

**STATE OF MINNESOTA
MINNESOTA PUBLIC UTILITIES COMMISSION**

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**In the Matter of the Xcel Energy
Renewable Energy Plan**

Docket No. E-002/M-07-1558

**COMMENTS OF WIND ON THE WIRES,
IZAAK WALTON LEAGUE OF AMERICA, FRESH ENERGY, AND
MINNESOTA CENTER FOR ENVIRONMENTAL ADVOCACY,**

Pursuant to the Commission's January 7, 2008, Notice of Comment Period in the above referenced docket, Wind on the Wires, Izaak Walton League of America – Midwest Office, Fresh Energy, and Minnesota Center for Environmental Advocacy ("Joint Parties") submit the following initial comments on several issues related to the Xcel Renewable Energy Plan ("Plan") filed with the Minnesota Public Utilities Commission ("Commission") on December 10, 2007. We are very pleased that Xcel Energy's Plan recognizes the benefits of renewable energy and plans for acquisition ahead of the milestones set in the Minnesota Renewable Energy Standard (RES). We appreciate that Xcel views this Plan as the first of many, and expects to revise it over time as they gain greater experience with renewables and more knowledge of the market. We provide comments below on several areas of the report we believe need additional detail or should be adjusted now, however.

Balance of Utility Ownership, Power Purchase Agreements, and C-BED

An important aspect of Xcel Energy's Plan is their proposed balance of resource

acquisition between Power Purchase Agreements (PPAs) with third party developers, utility ownership, and C-BED projects. Xcel Energy's suggestion that ultimately one-third each is the appropriate balance may be reasonable, yet we believe it is too early to tell if this balance is in the best interests of ratepayers. Joint Parties request that the Commission clarify that all renewable resources should be acquired on a level playing field. We believe it is prudent for Xcel to continue to acquire C-BED projects and to put out a Request for Proposals (RFP) for additional renewable resource acquisition in the form of PPA and utility-owned arrangements. Yet, resources from these three purchase arrangements need to be compared on an equal basis through competitive bidding.¹

Joint Parties suggest that Xcel not predetermine the amount of utility-owned megawatts of capacity it will accept in its proposed 500MW wind RFP. Xcel indicates that their proposed RFP will allow for projects that have a combination of utility ownership and PPA, which is positive. However, the RFP in Attachment H to their Plan states "NSP will consider proposals for projects with a minimum of two-thirds of the offered MW under a BT [build-transfer] arrangement and the remaining generation (up to one-third or an additional 250MW) being retained by the bidder and contracted under a long term Power Purchase Agreement ("PPA")".² We suggest that Xcel allow bidders to propose PPA or utility owned arrangements, or any combination of these, not restricting PPAs to one-third. Xcel should then compare these bids to determine which combination of bids brings the greatest benefits to their customers.

Xcel Energy's commitment to work to acquire one-third of their renewable

¹ We are not suggesting that all three types of purchase arrangements must be included in the same RFP. But similar considerations, such as cost to customers, should be used to evaluate each.

² Plan, Attachment H, p. 1.

resources from C-BED projects offers strong support for Minnesota communities through local development of renewable resources. However, even C-BED projects should be considered on a level playing field with other renewable projects. Proposed C-BED projects should be compared against each other so that those ultimately chosen and developed to serve Xcel Energy's customers bring the greatest benefits at the lowest price. This kind of comparison could take place in the context of an RFP for C-BED projects such as Xcel Energy has included in its Attachment E to the Plan. We do suggest, however, that such RFP's provide more information for bidders on the criteria that will be used to compare proposals, such as cost/MWh, location diversity provided by the resource, the ability to dispatch the resource, and creditworthiness of the bidders.

Peaking Resources

In its Executive Summary, Xcel Energy highlights the need for sufficient peaking resources and ancillary services to assist in balancing load and generation as penetrations of wind capacity grow on their system to meet RES requirements. This need is described further in a Section on "Operational Flexibility". Joint Parties agree that additional flexible resources like peaking plants may be needed as Xcel reaches high levels of wind penetration, not to balance wind directly, but to balance the system as a whole. The Minnesota Wind Integration Study estimates that the system need for total operating reserves will increase from 5% to approximately 7% when 25% of Minnesota's load is served by wind energy, compared with meeting load without wind.³ If such a system need is related to meeting the RES requirements cost-effectively, detailed justification of such resources, and action plans to acquire them, should be included in this Plan, not only

³ Final Report - 2006 Minnesota Wind Integration Study, page xvii.

within Xcel Energy's integrated resource planning (IRP) process. We do not find this detail in the current Plan and request that the Commission require Xcel to study and provide a plan that outlines the expected amount of flexible capacity needed and a timeline for acquisition.

Load Forecast Assumptions (Gap Analysis)

Xcel Energy notes that determining the amount of nameplate capacity of wind needed to meet their RES requirements is dependent on assumptions about load growth, demand side management additions, and performance improvement in wind turbines. Joint Parties are pleased that Xcel seems to be working with a single planning number rather than a wide range, such as that presented in the gap analysis of the Minnesota Biennial Transmission Projects Report, and in the CapX Certificate of Need (CON) application.⁴ Both resource and transmission planners need to understand the total amount of megawatts for which they are planning. We support Xcel Energy's goal of acquiring additional renewable resources in advance of their milestone requirements, and working with a high planning number relative to the gap analysis. Xcel Energy notes that they are planning to add 2600MW of wind resources by 2020 to meet the requirements in all of their NSP jurisdictions, though they do not indicate amounts of other renewable technologies. It is unclear how the number 2,600 MW has been determined. No detailed gap analysis has been presented in the Plan or appendices, and we request that these details be provided.

With regards to transmission, Joint Parties suggest that Xcel Energy err on the conservative side and plan for transmission needs based on the high-end results of the gap

⁴ The "gap analysis" presented in these two documents identifies the difference between current owned and contracted utility renewable resources and the total megawatts needed to meet the RES milestones.

analysis in the CapX Certificate of Need Application. This approach will be especially important because transmission planning and construction lead-time is lengthy. It will be unacceptable for Xcel Energy to fall short in meeting the RES milestones because it has not planned for enough transmission based upon being too optimistic in the gap analysis. Settling on a conservative total megawatt amount needed to meet the 2012 milestone is within the utilities' control, as is planning and constructing adequate transmission to deliver the renewable energy. Given the uncertain assumptions about the future, Joint Parties recommend that the utilities plan for the higher end of the range presented in gap analysis, once those analysis details are enumerated.

Transmission Construction and Planning

In the Executive Summary, Xcel Energy lists expansion of transmission resources as one key need for success in RES compliance.⁵ Xcel provides more detail on this need in Section D. "Transmission and Ancillary Services Requirements" of the "Overview of Renewable Market". While Xcel Energy points to the importance of transmission expansion and the recent Minnesota Biennial Transmission Plan, Joint Parties can not stress this point enough. Transmission resources are so critical for renewable resource acquisition and ultimately RES compliance, that we request that Xcel Energy detail its plan to acquire transmission resources to support its renewable acquisitions as an integral part of this Plan.

Xcel Energy's Plan indicates that it is working to develop additional transmission capacity to the Buffalo Ridge area and throughout Minnesota with three CapX 345 kV lines. However, "Xcel Energy recognizes that even with these significant, planned

⁵ Plan, page 2.

transmission additions, more transmission infrastructure is needed.”⁶ Xcel Energy references the 2007 Minnesota Biennial Transmission Projects Report (“Report”) that states that Minnesota utilities will be able to meet the 2010 and 2012 milestones with modest transmission upgrades.⁷ As we indicated in the Wind on the Wires’ comments on this Report, Joint Parties believe that additional transmission capacity will be needed to meet these milestones.⁸

Even if the needed lines are 115kV and smaller, they will take some time to get approved, permitted and constructed. In order to meet the 2012 milestone, transmission additions must be identified now, and brought on-line ahead of wind plant construction. If Xcel Energy is assuming that certain new lines will be in service by 2012 to help meet this milestone, this Plan should indicate specifically which lines will be relied upon and what their status is in terms of approval, construction and in-service dates. Anything short of providing these details will not be sufficient.

The Buffalo Ridge Incremental Generation Outlet (BRIGO) project was very successful. And for the 2012 time frame, Xcel Energy should be focusing on incremental transmission additions like this that can enable new wind resource additions in the 200-400 MW range. We applaud Xcel Energy’s Regional Incremental Generation Outlet (RIGO) effort.⁹ Xcel should accelerate this effort and explore similar transmission opportunities that can bring on smaller amounts of wind capacity in the near future and

⁶ Plan page 24.

⁷ 2007 Minnesota Biennial Transmission Projects Report, Part II, Section 2.14, page 275.

⁸ January 15, 2008, Docket No. E-999/M-07-1028, Comments of Wind on the Wires, page 3.

⁹ 2007 Minnesota Biennial Transmission Projects Report, Part II, Section 3.4.1, page 282.

serve to support larger backbone lines that may be added later. These transmission planning details are critical and must be included in Xcel Energy's Plan to meet the RES.

MISO Interconnection Challenges

Joint Parties agree with Xcel Energy's concern about the barrier to renewable development the industry is experiencing as a result of the MISO interconnection process. Wind on the Wires and their member companies have been working alongside Xcel Energy and other stakeholders to come up with solutions to this challenge in the MISO Interconnection Process Task Force. We appreciate some of the steps Xcel Energy says it is taking to allow projects to keep moving forward despite these challenges. Implementing special protection schemes¹⁰, or arranging for other curtailable interconnection agreements, can allow projects to come on-line prior to the completion of transmission upgrades necessary to ensure delivery of the output in all hours. However, we have a concern about the approach Xcel Energy is suggesting relative to addressing interconnection challenges with C-BED projects.

Xcel proposes to pass through two types of costs related to the interconnection requirements for C-BED projects. While we appreciate Xcel Energy's desire to remove barriers to C-BED development, this approach seems to place a significant amount of cost risk on ratepayers. Costs related to interconnection facilities as well as cost increases due to interconnection delay can result in a significantly higher per megawatt hour cost from the project. Prior to signing a PPA, Xcel must have good estimates of those costs and an evaluation of the total cost of the C-BED project that ensures it is still a good investment for Xcel Energy's customers.

¹⁰ Special protection schemes allow a generator to connect to the grid when no firm transmission capacity is available, by allowing the transmission provider to curtail the generator when reliability is compromised.

Conclusion

The Joint Parties appreciate Xcel Energy's Plan, but we find it lacking significant details in several areas. We respectfully request the Commission require Xcel Energy to:

1. Plan to acquire renewable resources without prejudging the appropriate balance between utility ownership, PPA, and C-BED. All purchase options should be compared on an equal basis.
2. Provide detailed analysis and justification for any peaking resources or ancillary services needed by the system as a whole to support Xcel Energy's integration of wind resources within this Plan, as well as through the IRP process. Action plans for acquisition of such resources should also be included in the Plan.
3. Provide the analysis used to determine the total megawatt amounts Xcel needs to meet each milestone, and use the same number for both resource planning and transmission planning.
4. Identify the specific new transmission lines needed to meet the 2012 RES milestone, and accelerate the study work and construction of any additional transmission needed for near term RES milestones. The Commission should make it clear that allocating adequate human resources in the area of transmission planning must be a priority for the company.
5. Consider how the company will propose any pass-through costs related to C-BED interconnection agreements, such that any pass-through costs born by ratepayers will not result in C-BED projects that have higher per megawatt hour costs than other similar projects.

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Respectfully submitted,



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