

May 9, 2014

—Via Electronic Filing—

Bill Grant
Deputy Commissioner of Energy and Telecommunications
Minnesota Department Commerce
85 7th Place East, Suite 500
St. Paul, MN 55101

J. David Thornton Assistant Commissioner Minnesota Pollution Control Agency 520 Lafayette Road N St. Paul, MN 55155-4194

RE: COMMENTS

INQUIRY INTO ENVIRONMENTAL AND SOCIOECONOMIC COSTS UNDER MINN.

STAT. § 216B.2422, SUBD. 3

DOCKET NO. E999/CI-00-1636

Dear Messrs. Grant and Thornton:

Northern States Power Company, doing business as Xcel Energy, submits to the Minnesota Department of Commerce and the Minnesota Pollution Control Agency these Comments regarding the scope and conduct of the proceeding that will examine externality values for various criteria pollutants and greenhouse gases. We submit these Comments in follow-up to our participation in the April 24, 2014 stakeholder meeting, and in response to the Agencies' April 17, 2014 DISCUSSION DOCUMENT requesting comments to be submitted by May 9, 2014.

We believe the scope of the proceeding to update the externalities values should allow for development of a broad and informed record, upon which the Commission will make decisions. We agree with the Commission that because of the significance and complexity of the issues involved, the investigation will likely require more than twelve months to resolve. We further believe the Commission's guidance in the last proceeding that examined the externalities values is instructive for the current proceeding.¹

¹ See January 3, 1997 ORDER ESTABLISHING ENVIRONMENTAL COST VALUES (Docket No. E999/CI-93-583).

More specifically, we believe the scope of the proceeding should be designed to:

- Quantify, to the extent practicable, the externality costs attributable to those pollutants presented in Clean Energy Organizations' motion. We do not believe the examination of impacts associated with climate change needs to include greenhouse gases other than carbon dioxide (CO₂).
- Establish a range of values to appropriately acknowledge the uncertainty inherent in trying to quantify environmental costs;
- Assess criteria pollutants and CO₂separately, examining the local/regional effects of criteria pollutants using a damage cost approach focused primarily on Minnesota receptors and CO₂reflecting the nature of the climate change issue and the current state of science;
- Determine the extent to which costs may be internalized as evolving and increasing air quality requirements have been imposed; and
- Concentrate on the impacts that are easiest to quantify, but do not substitute ease for credibility and specificity.

A. Background

In its February 10, 2014 ORDER REOPENING INVESTIGATION AND CONVENING STAKEHOLDER GROUP TO PROVIDE RECOMMENDATIONS FOR CONTESTED CASE PROCEEDING, the Minnesota Public Utilities Commission requested the Department and Pollution Control Agency to convene a stakeholder group to address the scope of the investigation into environmental and socioeconomic costs under Minn. Stat. § 216B.2422, subd. 3, whether to retain an expert under Minn. Stat. § 216B.62, subd. 8, and the possible role of an expert, should one be retained. The Commission also requested the Agencies to report the stakeholder group's conclusions to the Commission within four months from the date of the Order.

The Agencies hosted the stakeholder meeting on April 24, 2014, and requested comments regarding their April 17, 2014 DISCUSSION DOCUMENT be submitted by May 9, 2014.

B. Scope of the Proceeding

The Commission's guidance in the last proceeding that established externalities values is instructive for the current proceeding. In that proceeding, the Commission (and ALJ) relied on Minn. R. 1400.7300, subp. 5, which provides the burden of proof to be used in administrative hearings. Essentially, parties have the burden (and opportunity) of showing by a preponderance of the evidence, that it is practicable to

adopt the values they propose.² Similarly, parties opposed to the adoption of any particular proposed value must counter the proposer's evidence with a greater weight of evidence demonstrating the incorrectness of or impracticability of adopting the proposed value. The contested case process is designed to allow a thorough record to be developed.

Thus, the broad parameters we outline above would appropriately allow parties to present their evidence that will form the record on which the ALJ bases its recommendations – and ultimately, the Commission bases its decisions.

1. Pollutants Within the Scope of the Proceeding

We believe the Petitioner's Motion has properly identified the pollutants that merit a full examination of the current state of science applicable to establishing estimates of externality impacts and that may have a significant impact on resource planning analysis.

However, we do not believe it is necessary to examine greenhouse gases other than CO_2 in this proceeding. It is correct that non- CO_2 greenhouse gases such as methane (CH_4) and nitrous oxide (N_2O) are emitted in small quantities from power plants. However, we believe that when the Commission considers the magnitude of these emissions relative to CO_2 from the power sector, the Commission will conclude that these emissions do not warrant expanding the investigation beyond carbon dioxide.

Xcel Energy has found – and EPA's Emissions & Generation Resource Integrated Database (eGRID) confirms – that power plant emissions of N₂O and CH₄ on a per megawatt hour (MWh) basis, are approximately six orders of magnitude smaller than emissions of CO₂.³ Even after accounting for the higher Global Warming Potential (GWP) of these gases, their CO₂ equivalent emissions are approximately one half of one percent of the CO₂ emissions.

Accordingly, we conclude it is reasonable for the Commission to restrict the scope of the contested case proceeding to the examination of externalities associated with sulfur dioxide (SO_2), oxides of nitrogen (NO_X), fine particulate matter smaller than 2.5 microns ($PM_{2.5}$), and CO_2 .

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² See pages 13-14 of the January 3, 1997 Order in which the Commission relied on Minn. R. 1400.78300, subp. 5 as the standard for the burden of proof.

³ See http://epa.gov/cleanenergy/energy-resources/egrid/index.html

2. Criteria Pollutants

We believe the Commission's January 3, 1997 Order that established externalities values for resource planning purposes, as modified by the Commission's July 2, 1997 Order, continues to provide valuable and instructive guidance with regard to the most reasonable approach to the examination of externality values associated with pollutants other than greenhouse gases. After an extensive record was developed, the Commission found that a damage cost approach primarily focused on Minnesota, its populations, and resources was the most reasonable method to fulfill its responsibility under Minn. Stat. § 216B.2422, subd. 3(a) to quantify and establish a range of environmental costs to the extent practicable.

We believe the initial record was strong and to date nothing new has been presented to justify moving away from the Minnesota focused damage cost approach. The Commission could restrict the scope of the proceeding to update the externalities analysis using that same approach. However we do not object should the Commission wish to keep the scope broader to provide an opportunity for participants to offer alternatives.

In the Agencies discussion document, three different approaches for the examination of externalities using the damage cost approach were outlined. We are not prepared to offer much comment on which of the three approaches should be used to update criteria pollutant externalities. However, of the three scenarios proposed, we believe that to keep with the nature of the externality values already in use, it is vital to rely upon Scenario A or Scenario B – or a combination thereof; the rigor of the values that would be determined utilizing Scenario C would likely not provide for values comparable to those developed in the first proceeding.

The spatial resolution of the ambient air quality model used, assumptions made about how to estimate changes in emissions and their affect on ambient concentrations, the review and application of impacts from the literature, and converting these impacts into cost estimates are all important factors in the process. We learned in the first proceeding that the selection of applicable damage research from the literature is not as straightforward as some believe, and that converting estimates of damages and incremental ambient air quality changes into unit emission costs presents another whole layer of complexity. We believe participants should have the opportunity to make their own judgments concerning these and other analysis issues. Through the development of the record in the contested case proceeding, the strengths and shortcomings of the various approaches offered can be developed, which in turn will better inform the Commission.

The first two scenarios addressing the criteria pollutants differ primarily in the spatial resolution of the ambient air quality model to be used. At this time we are investigating some of the trade offs associated with their use and have not concluded whether there is a significant impact on the analysis. However, of the three scenarios presented, it is our understanding that the third would represent a significant departure from the approach used in the initial proceeding and would be least favored.

3. Carbon Dioxide

We observe the Agencies have separated the approach to the examination of externality values associated with carbon dioxide from the other criteria pollutants. We concur that this is appropriate, since CO2 concentrations are relatively uniform globally, and the spatial scope of the climate change issue is global rather than regional or local.⁴ The climate change issue also has a very different temporal dimension from criteria pollutants, as reflected in the federal government's social cost of carbon calculation and other research. CO2 emission changes have less of an immediate impact on our economy and environment, but may cause impacts over decades and centuries into the future.

The Agencies' three process scenarios or approaches for CO2 externality values in the discussion document are focused on whether a review of the research regarding impacts of climate change should be conducted, or the Commission should instead rely on the federal Social Cost of Carbon (SCC). We believe it is premature to limit the scope of the investigation to the SCC (Scenarios E and F). Specifically, at this time, we believe the SCC presents significant procedural and methodological challenges (which we discuss in our comments in response to the Office of Management and Budget recent request for comments) that should be considered before trying to adapt the values to resource planning.⁵

Rather, we believe Scenario D, which allows for the assessment of a broad range of alternative approaches that relies on a full examination of the current state of science to develop the record – and which would still allow for consideration of the SCC – is the appropriate approach.

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⁴ However, this does not mean the Commission cannot consider an approach to evaluate climate change damages specific to Minnesota or the Upper Midwest. We note that the National Climate Assessment, released this week by the US Global Change Research Program examines how climate change impacts differ for 10 different U.S. regions. *See* http://nca2014.globalchange.gov/

⁵ See http://www.regulations.gov/#ldocumentDetail;D=OMB-2013-0007-0123

We believe the Commission would be best served by considering as much information as possible about the current state of climate change research, the various approaches to estimating its impacts and their strengths and weaknesses, and possible methods for evaluating climate change impacts on Minnesota. The more context within which to place the federal social cost of carbon or some other proposal, the better informed the Commission's judgments will be.

C. Response to Specific Discussion Document Questions

In this section, we respond to the specific questions posed in the DISCUSSION DOCUMENT FOR THE 4/24/14 STAKEHOLDER MEETING RELATION TO DOCKET NO. E999/CI-00-1636 prepared by Department of Commerce and Minnesota Pollution Control Agency (the Agencies).

1. Proposed Criteria for Evaluation of the Proposed Scenarios

The Agencies proposed the following criteria to be used to evaluate process scenarios they also proposed:

- *Cost*: total cost to complete the analysis, evaluated relative to other options.
- *Time to completion*: estimated time from Commission decision of scope to pursue completion of analysis.
- *Complexity*: relative complexity of the analytical methods involved in the scenario.
- *Credibility*: relative degree to which analytical models represent the complexity of the systems being modeled and thus the relative confidence in the accuracy of the estimates they produce.
- *Specificity to Minnesota*: degree to which specific conditions of Minnesota are incorporated into the modeling.
- *Need for outside Contractor*: likely need for an outside contractor to conduct the analysis.
- *Update-ability*: relative ease to which externality value estimates could be updated in the future.

We believe the Commission needs to consider and balance all seven of the criteria. Establishing a range of values associated with emissions from power generation to be used in resource planning decisions is a complex matter, and we should not settle for a less rigorous analysis than that which was used to establish the externality values we have today. As such, we expect that parties will have a need to rely on experts to

ensure that the record reflects the best available science to ensure it provides the Commission a credible record from which to base decisions.

In order to do so, we believe that the Agencies should place an emphasis on credibility and specificity, and not trade one or a combination of the criteria at its expense. Therefore, we believe the Commission should direct the ALJ to examine issues as we have outlined above.

2. Potential Process Scenarios

The Agencies proposed three scenarios for evaluating criteria pollutants and three scenarios for evaluating CO₂. As discussed earlier we do not view these scenarios as process alternatives per se. Rather they appear to have more to do with alternative approaches to formulation of the Agencies case(s) in a contested case proceeding.

3. Expert Role

We believe the complexities associated with developing a full and complete record in this proceeding will require expert analysis and testimony. We therefore believe all parties should have the opportunity to engage the expertise they believe is necessary to present their best case and evidence, and that the testimony of each should be weighed upon its own merits.

CONCLUSION

Xcel Energy appreciates the opportunity to submit these Comments, and believes the scope of the proceeding should be designed to:

- Quantify, to the extent practicable, the externality costs attributable to those pollutants presented in Clean Energy Organizations' motion. We do not believe the examination of impacts associated with climate change needs to include greenhouse gases other than carbon dioxide (CO₂).
- Establish a range of values to appropriately acknowledge the uncertainty inherent in trying to quantify environmental costs;
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- Determine the extent to which costs may be internalized as evolving and increasing air quality requirements have been imposed; and

• Concentrate on the impacts that are easiest to quantify, but do not substitute ease for credibility and specificity.

We have electronically filed this document with the Minnesota Public Utilities Commission, and copies have been served on the parties on the attached service list. Please contact me at james.r.alders@xcelenergy.com or (612) 330-6732 if you have any questions regarding this filing.

Sincerely,

/s/

JAMES R. ALDERS
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Enclosures c: Service List

CERTIFICATE OF SERVICE

I, Theresa Sarafolean, hereby certify that I have this day served copies or summaries of the foregoing document on the attached list(s) of persons.

xx by depositing a true and correct copy thereof, properly enveloped with postage paid in the United States Mail at Minneapolis, Minnesota

xx electronic filing

Docket No. E999/CI-00-1636

Dated this 9th day of May 2014

/s/

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