Interim Energy Development and Transmission Committee Report
Tuesday, March 4, 2014

Commissioner Julie Fedorchak
North Dakota Public Service Commission
www.psc.nd.gov

Commissioners

Brian P. Kalk
Chairman

Randy
Christmann

Julie Fedorchak

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Overview

1. 2013 Siting Highlights

2. CO2 Symposium

3. Pipeline Regulation

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2013: $1.3 Billion Sited

- 3 Wind Farms – 600 MW
- 2 – 45 MW gas fired generating units
- 100 plus miles of pipelines

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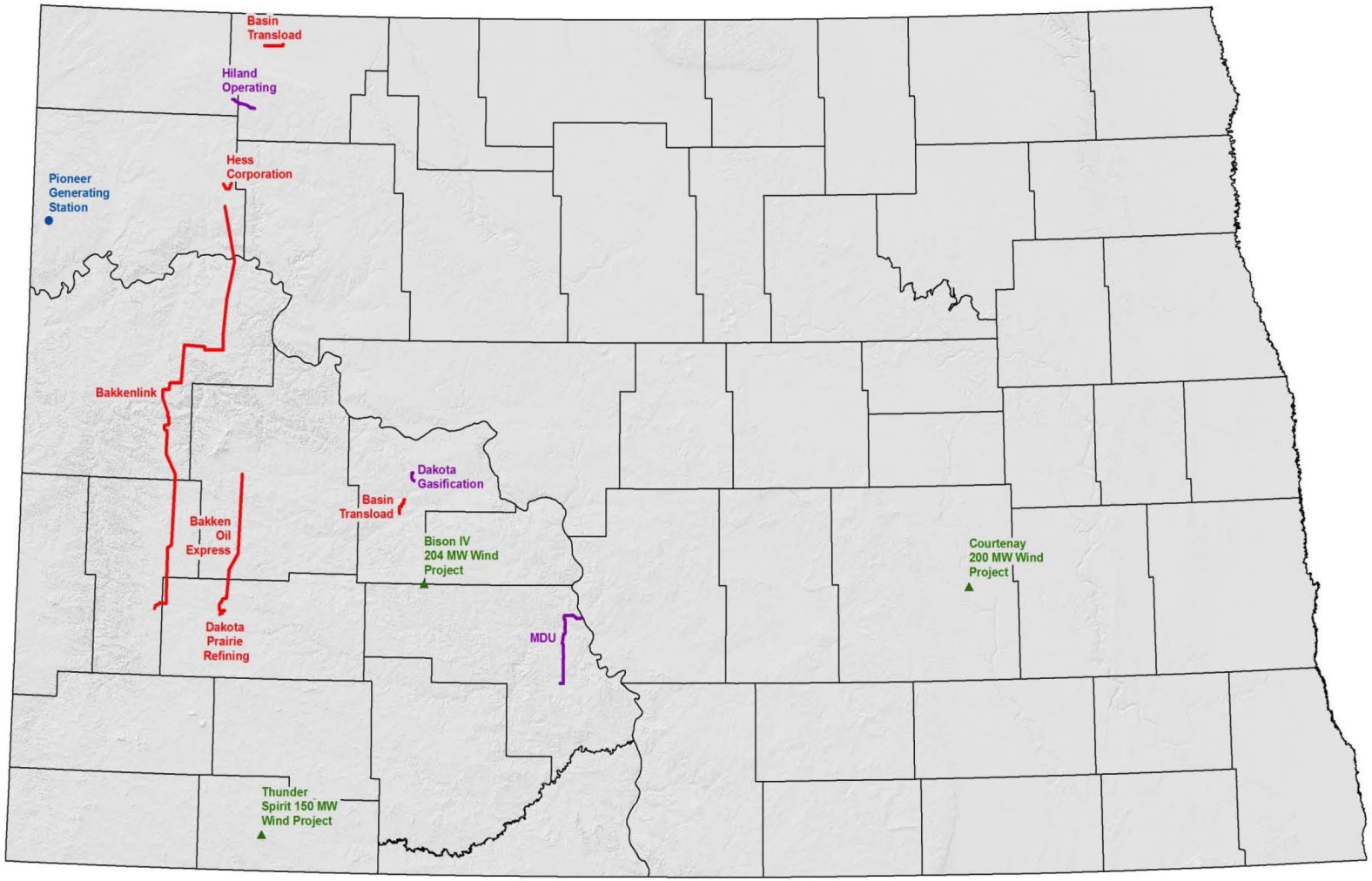
2013 ENERGY PROJECTS SITED



Wind Farms
Natural Gas Generation
Crude Oil Pipeline
Natural Gas Pipeline

North Dakota
Public Service Commission
Public Utilities Division
March 3, 2014

0 20 40 Miles

N

2014

- Lonesome Creek Gas Generation Unit (95 mw)
- Basin 345 kV Antelope Valley to Tioga
- MDU/OTP 345 kV Ellendale to Big Stone
- Sunflower Wind (Morton Cty) (100 mw)
- Enbridge pipeline
  - $1.3 Billion
  - 300 miles
  - 225,000 BBD potential 360,000

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PSC CO2 Symposium

Participants: EPA, NERC, power companies, coal companies, R&D, public

Key Concerns Expressed:

- Reliability
- Cost
- Commercial Availability of CCS
- Flexibility/States Primacy/Timeframes

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Necessary Elements of CO2 Regulations

- State by state approach
- Limitations on premature closing of EGUs
- Recognition for early investments
- More time for technology to develop
- Flexibility for total system vs plant by plant
- Goal: Effective regulatory framework for US leadership in global GHG solutions.

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	Intrastate			Interstate	
	Gathering	Transmission	Distribution	Gathering	Transmission
CO2					
➢ Facility location	NA	PSC[4]	NA	NA	PSC[4]
• Construction	NA	DOH[1], PHMSA[2]	NA	NA	DOH[1], PHMSA[2]
o Operation & Safety	NA	PHMSA[2]	NA	NA	PHMSA[2]
❖ Incident Response	NA	DES, DOH, EPA, local responders, PHMSA[2]	NA	NA	DES, DOH, EPA, local responders, PHMSA[2]
Hazardous Liquids					
➢ Facility location	IC[5]	PSC[4]	NA	IC[5]	PSC[4]
• Construction	DOH[1], IC[1]	DOH[1], PHMSA[2], PSC[4]	NA	DOH[1], IC[1]	DOH[1], PHMSA[2], PSC[4]
o Operation & Safety	?	PHMSA[2]	NA	?	PHMSA[2]
❖ Incident Response	DES, DOH, EPA, local responders	DES, DOH, EPA, local responders, PHMSA[2]	NA	DES, DOH, EPA, local responders	DES, DOH, EPA, local responders, PHMSA[2]
Natural Gas					
➢ Facility location	IC[5]	PSC[4]	Utility, local agency	Federal, IC[5]	FERC
• Construction	DOH[1], IC[1]	DOH[1], IC[1], PSC[3,4]	DOH[1], PSC[3]	DOH[1], IC[1]	DOH[1], FERC[1], PHMSA[3]
o Operation & Safety	?	PSC[3]	PSC[3]	?	PHMSA[3]
❖ Incident Response	DES, DOH, EPA, local responders	DES, DOH, EPA, local responders, PSC[3]	Local responders, PSC[3]	DES, DOH, EPA, local responders	DES, DOH, EPA, local responders, PHMSA[3]

Pipeline Regulation

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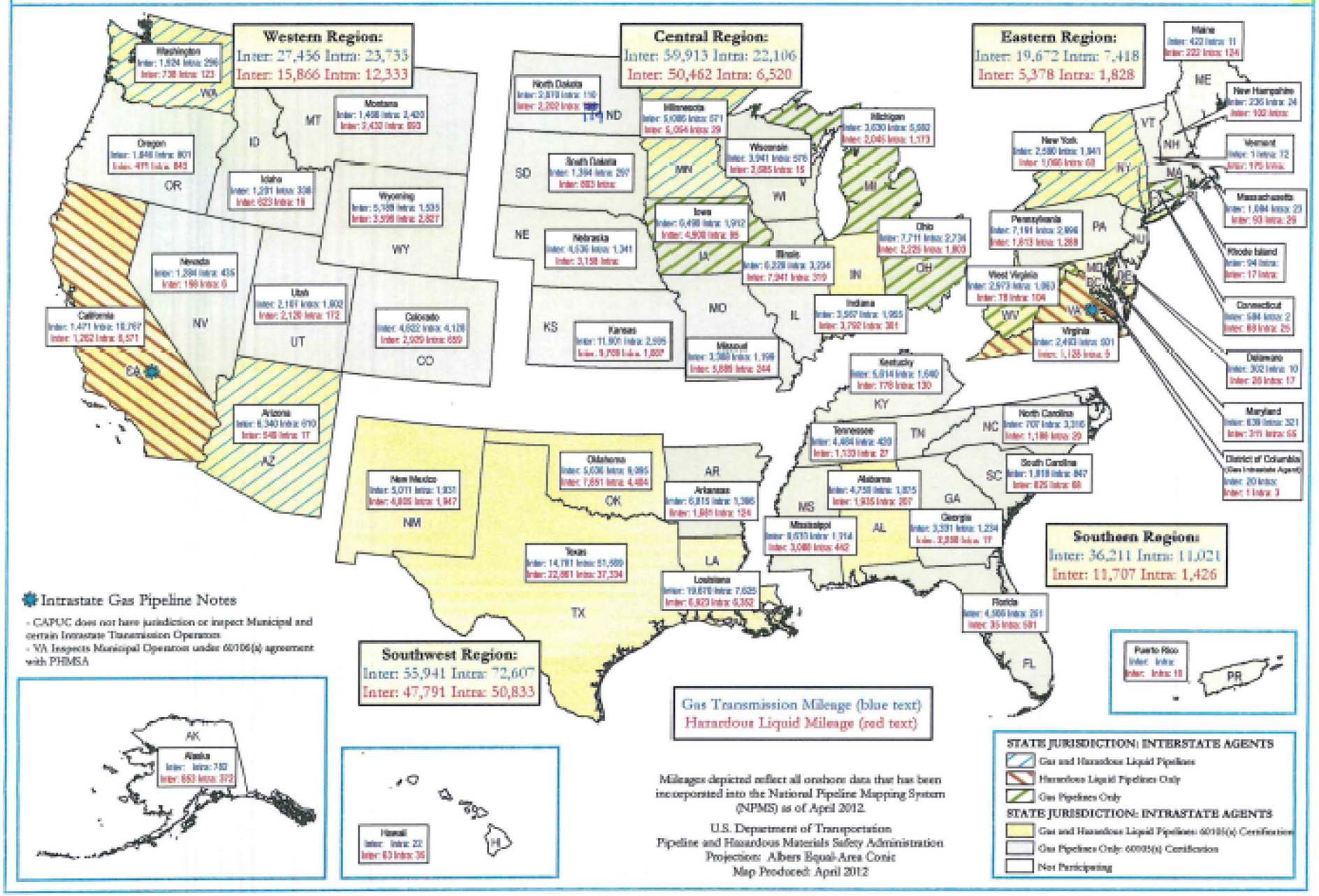
U.S. Department of Transportation
Pipeline and Hazardous Materials Safety Administration

Gas Transmission and Hazardous Liquid Pipeline Safety Programs
Participating States in the Federal/State Cooperative Partnership



Gas Program Overview

- State run program since 1968
- Two full time employees
- Total miles under jurisdiction, 5819.1
- Records inspections and onsite inspections
- State law: no regulations stricter than federal requirements

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Hazardous Liquid (Oil) Pipeline Safety

- Currently federal jurisdiction (PHMSA).
- Total miles regulated in North Dakota: 119 and growing.
- Regionally managed, 30 fully staffed managing 10 Midwest states.
- Closest inspector South Dakota.

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State Program: What's Required?

- Authority for PSC to pursue hazardous liquids program (Already have)
- Adopt federal pipeline safety standards for Hazardous Liquids.
- Hire and train inspectors.
- Damage prevention program in place.
- Enforcement provisions and including the ability to impose civil penalties.

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Thank You!

North Dakota Public Service Commission
www.psc.nd.gov
701-328-2400

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Government Agency Oversight of Energy Pipelines in North Dakota

	Intrastate			Interstate	
	Gathering	**Transmission**	**Distribution**	**Gathering**	**Transmission**
CO2					
➢ Facility location	NA	PSC[4]	NA	NA	PSC[4]
• Construction	NA	DOH[1], PHMSA[2]	NA	NA	DOH[1], PHMSA[2]
○ Operation & Safety	NA	PHMSA[2]	NA	NA	PHMSA[2]
❖ Incident Response	NA	DES, DOH, EPA, local responders, PHMSA[2]	NA	NA	DES, DOH, EPA, local responders, PHMSA[2]
Hazardous Liquids					
➢ Facility location	IC[5]	PSC[4]	NA	IC[5]	PSC[4]
• Construction	DOH[1], IC[1]	DOH[1], PHMSA[2], PSC[4]	NA	DOH[1], IC[1]	DOH[1], PHMSA[2], PSC[4]
○ Operation & Safety	?	PHMSA[2]	NA	?	PHMSA[2]
❖ Incident Response	DES, DOH, EPA, local responders	DES, DOH, EPA, local responders, PHMSA[2]	NA	DES, DOH, EPA, local responders	DES, DOH, EPA, local responders, PHMSA[2]
Natural Gas					
➢ Facility location	IC[5]	PSC[4]	Utility, local agency	Federal, IC[5]	FERC
• Construction	DOH[1], IC[1]	DOH[1], IC[1], PSC[3,4]	DOH[1], PSC[3]	DOH[1], IC[1]	DOH[1], FERC[1], PHMSA[3]
○ Operation & Safety	?	PSC[3]	PSC[3]	?	PHMSA[3]
❖ Incident Response	DES, DOH, EPA, local responders	DES, DOH, EPA, local responders, PSC[3]	Local responders, PSC[3]	DES, DOH, EPA, local responders	DES, DOH, EPA, local responders, PHMSA[3]

NOTE: This chart compiled by Patrick Fahn-Public Service Commission staff to the best of his knowledge as of March 3, 2014.

[1] scope of oversight unknown at this time

[2] scope of oversight under 49 CFR Part 195 Pipeline Safety Regulations-Transportation of Hazardous Liquids by Pipeline

[3] scope of oversight under 49 CFR Part 192: Pipeline Safety Regulations- Transportation of Natural and Other Gas by Pipeline-Minimum Federal Safety Standards

[4] scope of oversight under N.D.C.C. ch. 49-22: Energy Conversion and Transmission Facility Siting Act

[5] mapping required by House Bill 1333, 63rd Legislative Assembly of North Dakota

DES:	North Dakota Department of Emergency Services
DOH:	North Dakota Department of Health-Water
EPA:	Environmental Protection Agency
FERC:	Federal Energy Regulatory Commission
IC:	North Dakota Industrial Commission-Department of Mineral Resources-Oil and Gas Division
NA	Not applicable
PHMSA:	U.S. Department of Transportation-Pipeline and Hazardous Materials Safety Administration-Office of Pipeline Safety
PSC:	North Dakota Public Service Commission

Other potential State incident response agencies: County officials, ND Department of Agriculture, ND Department of Human Services, ND Department of Mineral Resources, ND Department of Parks and Recreation, ND Game and Fish Department, ND National Guard, regional public health units, State Fire Marshall. (this information provided by DES).

Public Service Commission
State of North Dakota

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February 28, 2014

Submitted electronically

Air and Radiation Docket and Information Center
U.S. Environmental Protection Agency
Mail Code: 2822T
1200 Pennsylvania Ave., NW
Washington, DC 20460

Subject: **Comments regarding Docket ID No. EPA-HQ-OAR-2013-0495**

EPA Solicitation for Input on Drafting Proposed Rule for Standards of Performance for Greenhouse Gas Emissions at Existing Electric Utility Generating Units

Dear Administrator McCarthy:

As a North Dakota state constitutional agency with statutory authority over electric utilities, coal mine reclamation and abandoned mine lands, the North Dakota Public Service Commission (NDPSC) wishes to go on record in opposition to the U.S. Environmental Protection Agency's (EPA's) proposed rule regarding the Standards of Performance for Greenhouse Gas (GHG) Emissions from New Stationary Sources: Electric Generating Units (EGUs) as currently drafted and published in the Federal Register on January 8, 2014. The NDPSC is also providing these comments in response to the EPA's solicitation for input on drafting a proposed rule regarding Section 111(d) of the Clean Air Act (CAA) concerning the development of guidance and standards of performance for GHG emissions reductions at existing stationary sources.

The NDPSC is concerned about the impact these proposals may have on North Dakota citizens, utility customers, industries and the state's economy. Because the EPA chose not to host a listening session on these rules in North Dakota, the NDPSC hosted a symposium on the potential impacts of these rulemaking efforts in our state. Officials from EPA and the North American Electric Reliability Corporation (NERC) participated along with representatives from North Dakota's electric utilities and coal industry. Attached is a copy of the symposium agenda which provides more detail on the meeting participants and subjects discussed. The symposium presentations heighted our awareness and added to the NDPSC's concerns as we listened throughout the day.

The NDPSC's concerns are:

1. The high costs of these potential rules if they are enacted as proposed.

2. The effects these potential rules will have on grid reliability in this country.

3. The fact that carbon capture and storage (CCS) is costly and not yet economically viable.

4. The proposed rules contain unreasonable timelines and are missing many important elements.

Costs

Many industry members, including those who have testified before us, project that utility customers could see dramatic increases in their rates as a result of these rules being enacted. Utilities have stated that rates could increase 30 to 45 percent depending on the goals and timelines established. If a significant amount of additional coal-fired EGUs are shut down in this country, customers will pay not only the costs of shutting down these EGUs but also the costs of replacing them. Asking customers to pay for plants that have remaining useful life is not a wise use of resources. Furthermore, significantly increasing the costs of power will have a serious impact on the economy as the costs of goods and services will correspondingly need to increase. This will be particularly hard on the millions of jobless people and people living on fixed incomes in our country. The U.S. economy is still weak and many Americans are suffering. Federal regulators need to be extremely methodical in approving new rules that could further weaken the economy.

Reliability

Groups including the Midcontinent Independent System Operator (MISO) and NERC have expressed concern in regards to the effects that shutting down a significant amount of coal-fired EGUs will have on reliability. According to the most recent US Energy Information Administration 2014 outlook, 10.2 GW of coal-fired EGUs were retired in 2012 on top of the 23.4 GWs that have already been retired. It is expected that 39.3 GWs of additional generation will be retired between 2013 and 2023. We will also see 8.3 GWs of petroleum and 15.2 GW of natural gas generation retired during this time period as well. This clearly shows the rules have a much broader impact on the country's electric generation resources.

And, while many believe that renewables will make up the difference, conventional generation is needed as reliability requires EGUs be able to:

- Provide reactive power support which requires spinning resources;
- Increase or decrease output immediately to respond to system frequency changes;
- Limit production as needed for the promotion of reliability; and
- Provide inertial response.

Non-conventional resources do not have the ability to provide these operating characteristics.

Carbon Capture and Storage

While CCS is currently available, it is extremely expensive and challenges the economic viability of any project that incorporates it. In fact, even the White House Office of Management and Budget provided comments in August 2013 stating that: "EPA's assertion of the technical feasibility of carbon capture relies heavily on literature reviews, pilot projects, and commercial facilities yet to operate. We believe this cannot form the basis of a finding that CCS on a commercial scale power plant is adequately demonstrated."

Two of the projects being cited as proof that CCS works are the Kemper project and the SaskPower project. Neither of these projects is yet in service. Both projects are significantly over budget and have received significant federal funding. Experts also state that this technology can't be used everywhere. In order to make it work, generation facilities need nearby storage and an end use for the CO_2 such as industrial processes or enhanced oil recovery. As a result, some emphasize that Utilization needs to be part of CCS to be cost effective. Early indications show that only five to eight states have the means to both capture and utilize CO_2 and it will be another five to ten years before the technology will be commercially available and cost effective. Even with the correct objective of utilization, some experts have estimated that the costs of CCUS will increase electricity costs by at least 30 percent.

The SaskPower and Kemper projects are designed to capture and sequester much of the carbon dioxide produced in the burning of coal and they are excellent examples of the proper way to move forward with CCUS. In the very near future these projects will become operational and we will learn a great deal about what works and what does not work with this technology as well as the final construction costs and the costs to operate and maintain these projects.

Missing Elements

If the EPA is intent on developing new rules for electric generating units (EGUs), these rules must include the following elements:

- Flexibility so that states can follow different paths.
- Limitations on the premature closing of EGUs.
- Recognition of the significant investments in renewables, demand side management and natural gas EGUs already made by utilities.
- More time for new technologies to be developed and proven cost effective.
- Flexibility for utilities to look at system emissions versus plant by plant reductions.

SUMMARY

As discussed above, we have a number of concerns about the EPA rulemaking process for new and existing coal fired EGUs. These include:

1. CCUS technology will significantly increase electricity costs for consumers.

2. Conventional generation such as that from coal fired EGUs is very important for maintaining a reliable, stable and low cost grid. Absent the retention of conventional coal fired EGUs, electricity costs will dramatically increase which will in particular hurt those who can least afford to pay.

3. Utilities must be given credit for early investments and state and regional flexibility must be provided.

4. A total system emission approach that includes consideration for emission reductions from renewable resources and customer load management programs versus a plant by plant approach needs to be considered.

We are nearing a crossroads. Because of our energy resources and unique geology, North Dakota, and America, can be a catalyst in meeting the energy needs of the world and making billions of lives happier and healthier. To be that catalyst we need to allow markets to work and not be micro-managed by regulators. However, the regulatory burden being proposed by the EPA is more likely to lead us to a time where instead of being a catalyst in an energy-rich world, we will be part of a world where electricity is a luxury item.

The North Dakota Public Service Commission appreciates the opportunity to make these comments. If you have any questions, please feel free to let us know.

Sincerely,

Randy Christmann
Commissioner

Brian P. Kalk
Chairman

Julie Fedorchak
Commissioner

CC: carbonpollutioninput@epa.gov
ND Senator Hoeven
ND Senator Heitkamp
ND Representative Cramer
Governor Dalrymple
Attorney General Stenehjem

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PSC Symposium on EPA Carbon Regulation
January 22, 2014
Brynhild Haugland Room
State Capital
Bismarck, ND
9:00 AM to 4:00 PM

Agenda

9:00 AM Welcome and Introductions
- Commissioner Brian P. Kalk
- Commissioner Randy Christmann
- Commissioner Julie Fedorchak

9:15 AM EPA Presentation on Status of Regulations
- Region 8, Regional Administrator Shaun McGrath

10:00 AM Utility Roundtable on Effects of Potential Carbon Regulation
- 10 minute presentation by each utility

11:30 AM Public Comment on Carbon Regulation
- 10 minutes or less depending on time available

Break For Lunch

1:30 PM NERC Presentation on Carbon Regulations & Reliability
- John Moura, NERC's Director of Reliability Assessment

2:15 PM Status Report on Clean Coal Technology Research & Development & Impact of Carbon Regulation on the Lignite Industry
- Executive Director, Energy & Environment Initiative (e2i) Charles D. McConnell

3:00 PM ND Department of Health Presentation on the status of ND Air Quality
- Office of Enforcement Chief Dave Glatt

3:45 PM Closing Remarks by Commissioners