

## **-Info-Public Service Commission**

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**From:** Martinka, Mary A <Mary.A.Martinka@xcelenergy.com>  
**Sent:** Tuesday, October 28, 2014 3:19 PM  
**To:** Nitschke, Darrell D.; -Info-Public Service Commission  
**Subject:** Xcel Energy Responses\_EPA's Proposed "Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units; Proposed Rule"  
**Attachments:** Xcel Energy Responses\_EPA Proposed Rule\_Case No. AD-14-736\_10-28-14.pdf

Dear Mr. Nitschke:

Attached are responses from Northern States Power Company, doing business as Xcel Energy, to the North Dakota Public Service Commission's questions regarding the EPA's proposed "Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units; Proposed Rule," 79 Federal Register 34830 (June 18, 2014).

Please contact Dave Sederquist at 701-241-8632 if you have questions regarding this submission. Thank you.

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414 Nicollet Mall  
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October 28, 2014

Darrell Nitschke  
Executive Secretary  
North Dakota Public Service Commission  
600 East Boulevard Avenue  
Department 408  
Bismarck, ND 58505

—Via Electronic Mail—

Re: Order Directing Response to Questions Regarding EPA Proposed Rules  
(Case No. AD-14-736)

Dear Mr. Nitschke:

The North Dakota Public Service Commission's (NDPSC or Commission) October 8, 2014 Order requests responses from each utility regulated by NDPSC to seven questions related to the EPA's proposed "Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units; Proposed Rule," 79 Federal Register 34830 (June 18, 2014) ("Proposed Rule"). Please find below responses from Northern States Power Company, doing business as Xcel Energy.

a. *Do you agree or disagree with the methodology EPA used to calculate North Dakota's proposed emissions reduction goal?*

We disagree with many aspects of the EPA's methodology to calculate CO<sub>2</sub> emission rate goals. While the methodology was consistent for all states, it does result in disparate goals because of the particularities of each state's electric system.

In brief, that methodology was:

- a. Begin with a 2012 fossil emission rate based on generation and emissions from "affected electric generating units (EGUs)" as defined in the Proposed Rule.
- b. Sequentially apply a series of "building blocks" chosen by EPA as the best system of emission reduction (BSER) as defined in Section 111(a)(1):
  1. Achieve a 6% heat rate improvement at coal-fired units;

2. Increase utilization of natural gas combined cycle (NGCC) units up to 70%, displacing generation from coal and oil/gas steam units;
  3. Preserve nuclear capacity defined as “at risk,” and expand non-hydro renewable generation from 2017-2029;
  4. Expand energy efficiency program savings from 2017-2029.
- c. The cumulative effects of these four building blocks will determine an interim CO<sub>2</sub> emissions goal (to be met on average 2020-2029) and final goal (to be met in 2030 and thereafter) for each state.<sup>1</sup>

Building block #2 had no effect on North Dakota’s goal, because no NGCC units operated in the state in 2012. The same is true of the nuclear component of building block #3. The remaining building blocks resulted in a combined North Dakota interim goal of 1,817 lbs CO<sub>2</sub>/MWh and final goal of 1,783 lbs CO<sub>2</sub>/MWh.

As previously stated, we take issue with several aspects of EPA’s goal-setting methodology. First and foremost from our perspective, the methodology fails to give adequate credit for early action in CO<sub>2</sub> emission reduction, taken prior to 2012. We believe the EPA’s proposed rules should recognize the proactive steps Xcel Energy, other utilities, and states have already taken to reduce both CO<sub>2</sub> emissions and the future costs of GHG regulatory compliance for our customers. For example, EPA could use a 2005 base year rather than 2012; exempt from building block #2 NGCC units specifically built to replace retiring coal units; eliminate the penalty for NGCC generation displaced by renewables; and reward early action in renewable energy through banking provisions.

We are also concerned that EPA’s interim goals require most of the reductions needed by 2030 to actually be achieved by 2020, or shortly thereafter. This reduces compliance flexibility and could increase the overall cost and economic dislocation caused by the Proposed Rule. EPA could increase flexibility by eliminating the interim goals and letting states -- who know their electricity systems far better -- establish the most cost-effective and least-disruptive glide path to the 2030 goal.

We also have criticisms of each of the building blocks:

- Block 1 sets an unrealistic target for coal plant heat rate improvement.
- Block 2 establishes a 70% redispatch target for each state without assessing whether states can achieve the goal.

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<sup>1</sup> Technical Support Document: Goal Computation, at <http://www2.epa.gov/carbon-pollution-standards/clean-power-plan-proposed-rule-technical-documents>.

- Block 3 sets renewable targets that effectively punish states that have led the way to renewable energy development.<sup>2</sup>
- Block 4 requires aggressive efficiency programs that push the limits of efficiency programs for each state.

In addition, EPA has not adequately addressed interactions between the four building blocks that might make total reductions less than additive. EPA has simply considered each building block individually and summed the results. In reality, increased utilization of NGCC units in building block #2 and increased renewable generation in building block #3 will result in reduced utilization of coal units, which is likely to degrade their performance -- causing them to operate at a higher heat rate and eroding gains achieved in building block #1. Adding significant renewable generation in building block #3 will push down the capacity factors of NGCC units, eroding the increase in their capacity factor assumed in building block #2.

In summary, while EPA's goal-setting methodology is not different for North Dakota than for any other state, we do see many flaws in this methodology.<sup>3</sup> By insufficiently crediting early CO<sub>2</sub> reductions, the Proposed Rule will increase cost of compliance in states where Xcel Energy operates affected EGUs, and these increased costs are likely to affect our customers in North Dakota.

*b. Do you agree or disagree that the statewide "goal" established by EPA for North Dakota is really an enforceable requirement, if finalized?*

Under Section 111(d) of the Clean Air Act, EPA is required to establish a "process" similar to the state implementation plan process of Section 110 to set emission limits for Section 111(d) sources. EPA then evaluates the plans prepared by states to determine if they are "satisfactory." As we understand EPA's interpretation of its authority under Section 111(d), EPA has set numeric goals for states in the Clean Power Plan and will use those goals as a basis for determining whether the plan is "satisfactory." Presumably, EPA believes it has authority to disapprove a plan that does not achieve the goals and implement its own federal plan.

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<sup>2</sup> We oppose EPA's "Alternative RE Approach" for building block #3, which is based on EPA's assessment of technical and economic potential. In our estimation, this alternate approach would make North Dakota's 2030 goal more stringent by 376 lbs CO<sub>2</sub>/MWh.

<sup>3</sup> At the same time, despite the flaws in the rule, the Proposed Rule would establish a less aggressive emission reduction target for North Dakota than for any other state.

- c. *Do you agree or disagree EPA's Proposed Rule is not consistent with Section 111(d) of the federal Clean Air Act and North Dakota statutes because it would take away the state's primary authority for setting the emission standard?*

Section 111(d) gives the states the principle authority to establish standards of performance for existing Section 111(d) sources in their states. In doing so, states determine the best system of emission reductions for the covered sources by considering the unique, state-specific circumstances in light of the factors in the statute. Those factors include cost, energy requirements, and the remaining useful life of the source. Under Section 111(d), and in contrast to other Clean Air Act programs, the state has the duty of determining the appropriate emission limit for the source. EPA's only role is to evaluate whether the state's plan is satisfactory. To the extent that the Proposed Rule is inconsistent with these requirements, either in design or implementation, it would be inconsistent with Section 111(d).

- d. *Do you agree or disagree that the Proposed Rule conflicts with the Commission's statutorily-defined rate-setting and resource planning objectives?*

The goals of rate setting are to ensure that North Dakota customers pay just and reasonable rates for safe and reliable service, while providing the company with a reasonable opportunity to recover its investments and operating costs and earn a fair rate of return. Resource planning goals are tied to the rate setting goals in that the costs related to resource additions are recovered through rates. Through the rate case process and the advanced determination of prudence statute, the Commission determines whether resource additions are prudent. The new EPA standards are not unlike other existing federal standards that currently impact the Company's resource mix. As such, the Proposed Rules are not in conflict with the current ratemaking and resource planning objectives, but rather would be another factor that the Company will need to consider when planning resources and requesting consequent rate recovery.

- e. *Do you agree or disagree that the Proposed Rule would override the resource planning authority and discretion of the Commission?*

The Company plans and builds its resource mix such that it complies with all state and federal regulations. The Proposed Rules will presumably establish additional requirements that will impact how we plan our system. However, the Commission's authority to evaluate our requested resource additions and rate recovery, based on the prudent investment standard, is retained.

In building blocks 3 and 4 of the Proposed Rule, EPA in part bases the emission rate goals for states on the regional average of state renewable portfolio standards and a targeted level of customer energy efficiency. By doing so, the Agency threatens to usurp the authority of the state of North Dakota and other states to use their traditional resource planning processes to evaluate and establish their own renewable energy and energy efficiency programs. (This would particularly be the case if EPA decided to use the alternative technical potential approach to establish the block 3 contribution to the goal.) While the state need not meet the specific renewable targets in the Proposed Rule provided it achieves the emission targets, EPA may use the rule to reject North Dakota's 111(d) plan and impose a federal plan that would mandate certain levels of renewable energy, energy efficiency, or environmental redispach without consideration for other factors relevant to resource planning. In that circumstance, EPA would improperly substitute its judgment for that of the state.

*f. Do you agree or disagree that the Proposed Rule raises concerns about electric reliability in North Dakota?*

We have not evaluated the electric reliability impacts of the Proposed Rule but generally expect that we could maintain our NSP system reliability under this rule. This question is perhaps better directed to the Midcontinent Independent System Operator (MISO), which has conducted its own evaluation of the Proposed Rule. MISO finds that the rule could cause retirement of an additional 14 GW of coal across the MISO footprint. However, MISO's models are designed to maintain adequate reserve margins in all modeled scenarios. We agree that the reliability impacts of the Proposed Rule deserve further study.

As noted above, we have urged EPA in the Final Rule not to impose binding interim (2020) targets on the states, but to defer to states to set the least disruptive and most cost-effective "glide path" to the 2030 goal. We believe such a change, if adopted by EPA, could help ease reliability concerns.


*g. Do you agree or disagree that the Proposed Rule has a significant impact on North Dakota's ability to continue to use lignite and other coals as a low cost electricity generation option?*

We believe that in general the Proposed Rule, along with other current and forthcoming environmental regulations, adds to the pressure to discontinue operation of coal-fired power plants. The Proposed Rule does provide certain compliance flexibility mechanisms that could make it possible to achieve the lb CO<sub>2</sub>/MWh

statewide goals set by EPA, while continuing to use coal as a low-cost electricity generation option. We do not have a specific opinion on lignite or other coals, as Xcel Energy does not operate any lignite or other coal-fired power plants in North Dakota.

Thank you again for the opportunity to provide responses. We look forward to working with the NDPSC as the state formulates its strategy to respond to the 111(d) rule.

Sincerely,

A handwritten signature in black ink, appearing to read "Jack Ihle". The signature is written in a cursive style with a large initial "J" and "I".

JACK IHLE  
DIRECTOR, ENVIRONMENTAL POLICY  
XCEL ENERGY