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May 1, 2017

VIA E-FILING

Mr. Daniel P. Wolf
Executive Secretary
Minnesota Public Utilities Commission
121 Seventh Place East, Suite 350
Saint Paul, MN 55101-2147

Re: In the Matter of the Petition of Xcel Energy for Approval of the Acquisition of Wind Energy

MPUC Docket No. E-002/M-16-777

Dear Mr. Wolf:

On behalf of the Minnesota Chamber of Commerce, enclosed please Comments regarding the above-referenced matter. I am filing these documents with the eDocket system and serving it on the service list of record.

Sincerely,

s/ R. Cameron Winton

CERTIFICATE OF SERVICE

I, R. Cameron Winton, hereby certify that I have this day, served copies of the preceding cover letter and enclosed "Minnesota Chamber of Commerce Comments" on the attached list of persons as specified in the attached service list.

MPUC Docket No. E-002/M-16-777

s/R. Cameron Winton

Minnesota Chamber of Commerce

May 1, 2017

**STATE OF MINNESOTA
BEFORE THE PUBLIC UTILITIES COMMISSION**

**In the Matter of the Petition of Xcel Energy for Approval
of the Acquisition of Wind Energy**

Docket No. E-002/M-16-777

MINNESOTA CHAMBER OF COMMERCE COMMENTS

I. Introduction

The Minnesota Chamber of Commerce (“Chamber” or “MCC”) hereby provides these comments in response to Xcel Energy’s (“Xcel” or “Company”) petition to acquire 1,550 MW of wind generation.

The Chamber represents approximately 2,300 business locations throughout the state of Minnesota. As the voice of Minnesota businesses on statewide policy issues, the Chamber’s main goal is to make Minnesota’s business environment competitive relative to other states and nations. Energy is a critical component to a competitive and successful business environment. Therefore, a focal point of the Chamber’s policy is ensuring Minnesota has competitively priced, reliable, and environmentally sound energy rates. The Chamber membership includes many small and large businesses that are served by Xcel Energy. These members have a keen interest in the outcome of the proceeding since cost recovery of Xcel’s wind portfolio will be borne by these businesses.

The Company’s Supplemental petition filed on March 15, 2017 seeks approval for a wind generation portfolio of 1,550 MW. Xcel indicates that the portfolio was chosen based on a rigorous competitive bidding process. The Chamber applauds Xcel’s process and urges the Commission to support it for this and subsequent dockets. The portfolio consists of 400 MW of Purchased Power Agreements and 1,150 MW of owned generation. In seeking approval of this

portfolio, Xcel notes that wind generation is at a historically low price and that near-term wind additions present a prudent opportunity to achieve lower carbon emissions while driving down overall system costs. According to the petition, several bids received by the Company were below a levelized cost of energy of \$22/MWh.¹ Generally speaking, the wind generation market has matured over time and improvements in technology coupled with the production tax credits have resulted in prices that are cost competitive for such generation located in wind rich zones in the Midwest.

The Chamber appreciates Xcel's efforts in capitalizing on the low cost trend of wind generation and submitting a wind generation portfolio that appears to be cost effective and competitive for the long term. Indeed, the Company indicates that "the wind portfolio will decrease customer bills beginning in 2021 and save them an average of \$127 million per year through the life of the projects."² The Chamber's members served by Xcel welcome efforts to provide rate relief especially given that commercial and industrial ("C&I") rates have become less competitive with certain rates in neighboring states over time. The Chamber appreciates that Xcel recognizes and has been working with customers to reverse this trend. This docket is one such step.

This being said, the Chamber wants to point some parts of Xcel's proposal that deserve further discussion and consideration by parties and the Commission. In addition to recognizing the significant benefits to ratepayers of zero-carbon power at a levelized price of less than \$22/MWh, the Chamber encourages the Commission to fully consider issues arising from the integration of the proposed 1,550 MW of wind generation in a relatively short timeframe. Specifically, the Chamber encourages the Commission to consider any potential impacts to

¹ See p.6, Supplemental Petition, March 15, 2017

² *Id.*, p.2.

projected cost savings arising from (a) curtailment risks in some areas; (b) the diminishing value of fuel consumption during certain times of the day and certain seasons of the year; and (c) foregone infra-marginal revenues associated with baseload resources.

Thus, the Chamber encourages the Commission to consider the appropriate number of megawatts of wind generation that it should approve now in order to ensure that customers will maximize savings. In this regard, the Commission may want to carefully balance the need to capitalize on expiring production tax credits and attractive wind prices on the one hand with factors or drivers that will erode these savings on the other. Further, if Xcel's self-build portfolio is approved, in addition to costs caps associated with the initial capital investment associated with the wind generation and transmission upgrades, the Commission also may want to consider imposing certain conditions associated with on-going O&M costs and production tax credits (the value of which depends upon the wind farms meeting their projected capacity factors). Requiring such conditions will help to maintain a level playing field between choosing a purchase power agreement ("PPA") versus an owned (self-build or build-own-transfer) alternative, which is appropriate given that the self-build portfolio was chosen on the basis of a competitive bidding process.

II. Detailed Comments

A. Approval of the Wind Portfolio

The Chamber encourages the Commission to consider the following issues as it considers the Company's request:

1. **Impacts of Adding 1,550 MW of Wind Generation.** In Xcel's Integrated Resource Plan proceeding, the Commission found it reasonable for the Company to acquire at least 1,000

MW of wind by 2019.³ The Commission's order also stated that the acquisition of greater than 1,000 MW may be approved upon submission of evidence such as price, bidder qualifications, rate impact, transmission availability, and location. In this regard, the Chamber believes it is necessary for the Commission to fully ascertain the impacts of adding the proposed wind portfolio to the Company's system.

a. Potential for Significant Curtailments in the Near Term. Based on a review of the Supplemental filing submitted on March 15, 2017, it is MCC's understanding that several projects are at risk of higher curtailment in the near term until the North Madison - Cardinal - Spring Green - Dubuque area 345 kV Line Multi Value Project is expected to be placed in service in 2023. Affected projects include Blazing Star I, Blazing Star II and Crowned Ridge. Aside from Xcel, other entities also have wind generation in the MISO queue in that area. While the degree of curtailment will largely be a function of the amount of wind generation that actually is built, other utilities have similar incentives as Xcel to build this generation and therefore, the threat of significant curtailments is material. Further, there is also the possibility that the North Madison - Cardinal - Spring Green - Dubuque area 345 kV Line Multi Value Project may not be in service by its expected date. Xcel's analysis assumes some level of curtailment throughout the 25-year period based on recent historical experience. However, this historical experience may not be representative of a future situation especially in the near term and given the high level of interest by other entities demonstrated in the MISO interconnection queue. Therefore, the Commission may want to request a more detailed quantitative analysis of curtailment risk and related costs for the first five to seven years. This analysis should include and not be limited to identifying:

³ See Commission Order in Docket 15-21 issued on January 11, 2017, Order point #3.

- The degree of curtailment associated with varying levels of MW of wind generation that could be placed into service in and around the affected area in the MISO queue (e.g., 25%, 50%, 75% and 100% of total wind in the MISO queue placed in service).
- The impact of curtailment costs and lower capacity factors (which result in lower production tax credits) on the revenue requirement.

b. Impact of Generation Exceeding Native Load Requirements in the Near Term.

According to Xcel's forecast in the IRP proceeding, the utility is expected to be long on capacity (and energy) at least through 2023.⁴ Further, in response to MPUC Staff Request No. 6, the Company indicates that it will meet the renewable energy standard requirements, including the 24% wind generation requirement through 2027, without additional resources. Consequently, the Commission should evaluate the proposed wind portfolio in large part through the lens of whether it reduces energy costs for the next 5-7 years.

Xcel's peak demand is ~9000 MW and with a load factor of 55%, its average demand is ~ 5000 MW. Projected load growth is relatively flat. If all 1,550 MW were acquired, total wind generation would be 4,150 MW. The wind generation along with must-run minimum generation requirements of baseload plants (nuclear and coal) would most likely approximate the average load. As a result:

- There could be a significant number of hours when generation exceeds load during off peak seasons. Also, there could be a significant number of off peak periods when the market prices are low and there are diminishing returns to adding more wind, especially when the neighboring states would likely be experiencing the same situation;

⁴ See Xcel's updated filing submitted in January 2016 in IRP docket 15-21, page 12, Table 1.

- The influx of an additional 1,550 MW of Xcel wind portfolio along with other wind generation from MISO's queue being added to the system could drive down market prices and cause further economic curtailments. As noted in Xcel's response to MPUC Request No. 7, in part:

There is the potential for significantly more near term wind additions in Minnesota and adjacent states based on interconnection requests reported by MISO. The required transmission upgrades for these wind projects may not be in-service by the time the projects begin producing energy. Some of these projects may not go forward, however, if the interconnection and transmission upgrades costs required by MISO are too high for the project to be economic. *Depending on how many of these projects proceed, there may be a negative effect on LMP⁵ pricing in the MISO regional energy market that could potentially impact real-time wind generation on the NSP System and result in greater wind curtailments [emphasis added].*

Forecasted market prices are kept static in the analysis and therefore, the negative effect on LMPs (i.e., reducing the LMPs) is not accounted for. Ignoring this impact has at least two major implications, both of which would result in overstating benefits:

- First, the value of market sales is over-predicted, which therefore over-predicts the benefits of acquiring more wind generation;⁶ and
- Second, the reduction in infra-marginal revenues resulting from increasing wind generation is not reflected.⁷

Table 17 of Xcel's Supplemental Filing shows estimated gross and net (i.e., accounting for benefits) revenue requirement impacts for the period 2018-2022. On average, the

⁵ LMP stands for Locational Marginal Prices.

⁶ See page 53 of Xcel's Supplemental Filing. Although the Company accounted for curtailment costs in Table 17, as discussed in a previous section, these costs could be underestimated and need to be vetted further.

⁷ Infra marginal revenue is the revenue a resource receives when the market clearing price exceeds its costs. As a result of wind proliferation, market prices are reduced and since wind displaces baseload generation in many hours, the marginal price reduction results in baseload generation receiving lesser revenues with the wind penetration than without the wind penetration. For example, Exelon threatened to shut down its nuclear plants because of lower market prices as a result of low natural gas costs and wind generation.

estimated benefits associated with production cost savings and market purchases are similar in amounts to estimated benefits associated with market sales: \$60.5 million for adjusted production cost savings and MISO purchases versus \$55 million for market sales. Thus, half the benefit is attributable to market sales and this is why it is important to more thoroughly examine the negative impact of more wind generation on market prices. The Commission may wish to encourage the Company to utilize PROMOD software to estimate the reduction in LMPs due to the proposed wind portfolio and in turn determine any impacts on the market sales revenue estimate. Similarly, the Commission may wish to encourage the Company to provide a quantitative assessment of the loss in infra marginal revenues as a result of the proposed wind portfolio.

c. Impact on Other Resource Acquisition. Xcel estimates avoided energy costs in evaluating the cost effectiveness of CIP programs and to calculate the related financial incentive for the CIP initiatives. For the triennial period 2017-2019, Xcel reduced its avoided energy cost estimates from the previous triennial period and also estimated that on average, from 2017-2019, wind was on the margin roughly 4% of the time and the avoided cost was 0 for these hours.⁸ Depending on the amount of wind acquisition MWs the Commission approves in this proceeding, the numbers of hours that wind is on the margin will increase from the current estimate. It would be beneficial for Xcel to update its avoided energy cost calculations for CIP programs for future years accordingly to calculate cost effectiveness as well as the financial incentive. The impact of the wind portfolio on other future supply side resource acquisitions can be addressed in the next resource plan proceeding. However, it would be beneficial if Xcel explained clearly in Reply Comments as to whether the

⁸ See Department's Comments in docket 08-133 submitted on March 17, 2016, p. 4.

proposed wind portfolio reduces the need for additional resources that have been authorized by the Commission in Xcel's most recent IRP proceeding.

In summary, with respect to the **approval of the entire wind portfolio**, the Chamber encourages the Commission to evaluate (a) a comprehensive assessment of curtailment risk due to transmission issues, (b) a revised estimate of benefits related to market sales, especially in the near term when generation will exceed load more frequently during off peak seasons and periods, (c) a quantifiable analysis of loss in infra marginal revenues and (d) the impact that the wind portfolio has on reducing the need for any additional resources that were recently authorized by the Commission in the Company's most recent IRP proceeding.

B. Cost Recovery Considerations

1. **Resource Treatment Framework ("RTF").** While the Chamber is not participating in the RTF proceeding, it is aware that several options related to the possibility of a jurisdictional split with North Dakota are being addressed in a separate proceeding. Since this issue is being investigated in another proceeding, the Commission may find it prudent to not prejudge or predetermine the treatment of costs that may or may not be recovered from other jurisdictions at the present time and in this proceeding.
2. **Cost Caps Associated with Capital Costs.** Xcel proposes that a project cost cap be applied to the 750MW of wind generation that it proposes to self-build as a whole. The remaining projects are either Built-Own-Transfer ("BOT) or Power Purchase Agreement ("PPA") transactions. Xcel proposes a symmetrical cost cap consisting of the total costs of the self-build portfolio. If there are cost overruns, Xcel will bear these costs. If actual

costs are lower than the cost caps, Xcel will retain the savings. Xcel indicates that the symmetrical treatment is consistent with the Commission's decision regarding Black Dog 6 in docket 12-1240, where the Company resource was selected as part of a competitive bidding process.

The Chamber appreciates Xcel's efforts in presenting a self-build portfolio that the Company demonstrates was chosen in conjunction with a competitive bidding process. By managing a portfolio of projects, the Company is likely able to achieve efficiency gains thereby resulting in a competitive proposal when compared to other bidders. By imposing a cost cap associated with total capital costs of transmission and wind generation and proposing a symmetrical treatment, Xcel is taking on same the risk or reward provisions as other competitive developers. The Chamber appreciates that the Company is willing to protect ratepayers against initial capital cost overruns.

At the same time, to be fair and equitable and on a level playing field with PPA developers who undertake additional risks that protect ratepayers, the Commission may want to consider imposing similar conditions on owned projects such as cost containment of O&M and on-going capital costs as well as capacity factor accountability. Incorporating such conditions will not only level the playing field with PPA developers but also result in fair and equitable treatment of winning on the basis of a competitive bidding process, which in turn, is fair to and protects ratepayers.

- **Cost Containment of O&M and On-Going Capital Costs.** Since the Company has gained significant experience with wind projects, it may be reasonable to expect that it has a solid ability to project O&M and ongoing capital costs, especially since most of the costs are associated with insurance and maintenance agreements, which typically

have built in escalation factors. Since the specific self-build projects were chosen over other competitively priced proposals, the Commission may want to consider cost caps for on-going O&M and capital costs based on the Company projections provided in this docket and used to calculate the projected revenue requirements, levelized cost of energy estimates and related savings.

- **Capacity Factor Accountability.** Aside from advancements in wind technology, one of the biggest reasons that wind projects are so cost competitive is because of the production tax credit (“PTC”), which is \$23/MWh for every MWh of output. To the extent that the wind generation does not perform as projected, that shortfall significantly impacts the economics of the project. For example, Table 12 in the Supplemental petition indicates that a 5% reduction in capacity factors reduces the savings by \$335 million or 28% of the total savings on a Present Value of Revenue Requirements (“PVRR”) basis for the owned projects. PPA prices are provided on a \$/MWh levelized basis and the PTCs are accounted for in this levelized price. Thus, the PPA developers take the risk of assuming a capacity factor in calculating and submitting their levelized price. For owned projects, there should be similar accountability. One way to achieve this accountability is require that in calculating the revenue requirements in the renewable rider, the Company assume the same PTC assumptions that were included in the petition to justify the economics of the project and regardless of project performance.⁹ Once again, since this project is being won

⁹ We note that the Company engaged AWS Truepower, LLC to evaluate and provide recommendations regarding the capacity factors of the BOT (p.13 of Supplemental petition) and self-build projects. Xcel adjusted the capacity factors based on AWS recommendations (Table 3, p.20).

based on competitive bidding, it would be reasonable for the Commission to hold the utility accountable to its assumptions.

Customers are not well served if the Commission imposes different prudence standards on PPA developers compared to utilities and vice versa. They both need to meet the same high standards. Xcel has incorporated stringent contract provisions with established developers such as Next Era and Allete Clean Energy to help ensure prudence. Similarly, the Chamber acknowledges that the Commission will hold Xcel to a standard of prudence on an ongoing basis. The Chamber's proposed approach for O&M and capacity factor is a means to accomplish just and reasonable rates and therefore will help to assure that these projects will be considered prudent.

3. **Mitigate Rate Impacts for Ratepayers.** The traditional regulatory framework consists of front loading the costs associated with a project. Since all of the owned projects are expected to be in service in the 2019-2020 time frame, the revenue requirements will peak around the same time period. As such, consideration should be given to the revenue requirement impacts on consumers. In this regard, the Chamber encourages the Commission to consider levelizing the revenue requirements for the first five years. This is approximately the time frame for when the capital costs related revenue requirements peak out and depreciation impacts kick in. Such an approach will also help in better matching of recovering costs from the same set of customers that will receive the benefits and maintain intergenerational equity.

In summary, with respect to **cost recovery**, the Chamber encourages the Commission to consider the following:

- Delay or not predetermine the treatment of costs that may or may not be recovered from other jurisdictions at the present time and in this proceeding;
- In order to ensure fair and equitable treatment between PPA developers and the Company's owned projects, approve Xcel's proposed symmetrical cost cap for the capital investment associated with the wind generation and transmission upgrades, while at the same time also considering cost caps for on-going O&M and capital costs as well as incorporating the same PTC assumptions that were included in the petition to justify the economics of the project, in the calculation of the revenue requirements in the renewable rider – an approach worth considering because it is consistent with the competitive bidding process that the Company is using to acquire these resources; and
- Levelize the revenue requirements for the first five years to mitigate rate impacts to customers.

The Chamber appreciates the opportunity to provide comments in this proceeding.

Dated: May 1, 2017

Respectfully submitted,

MINNESOTA CHAMBER OF COMMERCE

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