

NORTH DAKOTA LEGISLATIVE MANAGEMENT

Minutes of the

TAXATION COMMITTEE

Tuesday, February 9, 2016
 Roughrider Room, State Capitol
 Bismarck, North Dakota

Senator Jessica Unruh, Chairman, called the meeting to order at 9:00 a.m.

Members present: Senators Jessica Unruh, Brad Bekkedahl, Dwight Cook, Jim Dotzenrod, David Hogue, Lonnie J. Laffen, Connie Triplett; Representatives Jason Dockter, Glen Froseth, Patrick R. Hatlestad, Craig Headland, Tom Kading, Jim Kasper, Jerry Kelsh, Vicky Steiner

Members absent: Representatives Wesley R. Belter, Alisa Mitskog, Marie Strinden

Others present: Representative Blair Thoreson, Fargo
 See [Appendix A](#) for additional persons present.

It was moved by Senator Cook, seconded by Representative Dockter, and carried on a voice vote that the minutes of the September 10, 2015, meeting be approved as distributed.

ANNUAL REPORT ON BUSINESS INCENTIVES**Department of Commerce**

Chairman Unruh called on Ms. Carla Hahn, Accountability Manager, Department of Commerce, for presentation ([Appendix B](#)) of an annual grantor report relating to the business incentive accountability law. Ms. Hahn said the Department of Commerce is required to provide an annual report pursuant to North Dakota Century Code Section 54-60.1-07. She said the statutory provisions of the business incentive accountability law apply to businesses receiving investments from state or local grantors totaling at least \$25,000 per year. She said the law requires business incentive grantors and recipients to enter agreements before an incentive is provided. She said the agreement must contain a description of the incentive as well as the job goals the business hopes to achieve within 2 years. She said recipients must report on their progress towards the stated goals until those goals are met. She provided an overview of the types of business incentives subject to the reporting requirement and provided a summary of the data included in her testimony. She said 662 business incentive agreements were executed between 2010 and 2014 totaling an incentive value of \$97,014,778. She said, of projects reporting for a period of at least 2 years, 23 percent of the projects have achieved stated job creation or retention goals, 29 percent have repaid loan amounts or refunded incentive amounts, 34 percent have not achieved job creation or retention goals, and 14 percent have been closed or written off. She said 2,663 jobs were created and retained over the last 5 years compared to the targeted goal of 2,553 jobs. She said wages and benefits provided during this period also greatly exceeded targeted goals.

In response to a question from Representative Headland, Ms. Hahn said she would followup on the type of business incentives categorized in table three under the description of "Executive, Legislative, and Other General Government Support" and provide a response to the committee.

ENHANCED OIL AND GAS RECOVERY STUDY**Industrial Commission**

Chairman Unruh called on Ms. Karlene Fine, Executive Director and Secretary, Industrial Commission, to provide an overview ([Appendix C](#)) of the Bakken CO₂ Storage and Enhanced Oil Recovery Program and other related studies conducted by the Energy and Environmental Research Center (EERC) through the Oil and Gas Research Program. Ms. Fine said the Industrial Commission oversees the Oil and Gas Research Program which is funded by a percentage of the state's share of oil and gas gross production tax and oil extraction tax revenues. She said every dollar awarded through the fund must be matched dollar-for-dollar with other funds. She described the six ongoing contracts the Oil and Gas Research Program has with the EERC. She said funding for the Bakken CO₂ Storage and Enhanced Oil Recovery Program has totaled over \$2.5 million. She said the majority of the funding was provided by the Department of Energy and \$400,000 was provided by the Oil and Gas Research Program. She said the purpose of the Bakken CO₂ Storage and Enhanced Oil Recovery Program is to develop improved tools and techniques to evaluate fluid flow in tight rocks to determine the potential for enhanced oil recovery in the Bakken using carbon dioxide (CO₂).

Chairman Unruh said the studies Ms. Fine discussed pertain to the scientific and technological aspects of the committee's study and are important to consider as the committee entertains any discussions regarding tax policy.

Senator Cook said the studies are especially important in light of the federal Clean Power Plan, and asked Ms. Fine whether she believed enhanced oil recovery technology would prove successful in this state. In response, Ms. Fine said the technology has already proven successful in a laboratory setting, but has yet to be successfully demonstrated in the field. She said field tests will occur throughout 2016, but she cannot speak to the number of wells that will be tested.

Chairman Unruh said the committee may visit the EERC's facilities later in the year to receive first-hand knowledge of some of the projects the EERC is undertaking.

In response to a question from Representative Froseth, Ms. Fine said it is not expected reduced oil prices will impact funding for the Oil and Gas Research Program as the program is one of the first items funded with oil and gas gross production tax and oil extraction tax revenues.

In response to a question from Senator Dotzenrod, Ms. Fine said Phase II of the EERC's research spanned from 2014 through 2015 and the most recent award will fund research through 2016. She said the EERC hopes to see results by the end of 2017.

Attorney General's Office

Chairman Unruh called on Ms. Margaret I. Olson, Assistant Attorney General, Attorney General's office, for a presentation ([Appendix D](#)) regarding the status of legal action related to the federal Environmental Protection Agency's (EPA) regulation of CO₂ emissions under the federal Clean Power Plan. Ms. Olson said the EPA conducted a series of rulemaking actions over the last several years to regulate CO₂ emissions for new and existing power plants pursuant to the federal Clean Air Act. She said Section 111(b) of the Clean Air Act pertains to emissions from new, modified, or reconstructed power plants and Section 111(d) of the Clean Air Act, commonly referred to as the Clean Power Plan, pertains to emissions from existing power plants. She said the EPA issued proposed rules, beginning as early as March 2012, for both Sections 111(b) and 111(d). She said the Attorney General and various other state agencies submitted extensive technical and legal comments to the proposed rules. She said this is important to note as a party may not legally challenge the rule without first having objected to it during the public comment period.

Ms. Olson said the final rules were issued on August 3, 2015. She said various states sought to challenge the rules before they were published in the *Federal Register* but all prepublication litigation was ultimately dismissed. She said the Attorney General was not involved in any prepublication litigation but did take some administrative actions prior to the publication of the rules. She said the Attorney General sent a letter to the EPA administrator requesting the rules be stayed, and also filed a petition for reconsideration of the rules claiming adequate opportunity to comment on the content of the final rules was not provided given the drastic changes made to the proposed rules. She said North Dakota went from having one of the least stringent emission reduction goals in the proposed rules to one of the most stringent emission reduction goals in the final rules.

Ms. Olson said the final rules were published in the *Federal Register* on October 23, 2015, at which time North Dakota filed a petition with the United States Court of Appeals District of Columbia Circuit objecting both to the rules pertaining to new power plants and those pertaining to existing power plants. She said 42 separate petitions for review were filed in opposition to the 111(d) rule and have been consolidated into the case of *West Virginia v. EPA*. She said more than 200 attorneys are involved in the litigation opposing the 111(d) rule and multiple parties have intervened in support of the petitioners. She said various parties have also intervened in support of the EPA including environmental groups, public health organizations, power companies, and several states.

Ms. Olson said following the petition for review, several states and other interested parties also filed motions to stay implementation of the 111(d) rule while litigation is pending. She said a stay would allow the petitioners to avoid dedicating tremendous resources towards preparing to comply with the rule's requirements, which may not ultimately be upheld. She said when deciding whether to grant a motion to stay, the court will consider several factors including whether the petitioner is likely to succeed on its legal arguments, whether the petitioner will suffer an irreparable injury, the possibility that others will be harmed by the stay, and whether the stay is in the public interest. She said the main arguments North Dakota focused on in its motion to stay included the following:

- The EPA is not allowed to regulate existing sources of CO₂ emissions under Section 111(d) of the Clean Air Act because these sources are already regulated under Section 112 of the Clean Air Act;
- The EPA exceeded its authority and violated the state's rights under the Clean Air Act;

- The EPA is unlawfully regulating "beyond the fence line" of power plants; and
- North Dakota was not given an opportunity for notice and comment regarding the changes made to the language in the proposed rule.

Ms. Olson said the state's argument regarding irreparable harm was bolstered by the analysis derived from the EPA's own modeling, which predicted the closing of various North Dakota power plants in 2016 and 2018. She said the state also argued the rule deprived North Dakota of its sovereign authority and the state would suffer substantial economic losses in terms of lost tax revenue if the power plants listed in the EPA's model were to close. She said the state also argued it would have no recourse should it succeed in its legal challenge as economic damages cannot be recovered from the federal government. She said a three-judge panel ultimately denied North Dakota's motion to stay noting the state had not met the stringent requirements for a stay pending judicial review.

Ms. Olson said the request for an expedited briefing schedule was granted, which will help speed up the litigation process and hopefully provide agencies tasked with developing a state plan greater certainty as to the requirements under the final rule. She reviewed the briefing schedule and said oral arguments are scheduled for the first week in June. She said it is possible a decision could be received before the September deadline for the state to request an extension for the development of a state plan. She said it is likely that any decision will ultimately be appealed to the United States Supreme Court.

Ms. Olson said, following the United States Court of Appeals District of Columbia Circuit denial of the petitioner's motion to stay the rule, various groups filed petitions with the United States Supreme Court requesting the Supreme Court stay the Clean Power Plan. She said the proceedings in the United States Court of Appeals District of Columbia Circuit will continue regardless of the ruling issued by the Supreme Court on the petitioner's motion to stay. She said a stay granted by the Supreme Court would simply act to pause any implementation of the rule while the litigation proceeds.

Ms. Olson said 16 separate petitions for review, including a 23-state coalition led by West Virginia, have been filed in regard to the 111(b) rule, pertaining to existing power plants, and have been consolidated into the case of *North Dakota v. EPA* as North Dakota was the first to file. She said various interested parties have intervened on behalf of the petitioners and the EPA in the 111(b) case as well. She said a nonbinding statement of issues has been filed in the 111(b) case outlining the arguments expected to be raised in the litigation. She said arguments in the 111(b) case include the following:

- The emission standards required by the rule are based on technologies that have not been adequately demonstrated and are not achievable;
- Carbon capture and sequestration is not a reasonable technology to require at this time;
- The EPA should have created a lignite coal subcategory;
- The rule constitutes an unconstitutional taking of property interests; and
- The rule violates the federal Energy Policy Act of 2005.

Ms. Olson said the timeline relating to the 111(b) litigation has not yet been determined.

In response to a question from Representative Kading, Ms. Olson said if North Dakota elected to not submit a state plan, the EPA would have authority to submit a federal plan on behalf of the state.

In response to a question from Representative Froseth, Ms. Olson said if the United States Court of Appeals District of Columbia Circuit rules in the favor of the EPA, the ruling can be appealed to the Supreme Court and the Court would likely take up the case.

In response to a question from Representative Headland, Ms. Olson said there are potential legislative solutions to the Clean Power Plan, which will be addressed by the following presenter.

In response to a question from Senator Dotzenrod, Ms. Olson said issues regarding states not getting credit for renewables installed prior to January 1, 2013, may be addressed in the briefing but having only 42,000 words to split between over 200 attorneys, it is hard to definitively say what will end up in the brief. She said many of the North Dakota specific issues were raised in the petition for reconsideration filed with the EPA administrator. She said that petition is still pending, so any issues raised in the petition would not be ripe for litigation until after the EPA administrator takes some action.

In response to a question from Representative Kasper, Ms. Olson said the EPA's regulation of CO₂ emissions originated with the case of *Massachusetts v. EPA*. She said in that case, the Supreme Court held CO₂ was a pollutant and the EPA had authority to regulate CO₂ emissions.

State Department of Health

Chairman Unruh called on Mr. David Glatt, Chief, Environmental Health Section, State Department of Health, for a presentation ([Appendix E](#)) regarding North Dakota's plan for compliance with the Clean Power Plan. Mr. Glatt said the State Department of Health is the agency tasked with developing a state plan as it is the agency charged with implementing requirements under the Clean Air Act. He provided background on the Clean Power Plan and said the EPA has allowed states the opportunity to develop their own plan regarding how reductions in CO₂ emissions will be achieved. He said a state's plan must be enforceable at both the federal and state level. He said the state may experience broad impacts, including increased prices for electricity, due to the drastic increase in required emissions outlined in the final 111(d) rule. He said the state has generally managed CO₂ emissions very well and actually reduced emissions by 11 percent from 2005 to 2014 despite increased load growth due to increased activity in the Bakken Formation. He said the new rule forces the department to regulate outside a plant's fence line and consider additional factors such as conservation efforts and different generation sources when formulating a state plan.

Mr. Glatt said a state's plan must be submitted by September 2016, but states are allowed to request a 2-year extension, which the State Department of Health will be requesting. He said even factoring in the extension, a state plan must then be submitted by 2018 and the EPA will likely take a year to approve the plan. He said the state could potentially be looking at 2019 before a final state plan would be approved. He said this timeline is concerning as major interim reductions in emissions must be achieved by 2022. He said companies typically operate within a 10-year timeframe to plan, develop, and implement any changes. He said working within a 2- to 3-year timeframe means changes would need to be implemented at lightning-fast speed. He said the interim reductions will likely not be achievable without some major implications in terms of the reliability and cost of electricity. He said companies have not determined how to address the required reductions without creating substantial economic upheaval. He said the EPA will impose a federal plan on any state choosing not to implement its own plan. He said the department is hopeful the rule will either be stayed, repealed, or modified to allow enough time for the state to realistically achieve the proposed reductions. He said in the meantime, the state will be working towards developing a plan for compliance.

Mr. Glatt said the State Department of Health held several meetings to receive public input on the rule. He said the meetings were attended by approximately 1,500 individuals statewide. He said concerns expressed at the public meetings included the potential impacts on jobs and the future outlook for the state's energy industry. He said Minnesota has also expressed concerns regarding the impact the rule may have on power received by the state. He said 55 percent of the electricity generated in North Dakota is currently transferred to other states and much of that energy is cheap, coal-fired energy. He said if the rule results in the closure of coal plants the public could potentially see up to a 40 percent increase in energy costs. He said this raises concerns regarding low-income individuals, especially in regard to how those individuals will continue to receive adequate heating. He said another concern centers around the remaining useful life of existing power plants. He said if a plant is shut down, the plant may still have outstanding loans to pay and the expenses related to those loans, as well as any additional costs related to new generation sources required to fulfill demands related to the closed plant, will likely be passed on to customers. He said the availability of purchasing credits to offset emissions exceeding state limitations is also uncertain. He said there are only so many credits to go around and some states may decide to bank credits for use at a later date rather than sell them.

Mr. Glatt said it is important for the state to look at an energy policy that addresses CO₂ emissions over the long term. He said nationwide interest in reducing CO₂ emissions is not an issue that will be going away. He said technology behind carbon capture and sequestration should be pursued due to the large amount of coal in the state. He said the state needs to determine how to economically capture CO₂ emissions. He said this technology may take some time to develop so the state may need to consider demand-side conservation and other strategies in the meantime. He said the State Department of Health will be engaging in conversations with the Public Service Commission as a plan is developed. He said the department will also be having discussions with environmental groups, coal company representatives, and low-income individuals to receive additional input on how a state plan might be approached. He said the department hopes to submit a broad-based draft of the plan for public comment this summer.

In response to a question from Representative Headland, Mr. Glatt said an example of a conservation measure would be turning the lights out when you leave a room.

In response to questions from Senator Cook, Mr. Glatt said the State Department of Health has yet to engage in conversations with large industries regarding the potential impact increased electricity costs may have on those industries. He said he was told that a sugar beet facility in this state was anticipating a \$3 million annual increase in electricity costs as a result of the Clean Power Plan. He said the department has yet to consider any legislation requiring electricity generated in this state first meet the demands of North Dakota residents prior to being shipped out of state. He said he would welcome the opportunity to discuss any potential legislation with the committee and said the volume of electricity being sent to out-of-state customers is an issue that may need to be addressed.

In response to a question from Senator Bekkedahl, Mr. Glatt said he does not have an illustration to reflect changes to electricity rates over the time period beginning in 2005, in which demand increased and CO₂ emissions decreased, but he could provide this information to the committee.

In response to a question from Senator Dotzenrod, Mr. Glatt said replacing a coal plant with a natural gas generation plant raises issues regarding leakage. He said once a state closes down a plant, the EPA is very reluctant to allow a state to backslide on the CO₂ emission reductions achieved due to the plants closure. He said a natural gas plant would still have some carbon emissions the state would need to account for. He said the remaining useful life of a plant that closed must also be factored in to any decisions that are made.

In response to a question from Representative Headland, Mr. Glatt said Wyoming is an example of a coal-generating state that had large amounts of pre-2013 wind generation for which credit was not received under the final rule. He said the majority of wind-generated electricity in Wyoming is shipped out of state to California.

In response to a question from Representative Froseth, Mr. Glatt said alternatives to coal-generated electricity include nuclear energy sources and wind-generated energy sources, but work is still being done regarding how to successfully store wind energy.

Senator Cook said it appears the direction of the committee's study has shifted a bit as a result of the Clean Power Plan. He said the original study focused on how CO₂ might be used for enhanced oil recovery, with an eye towards benefits that may be received by the oil industry and the state, but now the committee may also need to consider any policy changes that may be needed to retain a viable electrical-generating industry in the state in light of the emission restrictions put in place by the Clean Power Plan. He said the electrical generating industry pays a large share of taxes in this state and the state has an interest in the industry remaining viable.

Mr. Glatt said he would be happy to relay information on any challenges the industry may be facing in regard to compliance with the Clean Power Plan and work with the committee on any proposed legislation it wishes to consider.

Chairman Unruh said the reason the committee sees such diversity in the presenters listed on today's agenda pertains to the comments made by Senator Cook. She said the committee's study directive needs to be approached from both the back and front end in order to create an energy tax policy that is all encompassing. She said the committee needs to learn about the carbon capture technology that is still in the works as well as technology related to injecting CO₂ for enhanced oil recovery. She said the Clean Power Plan may force the committee to make some decisions before it otherwise may have felt ready. She said policy decisions recommended by the committee in regard to the tax code may hopefully stabilize this environment as much as it can be stabilized. She said there is a technology aspect and a tax policy aspect to solving some of the issues that have been raised. She said the testimony the committee will be receiving today will hopefully leave members more informed when similar issues are discussed during the upcoming legislative session. She said she appreciates Mr. Glatt's input and hopes to have him back to provide further updates to the committee.

Lignite Energy Council

Chairman Unruh called on Mr. Jason Bohrer, President and CEO, Lignite Energy Council, to provide an update ([Appendix F](#)) on the Allam Cycle and options for compliance with the Clean Power Plan. Mr. Bohrer said the Lignite Energy Council is a trade association representing the regional lignite industry, coal mines, and power plants. He said the reason CO₂ is being regulated as a pollutant under the Clean Power Plan is due to the Supreme Court decision in the *Massachusetts v. EPA* in which CO₂ was deemed a pollutant and the EPA was mandated as the agency to regulate CO₂. He reviewed a graph illustrating past and predicted future CO₂ emission levels both with and without the application of the Clean Power Plan.

In response to a question from Representative Kasper, Mr. Bohrer said he was not aware of the exact percentage of United States emissions represented on the graph but he could provide that information.

Mr. Bohrer said North Dakota has some of the lowest electricity rates in the nation. He said coal-producing counties pay some of the highest wages in the state and the coal industry has invested billions of dollars in the state. He said all of these factors contribute to a higher quality of life for residents of the state. He said billions of dollars have also been invested in the coal industry over the last 10 years to promote clean technologies. He said the industry has reduced levels of mercury, sulfur dioxide, hydrogen oxide, and problems related to regional haze. He said the industry currently generates about \$100 million in tax revenue each year and has a \$4 billion economic impact on the state.

Mr. Bohrer said coal plants were built in North Dakota for a variety of reasons. He said in addition to the affordable and reliable source of coal present in the state, the state was also prohibited from building natural-gas-fired power plants in the 1970s, which led to the construction of many coal-fired power plants. He said federal loan guarantees also played a large role in creating the coal industry. He said current state policies that help support the coal industry include the availability of tax exemptions, enhanced oil recovery incentives, and successful research and development partnerships.

In response to a question from Senator Cook, Mr. Bohrer said he would provide a breakdown of the revenue sources that comprise the \$100 million in tax revenue he referenced.

Mr. Bohrer said concerns regarding the Clean Power Plan center around the fact that there are no commercially available compliance mechanisms or technology sources currently available to allow existing power plants to meet the EPA's mandated reductions in emissions. He said the coal industry will be in mortal danger unless significant changes are made to the Clean Power Plan. He said the Lignite Energy Council has yet to identify a compliance solution that would not involve shutting down coal plants if the Clean Power Plan remains unchanged.

In response to a question from Representative Kasper, Mr. Bohrer said utilities would still be able to keep the lights on if coal plants shut down. He said utilities would simply have to build additional capacity using some other source to do so.

Mr. Bohrer said there are solutions that can be applied to existing plants but they are very expensive. He said post-combustion capture technology may be able to be applied to existing power plants to capture, and later sequester CO₂. He said this option would be costly and, in order to comply with the goals set by the EPA for 2030, 90 percent capture technology would need to be installed on all power plants in the state operating at greater than 450 megawatts. He said this would be a huge undertaking. He said the cost to apply this technology to a comparable 150 megawatts plant in Canada was roughly \$600 million. He said despite the costs, the plant in Canada has still experienced issues regarding the capture technology operating on a reliable basis.

In response to a question from Senator Bekkedahl, Mr. Bohrer said emissions from Canadian plants along the North Dakota border would not result in any CO₂ emissions attributable to North Dakota.

In response to a question from Representative Froseth, regarding that North Dakota ships 55 percent of its electricity out of state, Mr. Bohrer said there is the potential for out-of-state contracts to be modified, but those decisions would need to be made by the parties to each contract.

Mr. Bohrer said one of the potential solutions for new power plants is the application of the Allam Cycle. He said the Allam Cycle is an alternative means of producing power. He said the Allam Cycle uses CO₂ rather than steam to spin turbines and generate electricity. He said the Lignite Research Council has provided funding to explore this technology and the Lignite Energy Council has been working with the EERC to further develop and test the Allam Cycle. He said any supportive tax policy regarding the development of the Allam Cycle would help make the project easier for utilities to fund and easier for the investment community to support.

Mr. Bohrer said the next steps the Lignite Energy Council will be taking are to finalize all the figures associated with the Clean Power Plan and determine the total cost to the state's economy. He said the Lignite Energy Council is also working with its members and North Dakota State University to get a better idea of what may occur if coal plants begin to shut down. He said he urges continued support for tax incentives and said one incentive that has not been considered in the past, which may be beneficial, is an incentive applying to manmade CO₂ for use in enhanced oil recovery. He said this incentive would encourage the state to leverage the assets it already has in a way that is beneficial to the state and assists the state in complying with the Clean Power Plan. He said he would also encourage the expansion of the state's research and development partnership with industry in regard to further development of the Allam Cycle.

Mr. Bohrer said a possible plan for compliance could start with the addition of capture technology to existing plants and the injection of CO₂ from those plants into conventional reservoirs for purposes of enhanced oil recovery. He said this could be completed as the Allam Cycle, and technology allowing for CO₂ enhanced oil recovery in unconventional reservoirs, is being further developed. He said both solutions would likely benefit from increased tax incentives related to the use of CO₂ for enhanced oil recovery and increased research and development support from the state. He said finding a solution to the constraints imposed by the Clean Power Plan is important considering the number of jobs associated with the coal industry and the number of businesses in this state that benefit from the low price of electricity.

In response to a question from Senator Triplett, Mr. Bohrer said the reliability concerns he mentioned regarding the plant in Canada involved the capture system failing to operate at as high a capture rate as originally projected and as demonstrated in the lab.

In response to a question from Senator Cook, Mr. Bohrer said he believes the project in the southwestern part of the state is still moving forward. He said he thinks the state can accommodate bringing CO₂ in from Wyoming and capturing CO₂ emissions from the coal industry in this state.

Senator Cook said what he hears Mr. Bohrer saying is that the CO₂ landscape in the state is about to change drastically, but a plan is in the works to meet the Clean Power Plan's requirements, though some assistance may be needed in the form of modifications to tax policy. He said though he may not be looking forward to having this conversation, it is obvious the discussion needs to take place and considering the applicable time lines, the sooner it takes place the better.

In response to a question from Senator Cook, Mr. Bohrer said progress is continuing on the Kemper County project in Mississippi and the intent is to have the plant operational for the latter part of 2016. He said the Kemper County project was financed in part with a portion of the oil revenue received using enhanced oil recovery. He noted this type of financing arrangement only works if oil prices are high.

In response to a question from Representative Hatlestad, Mr. Bohrer said the Lignite Research Council has been looking into ways to potentially improve the amine-based CO₂ capture technology being used in Canada. He said the Lignite Research Council is assessing ways to increase reliability and reduce costs. He said one of the Lignite Research Council's greatest assets is the research and development program, which gives the state the luxury to review what is being done elsewhere and aim to improve it.

In response to a question from Representative Headland, Mr. Bohrer said the Lignite Energy Council has been working with the EERC to further its understanding of how CO₂ acts once it is injected into the ground. He said the Lignite Energy Council believes CO₂ can be injected safely and effectively and remain in the ground long term.

Basin Electric Power Cooperative

Chairman Unruh called on Mr. Dale Niezwaag, Senior Legislative Representative, Basin Electric Power Cooperative, to provide an overview ([Appendix G](#)) of the operations of the Dakota Gasification Company's Great Plains Synfuels Plant in relation to carbon capture and sequestration and Basin Electric Power Cooperative's three-part strategy for compliance with the Clean Power Plan. Mr. Niezwaag said the Dakota Gasification Company is located directly across from the Antelope Valley Station and both plants receive coal from the Freedom Mine, owned and operated by The Coteau Properties Company. He said the Dakota Gasification Company is the only commercial gasification facility that supplies synthetic natural gas. He said the Dakota Gasification Company also provides liquid chemical production, fertilizer production, and CO₂ capture and transport. He said the plant employs about 750 people and uses roughly 18,000 tons of coal per day. He said the plant has reduced its CO₂ emissions by 42 to 54 percent since 1999. He said the plant has been shifting away from the production of natural gas and towards the production of other byproducts over the past several years. He said CO₂ is captured at the plant, compressed, and sent along a 205-mile pipeline for sequestration in Canada. He said there are strategically placed taps along the pipeline that could be used to supply CO₂ to Williston Basin oil fields should that technology ever come into play. He said the Dakota Gasification Company began capturing and transporting CO₂ in 2000 and by February 2015, it delivered its 30 millionth metric ton of CO₂ to Saskatchewan. He said the Dakota Gasification Company captures 3 million metric tons of CO₂ per year. He said the Dakota Gasification Company operates as a closed system and captures any plant emissions for further separation into various byproducts. He said this system can be contrasted with a typical power plant, such as the Antelope Valley plant, where coal is pulverized, sprayed into a boiler, burned, and then CO₂ is emitted into the atmosphere.

Mr. Niezwaag said placement of a carbon capture system along the back of the Antelope Valley Station was considered in 2009. He said the Dakota Gasification Company reviewed detailed engineering studies and received a \$100 million grant from the Department of Energy to pursue the addition of a carbon capture system. He said the Dakota Gasification Company also sought legislation from the state that passed in the form of a 20 percent reduction in coal conversion taxes for every 20 percent reduction in CO₂ emissions, along with an additional 1 percent tax reduction for every additional 2 percent reduction in CO₂ emissions. He said the maximum tax reduction that could be received using the 2009 incentive was a 50 percent reduction in coal conversion taxes. He said a 10-year sunset was also added to the legislation. He said as the Antelope Valley project progressed, it became apparent that the originally planned \$200 million to \$300 million project was quickly ballooning to a \$500 million to \$600 million project. He said the company supplying the capture equipment was unable to provide any guarantees as to the performance of the equipment and it was also determined that 20 to 30 percent of the plant's output would need to be diverted just to operate the capture equipment. He said after careful consideration, the company's board of directors decided it was not worth risking such a large amount of consumer dollars for such uncertain technology. He said the board's decision was likely a good one considering the enormous cost overages experienced by the Weyburn project and the Kemper County project and the difficulties in getting those projects up and running. He said the Dakota Gasification Company plant has utilized the 2009 incentive in an amount ranging from \$2 million to \$3 million per year. He said the Dakota Gasification Company remitted roughly \$7.5 million in coal conversion taxes and about \$10.5 million in total taxes in 2015.

In response to a question from Representative Hatlestad, Mr. Niezwaag said the Dakota Gasification Company does not currently have the capacity to capture enough CO₂ to use for enhanced oil recovery in this state. He said the current CO₂ production could be diverted from Canada once those contracts run their course. He said hundreds of millions of dollars would need to be invested in order for the Dakota Gasification Company to capture increased amounts of CO₂.

In response to a question from Senator Triplett, Mr. Niezwaag said the average percentage of CO₂ emissions captured at the Dakota Gasification Company is 50 percent.

Mr. Niezwaag said Basin Electric Power Cooperative supplies power to nine states and the majority of its power generation is produced using coal-based sources. He said load growth has been met over the last 10 to 15 years through wind and natural gas generation. He said it took Basin Electric Power Cooperative 15 years to develop its current 811 megawatts of wind generation. He said the company is considering adding an additional 1300 megawatts of power generation capacity by 2035.

Mr. Niezwaag said Basin Electric Power Cooperative's three-prong strategy to address the Clean Power Plan includes supporting legal action seeking to delay or overturn the rule while working on developing ways to meet the rule. He said if legal action fails, there may be some legislative options available to further address the rule. He said many elements surrounding the rule remain unknown including the availability of credits and the manner in which states will structure their plans. He said whether states choose to implement rate-based or mass-based plans is important because states can only exchange credits with states having similarly structured plans. He said a rate-based plan limits a state to emitting a certain amount of CO₂ per megawatt hour of electricity produced, whereas a mass-based plan simply places a cap on the total amount of CO₂ a state is allowed to emit. He said until some of these outstanding questions are answered, it is difficult to say what the best course of action would be for North Dakota. He said there are also uncertainties surrounding how the Clean Power Plan will impact infrastructure and pricing for natural gas and electricity. He said it is not only Basin Electric Power Cooperative making this switch, but every utility in the United States and in a very short period of time.

Mr. Niezwaag said to provide some perspective regarding the level of emissions existing coal plants are currently generating, the average coal plant is emitting about 2,200 pounds of CO₂ per megawatt hour. He said a plant with the best clean technology available will still emit about 1,800 to 2,000 pounds of CO₂ per megawatt hour, absent the addition of any carbon capture technology. He said adopting a rate-based plan under the Clean Power Plan would require existing coal plants to reduce their emissions to 1,305 pounds of CO₂ per megawatt hour. He said under a rate-based plan, it would take 2.5 times the amount of wind-generating capacity to replace every 1 megawatt of coal-generated capacity. He said 2,500 megawatts of wind generation would need to be installed in order to replace a 1,000 megawatt coal plant because wind is only generating power about 40 percent of the time. He said it would take a huge addition of wind generation if the state wishes to keep all of its coal plants operating. He said another concern involves the current transmission system's inability to handle such a large influx of wind-generated power as existing generation sources cannot be ramped up or down to accommodate for fluctuations in wind generation.

Mr. Niezwaag said Basin Electric Power Cooperative is spending hundreds of millions of dollars on consultants trying to determine what the impacts of the Clean Power Plan may be, what the market will look like, what the state credit scheme will be, and what the state's ability is to build the amount of wind or gas generation that is needed within the available timeframe. He said the analysis provided by Basin Electric Power Cooperative's consultants formed the basis for the company's statement of irreparable harm. He said the company is currently running various scenarios to determine how generation needs can be met under rate-based scenarios, mass-based scenarios, and alternative options. He said the analysis being conducted is taking into account the remaining useful life of existing plants, the technology that is currently available, the potential rate impacts on consumers, and how a 30 percent reduction in CO₂ emissions might be achieved using a more natural timeline progression to potentially lessen those negative impacts.

Mr. Niezwaag said Basin Electric Power Cooperative assessed what it would need to do to comply with the requirements of the Clean Power Plan by 2022. He said without considering the availability of credits, the company would have to add 1,350 megawatts of new wind-powered capacity, in addition the 500 megawatts the company has already contracted for, and add 1,740 megawatts of new natural-gas-fired capacity. He said adding this level of additional capacity would require over 500,000 acres of land for wind farms and associated facilities, and assuming a 100 percent success rate, would require 15 nearly simultaneous permitting processes and major projects. He said over 1,000 substantial pieces of equipment would need to be purchased and over \$5 billion expended in project costs to meet the EPA's stated goals for 2022. He said if the state is granted a 2-year extension on its plan, and it takes the EPA an additional year to approve the state's plan, Basin Electric Power Cooperative is potentially looking at a 5-year timeline to complete the required permitting, environmental analysis, engineering, and construction necessary to accomplish these goals.

Mr. Niezwaag reviewed the political climate related to the Clean Power Plan and said regardless of the prevailing party in the upcoming presidential election, is not likely that a full rollback of the Clean Power Plan would occur as the Supreme Court has ruled that CO₂ is a pollutant and provided the EPA authority to regulate it. He said in lieu of the rule being repealed, Basin Electric Power Cooperative has assessed two potential legislative fixes to the rule. He said these fixes include allowing renewable energy installed after 2004 to count toward a state's goal and removing the interim benchmarks and extending the final compliance deadline to 2030. He said these may be potential solutions to make the rule more palatable if current legal action proves unsuccessful.

Mr. Niezwaag said Basin Electric Power Cooperative has been making bimonthly trips to the states in which it does business to explain the current situation and receive input from the regulating bodies and utilities in each state. He said the company is doing its best to keep individuals informed and assist in finding the most reasonable solution in complying with the Clean Power Plan. He said the guidance offered to the states by Basin Electric Power Cooperative would be to first let the litigation run its course, allow adequate time to determine whether states seem to be electing a rate- or mass-based system prior to making any decisions on North Dakota's system to avoid undesirable results in the state's ability to trade credits, allow the state an off-ramp if the option for using credits or allowances ultimately does not materialize, and allow consideration for the remaining useful life of generation facilities. He said hundreds of millions of dollars have already been spent to bring plants up to compliance with current regulations on the assumption that plants would be operational for another 10 to 20 years. He said if a plant is shut down, the consumer will still be paying the costs related to that plant, in addition to the costs required to replace the closed plant's generation with generation from another source.

Tax Department

Chairman Unruh called on Mr. Joe Morrissette, Deputy Tax Commissioner, Tax Department, for a presentation ([Appendix H](#)) regarding the coal conversion facilities privilege tax and the coal severance tax, including historical collections, and an overview of the allocation formula related to coal tax revenue. Mr. Morrissette said the coal severance tax is imposed on the act of removing coal from the earth and is imposed at a flat rate of 37.5 cents per ton. He said an additional 2 cent per ton tax is levied for the benefit of the lignite research fund. He said 30 percent of the revenue from the coal severance tax is distributed to the coal development trust fund and the remaining 70 percent is allocated among coal producing counties according to the amount of coal each county produces. He said the 70 percent county allocation is further distributed among the county general fund and cities and school districts within the county. He said the coal conversion facilities privilege tax is imposed on the operator of a coal conversion facility for the privilege of producing electricity or other products from coal. He said the coal conversion facilities privilege tax includes a levy of .65 mills times 60 percent of the installed capacity of the electric-generating plant multiplied by the number of hours in the taxable period and a levy of .25 mills per kilowatt hour of electricity produced for sale.

He said revenue from the .25 mill levy and 85 percent of the revenue from the .65 mill levy is allocated to the general fund. He said the remaining 15 percent of the revenue from the .65 mill levy is allocated to the county in which the electric-generating plant is located. He said the combined annual tax collections for both tax types was about \$38 million in 1999 and about \$38.6 million in 2015, so collections have remained very consistent over time.

State Treasurer

Chairman Unruh called on Ms. Kelly L. Schmidt, State Treasurer, for a presentation ([Appendix I](#)) regarding past distributions of coal conversion facilities privilege tax and coal severance tax revenues to political subdivisions. Ms. Schmidt said the Board of University and School Lands is authorized to make loans to coal development-impacted political subdivisions from the coal development trust fund and instruct the State Treasurer's office to withhold a portion of the political subdivision's coal severance distribution payments as payment on these loans. She said there are six loans currently outstanding and monthly payments for the loans total roughly \$91,000 per month. She said if coal tax disbursements were to cease, the loans would be considered waived. She said the State Treasurer's office has seen a steady increase in these loans over the last several years.

In response to a question from Senator Cook, Ms. Schmidt said she believed language pertaining to the waiver of loans upon the elimination of the coal severance tax is specified in Century Code.

IHS Energy

Chairman Unruh said the Legislative Council staff distributed a handout ([Appendix J](#)) containing a compilation of the monthly progress reports submitted by IHS Energy up to this point. She said representatives from IHS Energy would be appearing at today's meeting via video conference to provide an update ([Appendix K](#)) on the progress of the company's study of enhanced recovery of oil and gas. Chairman Unruh welcomed Ms. Irena Agalliu, Managing Director; Mr. Curtis Smith, Director; and Mr. Min Rao, Senior Consultant; Energy Insight, IHS Energy. Ms. Agalliu said IHS Energy is currently in its 5th month of research in regard to the study project. She said, pursuant to the terms of the contract, IHS Energy has waited for the publication of 2015 data to incorporate into its report. She said data through November of 2015 is currently available in the public domain. She said the last month of 2015 data will be incorporated into the company's production profile of the fields being considered for enhanced recovery as it becomes available.

Ms. Agalliu said IHS Energy began the study by identifying sources of CO₂ within North Dakota and the region, analyzed the economics associated with carbon capture technology and transport, and reviewed the market prices associated with CO₂. She said IHS Energy's Calgary team is currently working on the technical analysis and the framework for North Dakota's economic model. She said the economic model is based on the state's current fiscal situation and will be supplemented with technical data including production profiles, cost information, and additional information related to CO₂ enhanced oil recovery once that information is provided in the completed scientific analysis. She said the team hopes to have the scientific analysis completed by the end of March. She said the team should be ready to present both the technical analysis and the economic analysis related to CO₂ enhanced oil recovery projects for the in-person presentation to the committee at the end of April. She said the remainder of the analysis pertaining to the economic impacts at the state and county level will be conducted following the in-person meeting in April.

Ms. Agalliu said the team is on track to complete the study on schedule and has allowed sufficient time between May and June to write up the initial report and receive any further direction or guidance from the committee regarding the study. She said the material she would be covering today relates to the sources of CO₂ and associated costs as both are significant factors to consider when determining the potential viability of CO₂ enhanced oil recovery in North Dakota.

Chairman Unruh thanked Ms. Agalliu for the update and said it appears the information compiled by the team captures many of the directives supplied by the committee. She reiterated Ms. Agalliu's previous statements regarding the tentatively scheduled in-person meeting in April and said the committee members would have an opportunity to review the assumptions being made and provide additional input regarding the study at that time.

In response to a question from Representative Kelsh, Senator Cook said 154 million cubic feet of CO₂ per day would equal 3 million tons of CO₂ per year.

Tax Foundation

Chairman Unruh called on Mr. Joseph Henschman, Vice President of Legal & State Projects and Operations, Tax Foundation, regarding activities of the Tax Foundation. Mr. Henschman said the Tax Foundation monitors fiscal activities in all 50 states. He said every year the Tax Foundation offers recognition to legislators who have accomplished something extraordinary or outstanding. He said today, the Tax Foundation announced the 10 recipients of the foundation's outstanding achievement in tax reform award. He said he is pleased to present one

of this year's awards to Senator Cook. He commended Senator Cook for the hard work he put in to improving North Dakota's tax system and ensuring the state is not only attractive to individuals and businesses, but is also prudent in how it manages its windfalls. He said this is particularly relevant in light of some of the upcoming challenges the state may face due to decreased oil prices. He said the Tax Foundation thanks Senator Cook for all his hard work over the years.

Senator Cook said he was honored to receive the award and said it takes more than one person to get a bill passed. He said many of the individuals present in the room today represent the individuals it takes to get that work done. He said he accepts the award on behalf of the state.

Chairman Unruh congratulated Senator Cook on the receipt of the award and thanked him for all of the time and effort he has dedicated to making North Dakota an even better place to live and do business.

COMMITTEE DISCUSSION AND DIRECTIVES

Chairman Unruh said the committee may try to hold one more meeting between now and the update that will be received by IHS Energy on April 27, 2016.

Representative Froseth said it may be beneficial to have Mr. Lynn Helms, Director, Department of Mineral Resources, present information to the committee regarding how various formations hold gas. He said one way to comply with the Clean Power Plan may simply be to pump excess CO₂ into the ground, whether it can be used for enhanced oil recovery or not.

Senator Triplett said representatives from the EERC would also be well positioned to speak on this topic. She said she anticipates storing CO₂ in the ground without receiving any revenue from enhanced oil recovery may be quite costly.

Representative Froseth said it may be worth the expense considering the potential level of costs that may arise if the state fails to comply with the new emission rules.

Representative Kelsh said he had a prior discussion with Mr. Niezwaag and learned that certain formations can hold natural gas for thousands of years, but the state would need some return on its investment to make this type of sequestration feasible.

Senator Unruh said the committee has seen some vary large numbers in terms of what it may cost companies to comply with the Clean Power Plan. She said the committee can certainly take a closer look at this over the course of the interim as the study progresses.

No further business appearing, Chairman Unruh adjourned the meeting at 2:20 p.m.

Emily L. Thompson
Counsel

ATTACH:11