He said this is no longer the case, and complaints are being filed sooner.

In response to a question from Chairman Wardner, Mr. Hicks said criminal complaints do not come from his office.

Chairman Wardner said this state is being watched as to how it regulates industry. He said industry is regulated and responsive.

In response to a question from Chairman Wardner, Mr. Hicks said some operators are pretreating oil to reduce volatility. He said there are conferences coming up on oil stabilization that will be provided through the Industrial Commission.

PIPELINES

Mr. Justin Kringstad, Director, North Dakota Pipeline Authority, gave a presentation ([Appendix H](#)) on the transport of oil within and outside of the Williston Basin and on natural gas and the flaring challenge. He said the changes in the last few months include a drop in rail usage and rise in pipeline usage because the spread between coastal markets and midcontinent markets is narrowing. He said there has been a growth in pipelines with two major pipelines announcements in June, including the Enterprise pipeline from Stanley to Cushing, Oklahoma, and the Energy Transfer Partners pipeline from North Dakota to Patoka, Illinois. He said although there has been an increase in the percentage of product being piped that is leaving the well site, because of the growth in oil, there has not been a decrease in the number of trucks on the road. He said there are two competing projects for gas pipelines--the Dakota pipeline to Minnesota and the Northern Border Bakken Header.

In response to a question from Senator Hogue, Mr. Kringstad said transportation should not be constrained as long as there is the availability of rail transport. He said the timeline of the first quarter of 2016 for completion of the Enbridge pipeline appears to be a valid estimate and comes from the company.

In response to a question from Representative Porter, Mr. Kringstad said he will break out numbers for on- and off-reservation flaring. He said there is a slightly higher rate of flaring on the reservation than in the other parts of the state.

FUNDING FOR ABANDONED OIL AND GAS WELL PLUGGING AND SITE RECLAMATION FUND BILL DRAFT

Committee Counsel presented a bill draft [[15.0113.01000](#)] that would raise the deposit in the abandoned oil and gas well plugging and site reclamation fund from an amount not exceeding \$5 million to an amount not exceeding \$10 million per year. In addition, he said, the bill draft would raise the cap for the fund from \$75 million to \$100 million. He said the money comes from the first percentage point of the 5 percent oil and gas production tax.

Senator Triplett said Mr. Hicks said evaporation pits might take \$2 billion and a hundred years. She said the abandoned oil and gas well plugging and site reclamation fund might need more money.

In response to a question from Senator Hogue, Mr. Hicks said he did not know how much money it would take to clean up the sites in Bottineau and Renville Counties, but the operator is responsible for these costs and is paying for these costs at present.

In response to a question from Chairman Wardner, Mr. Hicks said most of the operators are gone for legacy wells. He said 100 years and \$2 billion was offered as food for thought and not as the product of thorough analysis.

In response to a question from Chairman Wardner, Mr. Hicks said the North Dakota Geological Survey was in charge of oil wells in the 1950s through the 1970s.

No further business appearing, Chairman Wardner adjourned the meeting at 2:35 p.m.

Timothy J. Dawson
Counsel

ATTACH:8