

STATE OF MINNESOTA
OFFICE OF ADMINISTRATIVE HEARINGS
FOR THE PUBLIC UTILITIES COMMISSION

In the Matter of the Application of Great
River Energy, Northern States Power
Company (d/b/a Xcel Energy) and others for
Certificates of Need for the Cap X 345-kV
Transmission Projects.

**WINDUSTRY COMMENTS ON SCOPE
OF ENVIRONMENTAL REPORT**

INTRODUCTION

These comments on the scoping of the Environmental Report are submitted on behalf of Windustry, a non-profit organization dedicated to the support of community based wind energy. Windustry has been a participant in prior CapX 2020 proceedings regarding notice to landowners, exemptions to application requirements and concerns about the completeness of the utilities' application to construct three 345 kV high voltage power lines. These scoping comments are intended to ensure that Minnesota does not undertake an expensive investment in high voltage transmission to support remote central station non-renewable generation unless there is no reasonable alternative to this outmoded paradigm. Transmission alternatives must be designed for an energy future based on demand side management, a preference for renewable energy and efficient use of infrastructure to support geographically dispersed wind energy.

There is no dispute that the CapX 2020 power lines, extending over 600 miles in length and costing an estimated \$1.4 billion to \$1.7 billion to construct, represent the most substantial transmission infrastructure project ever to be reviewed by the Minnesota Department of Commerce (DOC) or considered by the Minnesota Public Utilities Commission (PUC). In addition to requiring an extraordinary commitment of ratepayer resources, the proposed CapX 2020 projects would have a substantial impact on Minnesota's energy future. Were these projects to be certified, Minnesota would have no remaining jurisdiction to consider whether non-renewable generation from neighboring

states should be approved. Location and costs of interconnection would also influence the degree to which wind energy will develop throughout Minnesota.

The utilities' application for the CapX 2020 power lines provided only narrow and sketchy information on likely generation projects, only a cursory review of demand management, transmission or generation alternatives and no data from which fiscal impacts on ratepayers could be determined. Without a rigorous regulatory response to require alternatives analysis, the CapX 2020 certificate of need process would uniquely lack transparency and make it difficult to determine if Minnesota's statutory requirements are being met.

The impact on Minnesota ratepayers of an incomplete analysis and overly sanguine evaluation of the CapX 2020 projects has been increased by a recent decision of the Federal Energy Regulatory Commission (FERC). Under a decision issued by FERC December 21, 2007 in response to a petition of Xcel Energy, if the CapX 2020 projects receive a certificate of need from the Minnesota Public Utilities Commission, they will be presumed to comply with federal standards governing rate incentives. Xcel Energy and, presumably, other utilities investing in the CapX 2020 projects, will be entitled to 100 percent of Construction Work in Progress (CWIP) for costs incurred to construct the power lines, and 100 percent of CWIP even if the power line projects are cancelled or abandoned.¹

In other words, Minnesota ratepayers, not shareholders will bear the risk if the demand forecast or generation pattern generically hypothesized in the CapX 2020 application doesn't materialize or if other more appropriate power lines are identified through the regional planning process.² The magnitude of the projects and the magnitude of this risk to residents and businesses requires that alternatives to the CapX 2020 must be evaluated in detail. The general truism that some additional transmission investments will be needed to support renewable energy does not mean that the particular transmission lines proposed in the CapX 2020 application are the size, type, timing or location that might be required.

¹ *Xcel Energy Services, Inc.*, 121 FERC ¶61,284, Order Granting Incentives, and Accepting Proposed Rate Formula Modifications, Subject to Conditions (2007). (¶1, 10, 62, 63)

² *Ibid*, see e.g. ¶17, 19

It should be noted that Judge Beverley Heydinger, the Administrative Law Judge in this case, has already stated on the record that justification for each proposed transmission line must be independently proved to determine if that energy facility is needed. (Prehearing Conference, December 19, 2008). Windustry is relying on the Department of Commerce in the Environmental Report and subsequent proceedings to hold the applicants to their burden of proof.

This comment provides legal and factual explanations, pursuant to Minn. R. 7849.7050, subd.6, why each alternative proposed herein by Windustry should be included in the scope of the Environmental Report and considered before a determination of need for any of the CapX 2020 lines is made. The alternatives that Windustry requests be considered are:

1. Demand side management, including management of peak loads, conservation and energy efficiency as required under certificate of need statutes and newly enacted Conservation Improvement Program (CIP) reforms. (Minn. Stat. §216B.243, subd. 3, (1), (2), (6), (8); §216B.241)
2. Transmission designed for renewable energy sources, both to comply with certificate of need requirements and to optimize generation outlet capacity for wind generation to achieve the renewable energy standard objectives. (Minn. Stat. §216B.243, subd. 3 (11) and subd.3a. §216B.1691, subd. 3a)
3. Transmission upgrades based on a combination of lower voltage transmission lines and substation improvements to encourage distributed generation, community based energy development and more rapid deployment of wind resources. (§216B.243, subd.3 (6), §216B.1612, 2007 Session Laws, Ch.3, 136)

I. MINNESOTA LAW REQUIRES FINDING THAT THERE IS NO FEASIBLE AND PRUDENT ALTERNATIVE BEFORE ANY HIGH VOLTAGE POWER LINE CAN BE APPROVED IN THE CERTIFICATION PROCESS.

Before any high voltage transmission line can be built in Minnesota, the PUC must determine whether it is necessary and in the best interests of the State. (Minn. Stat. §216B.243). The Department of Commerce must prepare an Environmental Report containing information on the human and environmental impacts of the proposed project and alternatives to the proposed project, and its Commissioner, not the applicant for certification, is “responsible for the completeness and accuracy of all information in the Environmental Report.” Minn. R. 7849.7030.

In carrying out their responsibilities for certifying the need for any high voltage transmission line and preparing the Environmental Report, both the DOC and the PUC must follow Minnesota Environmental Policy Act statutes pertaining to consideration of alternatives. As stated in the Minnesota Session Laws consolidating the energy approval process, “The Department of Commerce and the Public Utilities Commission shall carry out these duties in accordance with the provisions of Minnesota Statutes, section 116D.03.” (Minnesota Session Laws 2005, Chapter 97, Article 3, Section 17).

Minnesota Statutes section 116D.03, the Minnesota Environmental Policy Act (MEPA), imposes upon state departments and agencies issuing permits or other approvals the obligation to conduct a thorough review of alternatives to any project that would affect the quality of the environment. No state action or state permit significantly affecting the quality of the environment will be allowed or granted if there is “a feasible and prudent alternative consistent with the reasonable requirements of the public health, safety, and welfare and the state's paramount concern for the protection of its air, water, land and other natural resources from pollution, impairment, or destruction.” (Minn. Stat. §116D.04, Subd. 6).

The Minnesota Environmental Rights Act (MERA) similarly emphasizes the importance of alternatives analysis and requires a finding that “there is no feasible and prudent alternative and the conduct at issue is consistent with and reasonably required for promotion of the public health, safety, and welfare in light of the state's paramount concern for the protection of its air, water, land and other natural resources from pollution, impairment, or destruction.” (Minn. Stat. §116B.04)

High voltage transmission lines are subject to both MEPA and MERA. No Power Line, Inc. v. Minnesota Environmental Quality Council (EQC), 262 N. W. 2d 312 (Minn. 1977); People for Environmental Enlightenment and Responsibility (PEER), Inc. v. Minnesota Environmental Quality Board (MEQB), 266 N.W. 2d 858 (Minn. 1978). Prior case law has determined that “by definition, the siting of HVTLs [high voltage transmission lines] will cause some impairment of the environment” PEER v. MEQB, 266 N.W. 2d at 867-868. Once this showing is made, approval of a power line can only be justified if the state agency can demonstrate that no feasible and prudent alternative exists to the project, consistent with the public health, safety and welfare. PEER v.

MEQB, 266 N.W. 2d at 867. Recent Minnesota litigation regarding alleged death of cattle from electric power line stray voltage highlights the importance of demonstrating that a power line is needed before the environmental risk of power line construction is undertaken.³

The Application for certificate of need for the CapX 2020 transmission lines has not demonstrated that no feasible and prudent alternative exists to the three 345 kV power lines. Alternatives incorporating demand side management, Minnesota renewable energy preference and standards, and planning to support distributed and dispersed renewable energy must be evaluated in the Environmental Report. These alternatives may well provide a feasible, prudent and less costly alternative to the CapX 2020 power lines.

II. THE ENVIRONMENTAL REPORT SHOULD ANALYZE ALTERNATIVES BASED ON LOAD MANAGEMENT AND CONSERVATION, INCORPORATING THE 2007 ENERGY-SAVINGS REFORMS.

Under Minnesota law, no proposed large energy facility shall be certified for construction unless the applicant can show that demand for electricity cannot be met more cost effectively through energy conservation and load-management measures and unless the applicant has otherwise justified its need. (Minn. Stat. §216B.243, subd. 3). The commission must evaluate the effect of existing or possible energy conservation programs on long-term energy demand, subd. 3(2); possible alternatives for satisfying the energy demand or transmission needs including potential for increased efficiency and load management programs, subd. 3(6); and any feasible combination of energy conservation improvements that can replace part or all of the energy to be provided by the proposed facility in an economically competitive manner, subd. 3(8).

- A. *Alternatives should be provided for all three proposed CapX 2020 lines, based on conservation improvements incorporated in resource plan low growth projections and energy-savings standards enacted in Minnesota's 2007 statutes.*

The Application for the CapX 2020 projects failed to make a basic showing that any of the three proposed power lines would be needed if the effects of existing and possible energy programs on energy demand were taken into consideration. No

³ *Cows are dying and farmers think they know why*, H.G. Cummins, Star Tribune, January 7, 2008.

transmission alternatives were analyzed to take into account the data on conservation that had already been considered and incorporated into utility resource plans or the electricity sales projections that have been developed by the Governor's Minnesota Climate Change Advisory Group (MCCAG) and its Energy Supply Technical Working Group.⁴

The CapX 2020 utilities based their assertion that 600 miles of 345kV power lines were needed for "regional reliability" on a demand forecast of 6,300 MW of growth by 2020. A "sensitivity analysis" was then performed to determine if the conclusions that their engineers had reached for this artificially high demand level could also apply if the 6300 MW model was scaled down in each utility's control area to 4500 MW by 2020. (Application to the Minnesota Public Utilities Commission for Certificates of Need for Three 345 kV Transmission Line Projects with Associated System Connections, hereinafter, "Application," p. 6.31; Appendix A-1, *CapX 2020 Technical Update: Identifying Minnesota's Electric Transmission Infrastructure Needs*, October 2005, hereinafter "App. A-1, CapX 2020 Study," p. 27). This analysis did not include the effects of existing conservation which are reflected in median and low growth estimates in approved resource plans or the effect of future conservation pursuant to the 2007 Conservation Improvement Program (CIP) reforms. (Minn. Stat. §216B.241, subd. 1c).

The utilities have acknowledged that regional demand growth by 2020 would be 4095 MW based on the median growth estimated in approved resource plans, a projection below the 4500 MW in the CapX 2020 Study sensitivity analysis. (Application, pp. 6.9, 6.10, 6.31, App. A-1, CapX 2020 Study, pp. 5, 27). No data is provided in the Application as to regional demand growth by 2020 under low growth resource plan estimates and no alternatives are proposed for any of the three transmission lines under such lower growth assumptions.⁵

In addition, although requested by the Commission to provide demand information incorporating new energy-saving goals in usable form, no analysis has been done of the

⁴ The Energy Supply Technical Working Group of MCCAG included Eric Olsen from Great River Energy and David Sparby from Xcel Energy. <http://www.mnclimatechange.us/ewebeditpro/items/O3F12847.pdf>

⁵ The CapX 2020 utilities' technical team concluded that, if regional demand were to grow 4500 MW by 2020, under at least one plausible pattern of new generation "there was less justification for some of the various recommended transmission lines." (App. A-1, CapX 2020 Study, p. 29). The technical analysis (e.g. line flows) of what may not be justified under a 4,500 MW growth assumptions and an "eastern bias" generation pattern is missing from the Study and from the Application. (See App. A-1, CapX 2020 Study, pp. 21, 24, 26, 31, 34).

alternative type or timing of power lines that might be needed if gross annual retail energy sale were to be reduced 1.5 percent and these reductions compounded to 2020.

As the first step in its analysis of alternatives, the Environmental Report should review all feasible conservation improvements, both existing conservation reflected in resource plans and future conservation required by Minnesota's 2007 CIP reforms, which could replace in whole or in part the energy, assumed to be needed in the CapX 2020 analysis. (Minn. Stat. §216B.243, subd.3(8))

Many studies, including a recent study by the Minnesota Office of the Legislative Auditor, have concluded that up to 30 percent of future energy needs could be met by cost-effective conservation.⁶ The Commission reflected a similar guidepost in proposing that applicants file a discussion of the anticipated consequences of the expected demand level and a demand level 30 percent lower.⁷

The Environmental Report and review of need in this CapX 2020 process also has the benefit of the analysis completed by MCCAG to evaluate the greenhouse gas reductions resulting from the 2007 CIP reforms. The MCCAG revised the 2007 Xcel Resource Plan projections of electricity sales based on updated assumptions from its Technical Working Group and determined that annual sales growth of 0.82 percent was a reasonable projection.⁸

Under Minnesota Statutes 216B.243, subd. 3, analysis of what type, size and timing of power lines might support "regional reliability" should be net of any feasible and cost-effective combination of energy conservation improvements that could replace part or all of the energy to be provided by the proposed CapX 2020 transmission facilities.⁹

⁶ Minnesota Office of the Legislative Auditor, "Evaluation Report – Energy Conservation Improvement Program," January 2005, page 3, available at www.auditor.leg.state.mn.us/ped/2005/pe0504.htm

⁷ *In the Matter of the Application of Great River Energy, Northern States Power Company (d/b/a Xcel Energy) and Others for a Certificate of Need for the CapX 345-kV Transmission Project*, Order Designating Applicants and Setting Filing Requirements, Docket No. ET-2, E-002, et al./CN-06-115, p. 20¶12(A).

⁸ See Minnesota Climate Change Advisory Group, *RCI Technical Work Group Teleconference Meeting #11*, 4 January 2008 PowerPoint presentation on RCI-1, which is available at <http://www.mnclimatechange.us/ewebeditpro/items/O3F14544.pdf>

⁹ A downward revision in demand may undermine a need determination. On March 23, 1978, following a downward revision of demand forecasts, the Minnesota Energy Agency voided the certificate of need for the Sherco 4 coal plant on the grounds that the time delay before the proposed in-service date "increases the possibility that changes in technology, economic factors, load characteristics, fuel options and political and social considerations" would result in a change in the optimal size and type of facility necessary. See State

Windustry would request that the Environmental Report analyze as alternatives to replace all or part of the generation to be transmitted by the proposed CapX 2020 projects:

- a) the conservation incorporated in low growth assumptions in approved resource plans of the CapX 2020 utilities;
- b) the additional energy-savings required by the 2007 CIP statutory reforms as estimated in MCCAG electricity sales projections;
- c) additional cost-effective conservation to reduce greenhouse gases based on the MCCAG cost savings analysis;
- d) a conservation benchmark based on reducing median growth resource plan projections by 30 percent.

For each of these conservation alternatives, the Environmental Report should evaluate whether the projected conservation is cost-effective. The Environmental Report should then evaluate the demand under each alternative to determine what size, type and timing of transmission might be appropriate if all feasible and cost-effective conservation were to be deployed.

B. Load management, coupled with local generation or local transmission upgrades should be analyzed as alternatives to Fargo and LaCrosse transmission lines.

Both the Twin Cities – La Crosse and the Twin Cities – Fargo 345 kV power lines are proposed by the CapX 2020 utilities as a solution for local community service reliability concerns resulting from growth in peak loads. For the proposed Twin Cities – LaCrosse line, a compound summer peak growth rate of 3.46 percent in the Rochester area was applied to grow the load to the year 2020 (Application, p. 4.5), while for the proposed Twin Cities – Fargo power line both winter peak load growth in Alexandria and summer peak load growth in St. Cloud were used to justify 345 kV power lines. (Application, pp. 4.29, 4.34). Missing from the narrative in the CapX 2020 Application is any discussion of conservation, energy efficiency or peak load management alternatives to transmission as required by Minn. Stat. §216B.243, subd. 3 (6), (8).

In addition to analyzing energy conservation measures that would provide an alternative for all or part of energy demanded throughout the region through 2020, the

Etc. v. Minnesota Environmental Quality Board, 305 N.W. 2d 575, 581, 584 (Minn. 1981). Sherco 4 was never recertified and has never been built.

Environmental Report should analyze the alternative of peak load management to replace all or part of the energy demand asserted to justify the La Crosse and Fargo 345 kV lines on the basis of local service reliability. The Environmental Report should then look at local transmission upgrades, connecting generation located nearer to load, as feasible and prudent alternatives to the CapX 2020 lines.

Some data included in the appendices of the Application suggests that an evaluation of alternatives may identify that a combination of lower-voltage 161 kV lines and transformer improvements may provide a cost-effective alternative to the CapX 2020 power lines. The Southern Minnesota – Southeastern Wisconsin Reliability Enhancement Study seems to suggest that Rochester area community reliability problems could be resolved through 2033 for an estimated \$23 million, far below the CapX 2020 cost.¹⁰

Once conservation and peak load management are maximized, the Environmental Report should analyze whether an alternative combining demand side management with local generation or local more modest transmission improvements would be a feasible and prudent alternative to the proposed CapX 2020 345 kV high voltage power lines.

III. THE ENVIRONMENTAL REPORT SHOULD ANALYZE TRANSMISSION ALTERNATIVES FOLLOWING MINNESOTA’S RENEWABLE ENERGY PREFERENCE AND OPTIMIZING WIND ENERGY GENERATION TO MEET RENEWABLE ENERGY STANDARDS.

Minnesota law states a clear priority for transmission that supports renewable, rather than non-renewable generation. Minn. Stat. §216B.243, subd. 3a, which is also referenced in subdivision 3(11), requires comparison of the proposed power lines with reasonable alternatives that transmit power generated by renewable energy. Subdivision 3a reads:

The commission may not issue a certificate of need under this section for a large energy facility that generates electric power by means of a nonrenewable energy source, or that transmits electric power generated by means of a nonrenewable energy source, unless the applicant for the certificate has demonstrated to the commission's satisfaction that it has explored the possibility of generating power by means of renewable energy sources and has demonstrated that the alternative

¹⁰ Appendix A-2, Southern Minnesota – Southeastern Wisconsin Reliability Enhancement Study, March 13, 2006, pp. 3, 60-61.

selected is less expensive (including environmental costs) than power generated by a renewable energy source. For purposes of this subdivision, "renewable energy source" includes hydro, wind, solar, and geothermal energy and the use of trees or other vegetation as fuel.

Minnesota has also recently enacted statutes requiring that each electric utility generate or procure sufficient renewable energy so that at least 25 percent of the utility's total retail electric sales to retail customers is generated by eligible energy technologies by 2020. For Xcel Energy the renewable energy standard is 30 percent by 2020. (Minn. Stat. 216B.1691, Subd. 2a(a), Subd.2a(b) 2007).

The CapX 2020 projects were designed to transmit power predominantly from non-renewable energy and to provide a regional energy mix that is inconsistent with Minnesota's renewable energy standard.

A. *The Environmental Report should include a transmission alternative designed to transmit power generated by means of renewable energy sources.*

The Application makes it clear both that the CapX 2020 high voltage power lines were designed primarily, although not exclusively, to transmit non-renewable energy and that the CapX 2020 projects would not be sufficient to support Minnesota's renewable energy standard.

The Application discloses that each of the generation scenarios modeled for the CapX 2020 power lines included only 2,275 MW of renewable energy out of the 6,300 MW total new generation projected. In other words, 54 percent of the new generation modeled in the CapX 2020 analysis was non-renewable generation. Where there was a breakdown of the assumptions to show Minnesota and non-Minnesota renewable energy, CapX 2020 only modeled 975 MW of additional Minnesota renewable generation through 2020. (Application, pp. 6.19, 6.21, 6.23).

Looking at the diagrams of specific sites from which generation was modeled in the CapX 2020 study, it appears that much of the new generation is coal combustion. Generation points on each map seem to represent lignite coal in western North Dakota, Big Stone coal in South Dakota and Mesaba IGCC coal in Minnesota along with other non-renewable generation (See App. A-1, CapX 2020 Study, pp. 10-12, Diagrams 6, 7 and 8). The CapX 2020 assumptions that most new generation will be non-renewable and

that transmission over the next decade must be designed to transmit new coal power are inconsistent with Minnesota's statutory preference for renewable energy.

The level of renewable energy modeled in the CapX 2020 scenarios is also substantially less than the level needed to comply with the Minnesota Renewable Energy Standard 2007. The Application suggests that the CapX 2020 utilities will need to provide approximately 5,000 MW renewable energy by 2020, most of which will be wind energy, to comply with the new Renewable Energy Standard (RES). (Application Appendix D-7, Minnesota Renewable Energy Standard). The CapX 2020 utilities also acknowledge that the CapX 2020 study process was not designed to analyze the transmission improvements needed to bring this additional renewable energy generation on line. (Application, p. 1.15).

Windustry requests that the Environmental Report evaluate a transmission alternative that begins with a realistic energy demand forecast and then models a combination of renewable energy sources to meet this energy need. The locations at which new generation would be posited should be chosen based on renewable projects in the MISO queue, advantageous wind regimes and a balance of larger and smaller wind projects distributed to provide efficient access to existing transmission. The costs of this renewable energy transmission alternative, including environmental costs of underlying generation, should then be compared with the CapX 2020 proposal.

B. The Environmental Report should include a transmission alternative designed to maximize wind energy generation outlet capacity in order to meet the objectives of Minnesota's renewable energy standard.

Minnesota statutes require utilities to determine the necessary transmission upgrades to support the development of renewable resources to meet the renewable energy standard objectives. (Minn. Stat. §216B.2425, subd. 7). To determine that a proposed transmission project is necessary to support renewable energy obligations, the following must be proved:

- (1) that the transmission facility is necessary to allow the delivery of power from renewable sources of energy to retail customers in Minnesota;
- (2) that the applicant has signed or will sign power purchase agreements, subject to commission approval, for resources to meet the renewable energy objective that are dependent upon or will use the capacity of the transmission facility to serve retail

customers in Minnesota;

(3) that the installation and commercial operation date of the renewable resources to satisfy the renewable energy objective will match the planned in-service date of the transmission facility; and

(4) that the proposed transmission facility is consistent with a least-cost solution to the utility's need for additional electricity.

(Minn. Stat. §216B.2425, subd. 7(b))

The CapX 2020 Application states that the primary impetus for the Twin Cities - Brookings County 345 kV transmission line is to increase transmission available for wind energy generation support in the Buffalo Ridge area. (Application, p. 4.36) Windustry is supportive of this objective. Windustry also believes that additional transmission is certain to be needed in western Minnesota in order to maximize the potential for wind generation. However, the CapX 200 application process provides too little information on alternatives to determine whether the proposed Twin Cities – Brookings power line is necessary, sufficient or cost-effective transmission support for wind energy in western Minnesota.

A key issue according to Minnesota Statutes 216B.2425, subd. 7 is the connection of a transmission line with power purchase agreements and a schedule for installation and operation of renewable resources. The CapX 2020 Application makes no commitment to deploy any specific wind resources. The fact that there are thousands of megawatts of wind energy in the MISO queue cannot substitute for this commitment. The 2007 MISO Transmission Expansion Plan highlights the fatal flaw in relying on the Midwest ISO queue process to support a renewable energy future:

Currently there is 42,414 MW of active Midwest ISO projects in the Generator Interconnections Queue. Of the 229 active projects, there are 33 projects with a signed interconnection agreement (IA) and an expected in-service date prior to 2016. These projects are expected to add 7,945 MW of additional capacity to the Midwest Market footprint. The expected capacity additions are dominated by 4,511 MW of coal projects. Gas fueled combined cycle projects amount to 1,805MW and wind projects total 1,008 MW.¹¹

In addition, it is clear that multiple smaller transmission upgrades are critical to support generation outlet capacity for wind in western Minnesota. The CapX 2020

¹¹ MTEP07 Midwest ISO Transmission Expansion Plan October 2007, Section 3:Midwest ISO System Info, p. 37, available at http://www.midwestmarket.org/publish/Document/5d42c1_1165e2e15f2_-7ba40a48324a/MTEP07_Report_10-04-07_Final.pdf?action=download&_property=Attachment

Application notes that when the southwestern Minnesota 345 kV power line certified by the PUC in 2003 is complete, there will be adequate transmission to support 825 MW of wind power from the Buffalo Ridge area. Construction of the three BRIGO 115 kV power lines will provide support for 1200 MW of wind. (Application, pp. 4.42-4.43). There is no information in the Application on what transmission or transformer upgrades would be needed to permit the southwestern Minnesota 345 kV line to carry its full capacity of over 2000 MW of wind generation.

The Application similarly contains no data on what additional generation is likely to be deployed in the Buffalo Ridge area or in other parts of western Minnesota or what purchase schedule and transmission constraints might justify the particular size and location of the Brookings County high voltage power line. The Application also contains no information on what other transmission or transformer upgrades might be needed along with the proposed Brookings County line in order to provide generation outlet capacity for wind energy at any specified level.

Windustry would propose that the Environmental Report evaluate an alternative beginning with the premise that transmission upgrades should maximize the use of the southwestern 345 kV power line for renewable energy. The alternative should then explicitly study what network of additional power lines of various sizes and locations would maximize generation outlet capacity from advantageous western Minnesota wind generation sites to Twin Cities load. The most effective deployment of wind energy on and north of the Buffalo Ridge may or may not include the proposed Brookings line.

IV. THE ENVIRONMENTAL REPORT SHOULD ANALYZE TRANSMISSION DESIGNED TO SUPPORT DISTRIBUTED AND COMMUNITY BASED RENEWABLE ENERGY AND EFFICIENT USE OF EXISTING TRANSMISSION INFRASTRUCTURE.

Minnesota Statutes require that the PUC consider possible alternatives for satisfying the energy demand or transmission needs including but not limited to “upgrading of existing energy generation and transmission facilities” and “distributed generation.” (Minn. Stat. §216B.243, subd 3(6)).

The Legislature recently broadened this policy objective to look not only at low-emissions generation of ten megawatts or less (Minn. Stat. §216B.2426), but at other

opportunities for more efficient and rapid deployment of renewable energy using geographically dispersed development and upgrading of existing transmission facilities. The Legislature directed utilities to study and develop plans for transmission “to identify and optimize delivery of that renewable energy to Minnesota retail customers while maintaining system reliability” using recent studies regarding wind integration and distributed generation:

As part of the planning process, Minnesota electric utilities shall incorporate and build upon the analyses that have previously been done or that are in progress, including, but not limited to, the 2006 Minnesota Wind Integration Study and ongoing work to address geographically dispersed development patterns. (Minnesota Session Laws 2007, Chapter 3, Sec. 2).

In the 2007 session, the Legislature also specifically required a statewide study of 1200 MW of dispersed generation potential, defining dispersed generation as renewable energy between 10 and 40 megawatts in size. (Minnesota Session Laws 2007 - Chapter 136, Section 17). This study must distribute projects throughout Minnesota’s transmission planning zones and must identify modifications to the transmission system necessary to remedy problems caused by the installation of dispersed generation projects at the lowest voltage level transmission existing in the area. Recommendations for the first 600 megawatts of dispersed generation will be made by June 15, 2008, and recommendations for at least another 600 megawatts of dispersed renewable generation must be made a year later, by September 15, 2009.

The certificate of need statutes and 2007 Session Laws regarding dispersed generation reflect the importance of considering an additional alternative to the proposed CapX 2020 projects. Starting with an energy demand net of existing and future demand management and reflecting the need for transmission to support renewable energy, the Environmental Report should provide an alternative based on upgrading of existing transmission facilities and maximizing distributed and geographically dispersed generation of renewable energy.

This alternative may obviate the need for some or all of the proposed CapX 2020 345 kV transmission lines and permit faster more economical deployment of renewable energy. In addition, a transmission plan based on supporting geographically dispersed wind and other renewable energy projects will “optimize local, regional and state benefits from renewable energy development” and “facilitate widespread development of community-based renewable energy projects throughout Minnesota” consistent with the

policy directives of the State of Minnesota. (Minn. Stat. §216B.1612, subd.1).

CONCLUSION

If a responsible utility started today to plan for transmission through 2020 under Minnesota laws, that plan would incorporate existing conservation and future demand management to meet the energy savings goals in Minnesota's 2007 statute. Once an appropriate demand forecast had been determined, a responsible utility would conclude that most if not all new electric generation deployed through 2020 should be renewable generation in order to comply with Minnesota's renewable energy standards and renewable energy goals of neighboring states. Based on the most advantageous wind regimes, the cost-effectiveness of lower voltage upgrades and Minnesota policy favoring dispersed and distributed generation, the utility would have modeled various transmission alternatives to support renewable generation. That plan would certainly include smaller local upgrades, although it might also include additional high voltage transmission to provide generation outlet capacity in western Minnesota.

In our comments, Windustry is requesting that the Department of Commerce evaluate in the Cap X 2020 Environmental Report alternatives based on current laws and facts which were not reflected in the CapX 2020 Application. These alternatives would derive from demand side management, renewable energy preference and standards, and distributed and dispersed generation. This is what Minnesota statutes require.

It is possible that the \$1.4 to \$1.7 billion plan developed by the CapX 2020 utilities based on high growth demand forecasts rather than demand side management, a predominance of non-renewable energy, and an emphasis on bulk power transfer rather than distributed or dispersed energy will achieve some positive outcomes. However, it stretches credulity to believe that this plan developed with assumptions so clearly divergent from Minnesota fact, law and policy would provide the most cost-effective or environmentally favorable alternative.

Xcel Energy has seen to it that the risk of whatever transmission is approved in this process falls on its ratepayers, not on shareholders. Ratepayers will pay 100 percent of costs during construction and 100 percent of costs if the CapX 2020 power lines are cancelled or abandoned. Since no corporate risk remains to provide a check or balance, a

careful analysis of alternatives is yet more important. Windustry calls upon the Department of Commerce, through the Environmental Report and the entire certificate of need proceeding, to ensure that the public health, environment and financial well-being of Minnesota citizens and ratepayers is protected in this process.

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Respectfully submitted,

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