

BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

David C. Boyd  
J. Dennis O'Brien  
Thomas Pugh  
Phyllis A. Reha  
Betsy Wergin

Chair  
Commissioner  
Commissioner  
Commissioner  
Commissioner

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 CapX 345-kV Transmission  
Projects

ISSUE DATE: May 22, 2009

DOCKET NO. ET-2, E-002, *et al.*/CN-06-1115

ORDER GRANTING CERTIFICATES OF  
NEED WITH CONDITIONS

**PROCEDURAL HISTORY**

In 2005, Great River Energy (GRE) and Northern States Power Company d/b/a Xcel Energy (Xcel) (collectively, Applicants), on behalf of themselves and other entities,<sup>1</sup> proposed a plan for acquiring the capacity to transmit the electricity that they claim will be needed in the region by 2020. They called this capacity expansion plan the CapX 2020 Transmission Expansion Initiative (CapX).<sup>2</sup>

In 2006, GRE and Xcel started the process of obtaining permits to build the first phase of CapX 2020, called the Group 1 Projects.<sup>3</sup> GRE proposed the **Brookings Project**, a 345-kV transmission

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<sup>1</sup> Central Minnesota Municipal Power Agency, Dairyland Power Cooperative (La Crosse Project), Minnesota Power, Missouri River Energy Services, Otter Tail Power Company, Rochester Public Utilities, Southern Minnesota Municipal Power Agency, and Wisconsin Public Power, Inc.

<sup>2</sup> See *In the Matter of the 2005 Minnesota Biennial Transmission Filing*, Docket No. E-999/TL-05-1739, 2005 Minnesota Biennial Transmission Projects Report, Issue 2005-CX-1 "CapX 2020 Vision Plan."

<sup>3</sup> In addition to the 345 kV transmission projects being proposed here, the Group 1 Projects also include a 230 kV project being addressed in other dockets. See Docket No. E-017, E-015, ET-6/CN-07-1222, *In the Matter of the Application of Otter Tail Power Company, Minnesota Power and Minnkota Power Cooperative, Inc. for a 230 kV Transmission Line From Bemidji to Grand Rapids, Minnesota*; E-017, E-015, ET-6/TL-07-1327, *In the Matter of the Application for a Route Permit for the Bemidji - Grand Rapids 230kV Transmission Project*.

line from Brookings, South Dakota, to the southeastern quadrant of the Twin Cities metropolitan area, and a 345 kV line from Marshall, Minnesota, to the Granite Falls area.<sup>4</sup> Xcel proposed the **La Crosse Project**, a 345 kV line between the southeast quadrant of the Twin Cities through Rochester to La Crosse, Wisconsin.<sup>5</sup> And Xcel proposed the **Fargo Project**, a 345 kV line from Fargo, North Dakota to Alexandria, St. Cloud and Monticello.<sup>6</sup> Because each of these projects qualifies as a "large energy facility," Applicants must acquire Certificates of Need from the Commission before proceeding.

For administrative simplicity, the Commission directed Applicants to address in the current docket all of the CapX Group 1 projects that Applicants would include in their application for the required Certificates of Need.<sup>7</sup>

On June 4, 2007, the Commission issued its ORDER DESIGNATING APPLICANTS AND SETTING FILING REQUIREMENTS authorizing GRE and Xcel to proceed as Applicants (Applicants) for this project even though other entities may ultimately take ownership interests in it.<sup>8</sup>

On August 16, 2007, Applicants filed their Application for Certificates of Need for Three 345 kV Transmission Line Projects with Associated System Connections.

On November 21, 2007, the Commission accepted Applicants' filing as substantially complete<sup>9</sup> and referred the matter to the Office of Administrative Hearings for a contested case proceeding.<sup>10</sup>

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<sup>4</sup> *In the Matter of the Application of Great River Energy and Others for a Certificate of Need for the CapX Brookings, S.D. -- Southeast Twin Cities 345-kV Transmission Project*, Docket No. ET-2/CN-06-857.

<sup>5</sup> *In the Matter of the Application of Northern States Power Company (d/b/a Xcel Energy) and Others for a Certificate of Need for the CapX Twin Cities-Rochester-La Crosse 345-kV Transmission Project*, Docket No. E-002/CN-06-979.

<sup>6</sup> *In the Matter of the Application of Northern States Power Company (d/b/a Xcel Energy) and Others for a Certificate of Need for the CapX Fargo-Alexandria-St. Cloud-Monticello 345-kV Transmission Project*, Docket No. E-002/CN-06-1115.

<sup>7</sup> ORDER APPROVING NOTICE PLANS AND REQUIRING COMPLIANCE FILINGS (November 3, 2006), this docket.

<sup>8</sup> ORDER DESIGNATING APPLICANTS AND SETTING FILING REQUIREMENTS (June 4, 2007), this docket.

<sup>9</sup> ORDER ACCEPTING APPLICATION AS SUBSTANTIALLY COMPLETE PENDING SUPPLEMENTAL FILING (November 21, 2007), this docket. Applicants made the required supplemental filing on November 27, 2007.

<sup>10</sup> NOTICE AND ORDER FOR HEARING (November 21, 2007), this docket.

The Office of Administrative Hearings assigned Administrative Law Judge (ALJ) Beverly Jones Heydinger to preside over this matter. She conducted extensive public and evidentiary hearings with the participation of the following parties:<sup>11</sup>

- Applicants, represented by Michael C. Krikava and Lisa M. Agrimonti, Briggs and Morgan, P.A., and Priti Patel, Assistant General Counsel, Xcel, on behalf of Xcel, co-Applicant GRE and other CapX 2020 utilities.
- The Citizens Energy Task Force (CETF), a group of Dakota County residents, many of whom are concerned that the proposed CapX projects would directly impact their property. CETF was represented by Paula Maccabee, Attorney at Law.
- The Midwest Independent Transmission System Operator, Inc. (MISO), the federally-regulated administrator of the region's transmission grid. MISO's functions include operating the market which determines which generators will operate at any given time, and administering the MISO Generator Interconnection Queue to determine which generators may interconnect with the transmission grid. MISO was represented by Christopher Sandberg of Lockridge Grindal Nauen, P.L.L.P.
- The Minnesota Center for Environmental Advocacy (MCEA), the Union of Concerned Scientists, the Izaak Walton League – Midwest Office, Fresh Energy, and Wind on the Wires (collectively, the Joint Intervenors), groups promoting the development of wind-powered electric generators. The Joint Intervenors were represented by Mary Winston Marrow and Elizabeth Goodpaster, Staff Attorneys, MCEA.
- NoCapX 2020, an organization of landowners and residents in the vicinity of one of the transmission corridors. NoCapX 2020 was represented by Carol Overland, Overland Law Office.
- The North American Water Office and the Institute for Local Self-Reliance (NAWO/ILSR), groups promoting community-based renewable energy projects. NAWO/ILSR were represented by George Crocker, Executive Director, North American Water Office.
- The Office of Energy Security (OES), a division of the Minnesota Department of Commerce (the Department) addressing issues of energy, climate change, and greenhouse gas emissions. OES was represented by Julia Anderson, Assistant Attorney General.

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<sup>11</sup> The Prairie Island Indian Community also intervened in the proceeding, but later withdrew without participating.

- United Citizens Action Network (UCAN), a group of Minnesota landowners whose private property interests may be directly affected by the proposed projects. UCAN was represented by Joyce Osborn and Roger Tupy.

On February 18, 2008, the Department's Commissioner issued a decision establishing the scope of the environmental assessment that OES would perform in this matter (Scoping Decision). And on March 31, OES issued its Environmental Report addressing the issues identified in the Scoping Decision.<sup>12</sup>

On May 15, 2008, Applicants filed direct testimony proposing three new 345-kV transmission lines. On May 23, CETF, OES, MISO, MCEA and NAWO/ILSR filed direct testimony. In particular, the Joint Intervenors and OES proposed the construction of larger transmission lines.

On June 16, 2008, Applicants, MCEA, NAWO/ILSR and OES filed rebuttal testimony. In particular, Applicants proposed "Upsized Alternatives" for the three transmission projects they had originally proposed. These parties later filed surrebuttal testimony.

From June 17 to July 2, 2008, the ALJ convened 19 public hearings along the anticipated corridors for the three proposed transmission lines, in the cities of Moorhead, Fergus Falls, Alexandria, Melrose, Clearwater, Marshall, Redwood Falls, Arlington, New Prague, Lakeville, Cannon Falls, Winona, and Rochester.

Between July 14 and September 18, 2008, the ALJ convened 25 days of evidentiary hearings. On the final day Applicants filed final rebuttal testimony making minor cost corrections.

On October 24, 2008, Applicants, CETF, Joint Intervenors, MISO, NAWO/ILSR, NoCapX2020, OES and UCAN filed briefs.

On November 23, 2008, NoCapX 2020 asked the ALJ to re-open evidentiary proceedings to receive new evidence about the decline of customer demand for electricity, and to authorize discovery on this issue. NAWO/ILSR supported the motion; Applicants and OES opposed it. On December 10 the ALJ issued an order denying the request but stating that NoCapX 2020 could file an offer of proof for the Commission's benefit attesting to the information NoCapX 2020 would propose to provide if given the opportunity to do so. NoCapX subsequently did so.

On January 23, 2009, NAWO/ILSR, NoCapX2020, MISO, Applicants, CETF, Joint Intervenors, and OES filed reply briefs.

On February 27, 2009, the ALJ issued her Findings of Fact, Conclusions and Recommendation (ALJ's Report).

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<sup>12</sup> An environmental report is required for a Certificate of Need. Minn. Rules, parts 7849.7010 - .7110.

On March 16, 2009, NoCapX2020, NAWO/ILSR, Joint Intervenors, UCAN, CETF, Applicants and OES filed exceptions to the ALJ's Report.

CETF also filed a motion asking the Commission to re-open evidentiary proceedings to receive new evidence about the decline of customer demand for electricity. NAWO/ILSR, NoCapX2020, UCAN and Applicants filed comments on the motion.

On April 10, 2009, NoCapX 2020 asked two commissioners to recuse themselves from deliberating on and deciding matters in this docket, and asked that the Commission consolidate this docket with two other dockets.

The Commission met on April 15 and 16, 2009, to consider these matters. The Commission heard oral arguments from the parties as well as from members of the public. The record closed on April 16.<sup>13</sup>

## **FINDINGS AND CONCLUSIONS**

### **I. LEGAL BACKGROUND**

Anyone seeking to build a transmission line that crosses into Minnesota with a capacity exceeding 100 kV,<sup>14</sup> or more than 1500 feet of transmission line within Minnesota with a capacity exceeding 200 kV,<sup>15</sup> must first obtain a Certificate of Need from this Commission.<sup>16</sup> Because the proposed 345 kV lines cross state lines and exceed these thresholds, Applicants must obtain Certificates of Need before proceeding.

While many statutes potentially bear on this matter,<sup>17</sup> Minn. Stat. § 216B.243 lists the principal

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<sup>13</sup> Minn. Stat. § 14.61, subd. 2.

<sup>14</sup> Minn. Stat. § 216B.2421, subd. 2(3).

<sup>15</sup> Minn. Stat. § 216B.2421, subd. 2(2).

<sup>16</sup> Minn. Stat. § 216B.243.

<sup>17</sup> See, for example, Minn. Stat. §§ 216B.1612, subd. 5; 216B.1691; 216B.1694, subd. 2(a); 216B.2401; 216B.2422, subd. 4; 216B.2425; 216B.2426; and 216C.05 - .30.

Minn. Stat. § 216B.243, subd. 3(10) requires an applicant to demonstrate compliance with § 216B.2425, subd. 7, which requires a utility to identify the transmission upgrades necessary to permit the RES to be fulfilled. In the 2007 Biennial Transmission Projects Report Applicants fulfilled this requirement, designating the Fargo and Brookings Projects as necessary for this purpose.

factors the Commission must consider when determining whether a transmission line is needed. In particular, it bars the Commission from granting a Certificate unless applicants can demonstrate that the demand for electricity cannot be met more cost-effectively through conservation or load management, and is otherwise needed. Minn Stat. § 216B.243, subd. 3.

Many of this statute's requirements are incorporated into Minn. Rules, part 7849.0120, which requires the Commission to consider the following factors:

A. the probable result of denial would be an adverse effect upon the future adequacy, reliability, or efficiency of energy supply to the applicant, to the applicant's customers, or to the people of Minnesota and neighboring states, considering:

- (1) the accuracy of the applicant's forecast of demand for the type of energy that would be supplied by the proposed facility;
- (2) the effects of the applicant's existing or expected conservation programs and state and federal conservation programs;
- (3) the effects of promotional practices of the applicant that may have given rise to the increase in the energy demand, particularly promotional practices which have occurred since 1974;
- (4) the ability of current facilities and planned facilities not requiring certificates of need to meet the future demand; and
- (5) the effect of the proposed facility, or a suitable modification thereof, in making efficient use of resources;

B. a more reasonable and prudent alternative to the proposed facility has not been demonstrated by a preponderance of the evidence on the record, considering:

- (1) the appropriateness of the size, the type, and the timing of the proposed facility compared to those of reasonable alternatives;
- (2) the cost of the proposed facility and the cost of energy to be supplied by the proposed facility compared to the costs of reasonable alternatives and the cost of energy that would be supplied by reasonable alternatives;
- (3) the effects of the proposed facility upon the natural and socioeconomic environments compared to the effects of reasonable alternatives; and
- (4) the expected reliability of the proposed facility compared to the expected reliability of reasonable alternatives;

C. by a preponderance of the evidence on the record, the proposed facility, or a

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Minn. Stat. §§ 216B.1694, subd. 2(a)(5) and 216B.243, subd. 3(12) pertain to applicants that are planning to build generators using non-renewable sources of energy. Similarly, Minn. Stat. §§ 216B.2422, subd. 4, 216B.243, subd. 3a, and 216H.03, subd. 3 pertain to transmission lines being built to transmit electricity generated from non-renewable sources. Because Applicants are building transmission facilities independent of any specific generator, these statutes do not apply. ALJ's Report, Findings 474 - 479.

suitable modification of the facility, will provide benefits to society in a manner compatible with protecting the natural and socioeconomic environments, including human health, considering:

- (1) the relationship of the proposed facility, or a suitable modification thereof, to overall state energy needs;
- (2) the effects of the proposed facility, or a suitable modification thereof, upon the natural and socioeconomic environments compared to the effects of not building the facility;
- (3) the effects of the proposed facility, or a suitable modification thereof, in inducing future development; and
- (4) the socially beneficial uses of the output of the proposed facility, or a suitable modification thereof, including its uses to protect or enhance environmental quality; and

D. the record does not demonstrate that the design, construction, or operation of the proposed facility, or a suitable modification of the facility, will fail to comply with relevant policies, rules, and regulations of other state and federal agencies and local governments.

As noted in part 7849.0120(A), an applicant demonstrates need for a proposed facility by, among other things, forecasting the amount of electricity customers will demand. But the Legislature has adopted policies designed to influence how a utility meets its customers' demands. In particular –

- The Renewable Energy Standard (RES) provides for Minnesota utilities to acquire an ever-growing share of their electricity from renewable sources, eventually reaching a 25% share by the year 2025.<sup>18</sup> The Legislature encourages utilities to acquire some or all of this energy from small, locally-owned generators using renewable energy sources, called Community-Based Energy Developments (C-BED).<sup>19</sup>
- In addition, the Legislature provides for utilities to adopt conservation programs designed to displace 1.5% of the energy their customers would otherwise use.<sup>20</sup>

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<sup>18</sup> Minn. Stat. § 216B.1691. Note that the RES provides for Xcel to acquire 30% of the energy to serve its retail customers from renewable sources by 2020.

<sup>19</sup> Minn. Stat. § 216B.1612, subd. 5.

<sup>20</sup> Minn. Stat. §§ 216B.2401, 216B.241.

However, the Legislature provides for a utility to seek to delay or vary the requirements of these laws if implementation would prove to be impossible or unduly expensive.<sup>21</sup>

In evaluating an application for a Certificate of Need, the Commission receives assistance from other state agencies. Where material facts are in dispute, for example, the Commission refers cases to the Office of Administrative Hearings to conduct a contested case proceeding.<sup>22</sup> And Minn. Rules Chap. 7849 provides for the Department to file an environmental review.

Ultimately, the Commission acts on an application for a Certificate of Need application by approving it, approving it with conditions, or rejecting it.<sup>23</sup>

## **II. PRELIMINARY MATTERS**

### **A. Recusal**

NoCapX 2020 ask Commissioners Pugh and Reha to recuse themselves from this matter due to their prior activities. NoCapX 2020 alleges that Commissioner Pugh's participation in the Organization of MISO States (OMS) creates an appearance of impropriety here, given that MISO is one of the entities advocating for the proposed projects. And NoCapX 2020 alleges that Commissioner Reha's remarks at a conference in 2006 creates an appearance of impropriety as well.

Commissioner Pugh serves on OMS, an organization of state utility regulators that monitor MISO. The OMS operates independent of regulated utilities. (Regulated utilities have their own board for monitoring MISO.) Moreover, Commissioner Pugh notes that he does not serve on the OMS Advisory Board, and consequently is not in a position to influence MISO's action even indirectly. The Commissioner states that he had no role in MISO's choice to intervene in the current proceedings or in the positions MISO has taken on the issues. Similarly, because participation in OMS is voluntary and uncompensated, neither OMS nor MISO was in a position to exercise undue influence over OMS members. The Commission has previously concluded that membership in OMS does not create any conflicts of interest or appearances of impropriety.<sup>24</sup>

In February 2006, roughly a year and a half before Applicants filed their application in this matter, Commissioner Reha was invited to speak at the "National Electricity Delivery Forum" in Washington, DC, a gathering sponsored by the United States Department of Energy, the National Association of Regulatory Utility Commissioners, and the Consumer Energy Council of America.

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<sup>21</sup> Minn. Stat. §§ 216B.1612, subd. 5(2a), 216B.2401, 216B.241.

<sup>22</sup> Minn. Rules, part 7829.1000.

<sup>23</sup> Minn Stat. §§ 216B.243, subd. 5; 216E.03, subd. 10(b).

<sup>24</sup> See the January 11, 2006 legal memorandum in Docket No. E-999/TL-03-1752, *In the Matter of the Minnesota Transmission Owner's Biennial Transmission Projects Report*.



During a panel discussion on the topic “Enhancing the Nation’s Electricity Delivery System Part I – Transmission System Needs,” she spoke about the challenges faced by transmission planners given the growing separation between the entities generating electricity and those transmitting it. In this context, she informed people about the unusual degree of planning coordination among electric utilities that was giving rise to the anticipated CapX 2020 projects in her home state of Minnesota. Her remarks did not address the merits of the projects or indicate that she has prejudged this matter.

Because the Commissioners’ conduct neither violated any legal principles nor created any appearance of impropriety, the Commissioners declined NoCapX 2020’s request for recusal.

## **B. Docket Consolidation**

NoCapX 2020 also asks the Commission to merge the current docket with Docket No. ET-2/CN-06-857, *In the Matter of the Application of Great River Energy and Others for a Certificate of Need for the CapX Brookings, S.D. -- Southeast Twin Cities 345-kV Transmission Project*, and Docket No. E-002/CN-06-979, *In the Matter of the Application of Northern States Power Company (d/b/a Xcel Energy) and Others for a Certificate of Need for the CapX Twin Cities-Rochester-La Crosse 345-kV Transmission Project*. These were two of the original three dockets in which Applicants stated their intentions to pursue Certificates of Need for the projects discussed herein.

The third docket, *In the Matter of the Application of Northern States Power Company (d/b/a Xcel Energy) and Others for a Certificate of Need for the CapX Fargo-Alexandria-St. Cloud-Monticello 345-kV Transmission Project*, was transformed into the current docket on November 3, 2006. On that date the Commission issued an order directing Applicants to address in the current docket all of the 345 kV Group 1 projects that Applicants would include in their application for Certificates of Need.<sup>25</sup> Since then, parties have made all their filings regarding all three 345 kV projects in the current docket.

However, the Commission’s action did not cause the initial documents filed in each of the two earlier dockets to become part of the current record. NoCapX 2020 had twice asked the ALJ to consolidate the three dockets. But NoCapX 2020 failed to articulate what use any party might make of these old documents, and no other party has seen fit to join in NoCapX 2020’s motion. Consequently the ALJ declined to act on it.

NoCapX 2020 again renews its request to merge the dockets, Yet again NoCapX 2020 neglects to identify what use it hopes to make of the old filings, and the Commission can identify no such purpose. Absent such a showing, the Commission finds insufficient reason to grant the request to consolidate. The motion will be denied.

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<sup>25</sup> ORDER APPROVING NOTICE PLANS AND REQUIRING COMPLIANCE FILINGS (November 3, 2006), this docket.

### **C. Re-Opening and Supplementing the Record**

CETF, NAWO/IWLA, NoCapX 2020 and UCAN argue that newly-available information shows that over the past two years customers have demanded less power than forecast – and even less than in prior years – and the utilities are now canceling plans for new generators. UCAN cites Xcel for the proposition that the current recession will dampen customer demand for two years.

CETF argues that incorporating this new evidence into Applicants' forecasts would produce a demand forecast for 2020 that would be less than the lowest amount considered in the 2020 Vision Study forecasts which provide the engineering basis for the proposed projects. This analysis, CETF argues, undermines Applicants' rationale for the proposed projects as well as the foundation for the ALJ's Report. On this basis, these parties ask the Commission to re-open evidentiary proceedings to receive evidence documenting these assertions, addressing the recent economic contraction in general, and indicating how this new information should influence the forecast of regional demand.

Applicants and OES oppose this proposal. Both Applicants<sup>26</sup> and OES<sup>27</sup> have testified to the relationship between the current recession and the need for the proposed projects. In particular, Applicants attest that the proposed facilities would be warranted by a regional demand growth of a mere 2000 MW by 2020.<sup>28</sup>

Applicants note that the parties have already argued that the recession requires Applicants to revise their demand forecasts, and the ALJ has already addressed these concerns. The ALJ found that "reopening the record to analyze short-term consumption will not materially affect the longer term projection," and a "short-term drop in consumption will have little impact on the longer range forecasting of peak demand developed for the certificate of need proceeding."<sup>29</sup>

OES notes that the drop in demand cited by CETF, NAWO/IWLA, NoCapX 2020 and UCAN does not reflect the consequences of the current recession alone. Rather, demand started lagging forecasts before the economy slowed due to abnormally cool weather. Yet no party has presented evidence suggesting that recent cool weather is the start of a long-term trend; this illustrates the

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<sup>26</sup> See 4 Transcript 18, 68-70 (Lacey noting that forecasters take the state of the economy into account to avoid over- or under-estimating); 15 Transcript 119 - 121, 138, and ALJ's Report, Finding 159 (Alters addressing relevance of the current recession to the forecast); 2 Transcript 19-22, 3 Transcript 83-85 (Rogelstad discussing relationship between demand change and the need for the proposed projects).

<sup>27</sup> 23 Transcript 71-73, 126-128 (Ham discussing recession's effect on forecasting.)

<sup>28</sup> See 3 Transcript 83-85 (Rogelstad).

<sup>29</sup> Order Denying Motion for Limited Discovery and to Reopen Hearing (December 10, 2008) at 2; see also ALJ's Report, Findings 185 - 200.

problem with changing long-term forecasts to reflect short-term fluctuations, OES argues.

In addition, OES cautions against drawing conclusions from a utility's decision to build or cancel a power plant. Rather, OES argues that utilities make choices to build or cancel power plants in a dynamic context of supply and demand – a context that is influenced by, among other things, the Commission's actions in this and other dockets authorizing new facilities. When the transmission grid has no more capacity to import cheap power, a utility may find it cost-effective to build its own generator. If subsequent events cause that utility to anticipate gaining access to a new source of inexpensive power – either a new generator, or a new transmission line providing greater access to an existing generator – then the utility's plans to build its own generator may no longer appear cost-effective.

The new type of forecast requested by the parties would be far from unbiased, OES argues. They propose to use current levels of demand – selected from a period of uncharacteristically low demand – and then estimate growth of that demand using uncharacteristically low growth. The purpose of an unbiased forecast, however, is to enable utilities to anticipate the growth in the rate of highest (“peak”) demand, and to design their systems with sufficient capacity to meet that demand. OES argues that the proposed revisions to the forecast would render it unusable.

Finally, Applicants emphasize that they proposed the three 345 kV projects in this docket to address three kinds of need: regional reliability, community reliability and generation outlet. Assuming there were defects in the overall demand forecast, this would affect only the ALJ's conclusions regarding the degree to which the proposed facilities are needed to maintain regional reliability. But this would not undermine the ALJ's conclusions regarding the need for the proposed facilities to maintain community reliability or to provide generation outlet.

The Commission finds the arguments of the ALJs, Applicants and OES to be persuasive. There will always be deviations between forecasts and actual events. The most parties can hope for is that a forecast does not contain any systemic bias, and will therefore provide a fair estimate of a future condition based on the then-available evidence. Here parties have alleged grounds for showing a deviation, but they have not alleged grounds for showing a systemic bias.

The fact that demand is less than forecast reflects a variety of factors, including both the current recession and abnormally cold weather. In evaluating the demand for facilities that are expected to last decades, however, the Commission must focus not on current levels of demand – reflecting fluctuations in the economy and weather – but rather on long-term trends.<sup>30</sup>

Moreover, assuming shorter-term data were relevant to the longer-term forecasts, none of the parties seeking to re-open the evidentiary record has stated what evidence it would provide regarding the anticipated duration of the current recession, or the resumption of normal weather patterns. Absent reliable new evidence on these questions, it is unclear what purpose a new evidentiary proceeding would serve.

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<sup>30</sup> See ALJ's Report, Findings 270, 318.

For the foregoing reasons, the motions to re-open and supplement the record will be denied.

### III. Proposed Projects

Briefly, Applicants have sought to anticipate how the region's transmission grid must change by the year 2020 to meet three kinds of need:

- **Regional reliability.** Applicants conducted a study (the CapX 2020 Vision Plan) forecasting the amount of system-wide growth the region would experience by 2020, and concluding that the region would experience transmission overloads, outages, and voltage problems unless new capacity were added. They then considered which arrangement of transmission facilities could best accommodate this growth under six different scenarios. This process provided the foundations for the La Crosse and Fargo Projects.
- **Community reliability.** Beyond concerns about growing demand, Applicants considered problems related to interruptions of supply. Applicants identified areas where the failure of a single transmission line could jeopardize service reliability. These needs provide additional justification for the La Crosse and Fargo Projects, although Applicants claim that the Brookings Project would also help reinforce the transmission grid along its path. In particular, Applicants note that the final two segments of the Brookings Project may form the start of a new 345 kV transmission ring around the Twin Cities.<sup>31</sup>
- **Generation outlet.** By 2020 the region will require additional sources of electricity. Given a number of factors – including the fact that the Minnesota Legislature directs Minnesota utilities to acquire specified percentages of their energy from renewable sources – Applicants are that they will need additional transmission capacity in the wind-rich regions of Minnesota and the Dakotas. The Brookings Project, and the Fargo Project to a lesser extent, are designed to address this need.

To address these deficits, Applicants propose to build three 345 kV transmission line projects: the Fargo Project, the Brookings Project, and the La Crosse Project. Applicants have proposed various routes by which the La Crosse Project might cross the Mississippi – including a crossing near Alma, and some crossings further south. Applicants also proposed an “Upsized Alternative” for each project; this alternative would not differ from the route of the original proposal, but would include placing the transmission lines on larger towers to facilitate adding capacity in the future.

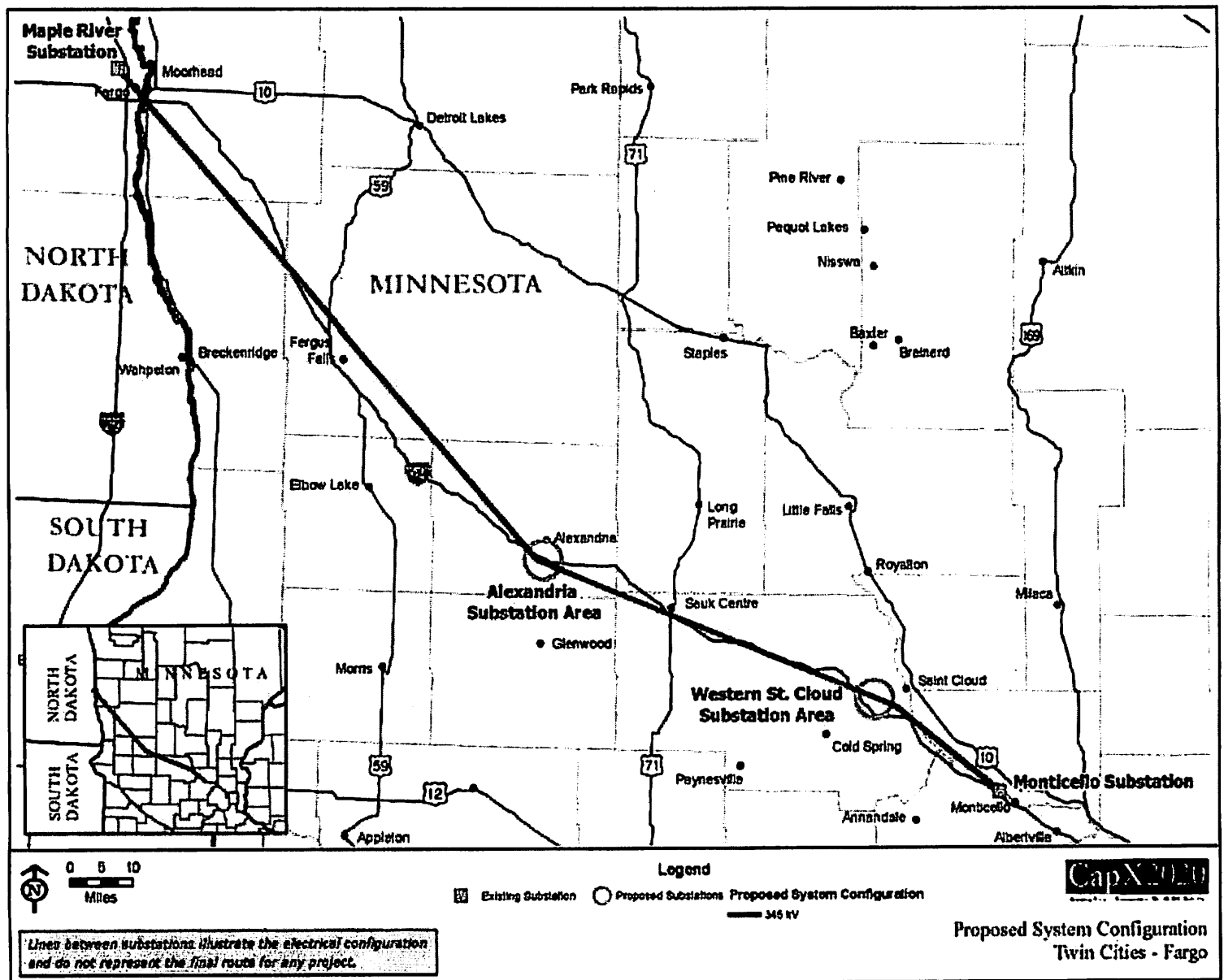
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<sup>31</sup> Exh. 1 (Application) at 3.28, n. 14; 3.31; Exh. 121 (Grivna Rebutta) at 39.

## A. The Fargo Project<sup>32</sup>

Applicants designed the Fargo Project primarily to bolster regional reliability, and especially reliability in southern Red River Valley, Alexandria and St. Cloud. This project entails a series of 345 kV transmission line segments between Monticello, St. Cloud, Alexandria, and Fargo, North Dakota, extending 210 to 270 miles depending on the route selected.

This transmission line would begin at the Monticello substation at the Monticello Power Plant and extend northwest 30 to 40 miles to a new substation, Quarry substation, on the western side of St. Cloud. This segment would connect with the existing 115 kV transmission system serving the St. Cloud area.



From the Quarry substation, the transmission line's second segment would extend 60 to 80 miles

<sup>32</sup> The attached maps come from Exh. 1 (Application), Chap. 2: Project Descriptions.

northwest to a new or existing substation near Alexandria. This segment would connect with the existing 115 kV transmission system serving west central Minnesota, including the City of Alexandria.

From Alexandria, the third segment would extend 120 to 150 miles northwest to a substation near Fargo, North Dakota. While Applicants initially proposed ending the line at the Maple River substation, they now ask the Commission to defer designating an end point to permit better coordination with the routes approved by the North Dakota Public Service Commission.

Both the original and the Upsized Alternative Fargo Project involve installing a 345 kV line along the entire route. But the Upsized Alternative involves building structures that could accommodate two 345 kV lines (“double circuits” or “345 kV/345 kV”), leaving room to address future demand growth.

Applicants estimate the Fargo Project as proposed would cost between \$390 million and \$560 million, depending on factors such as timing and route selection. The Upsized Alternative would cost between \$500 million to \$640 million. Applicants propose to make the lines operational sometime between 2011 and 2015.

In designing their proposal, Applicants considered various system configuration alternatives. Applicants could find no means of ensuring reliable service in the southern Red River Valley, Alexandria, and St. Cloud without additional transmission lines. Applicants also considered higher voltage and lower voltage lines, upgrading or double-circuiting, and using generation as an alternative to transmission. In particular, they found the lower-voltage option too expensive because nine 115 kV lines are needed to provide capacity comparable to the 345 kV line.

## **B. The Brookings Project**

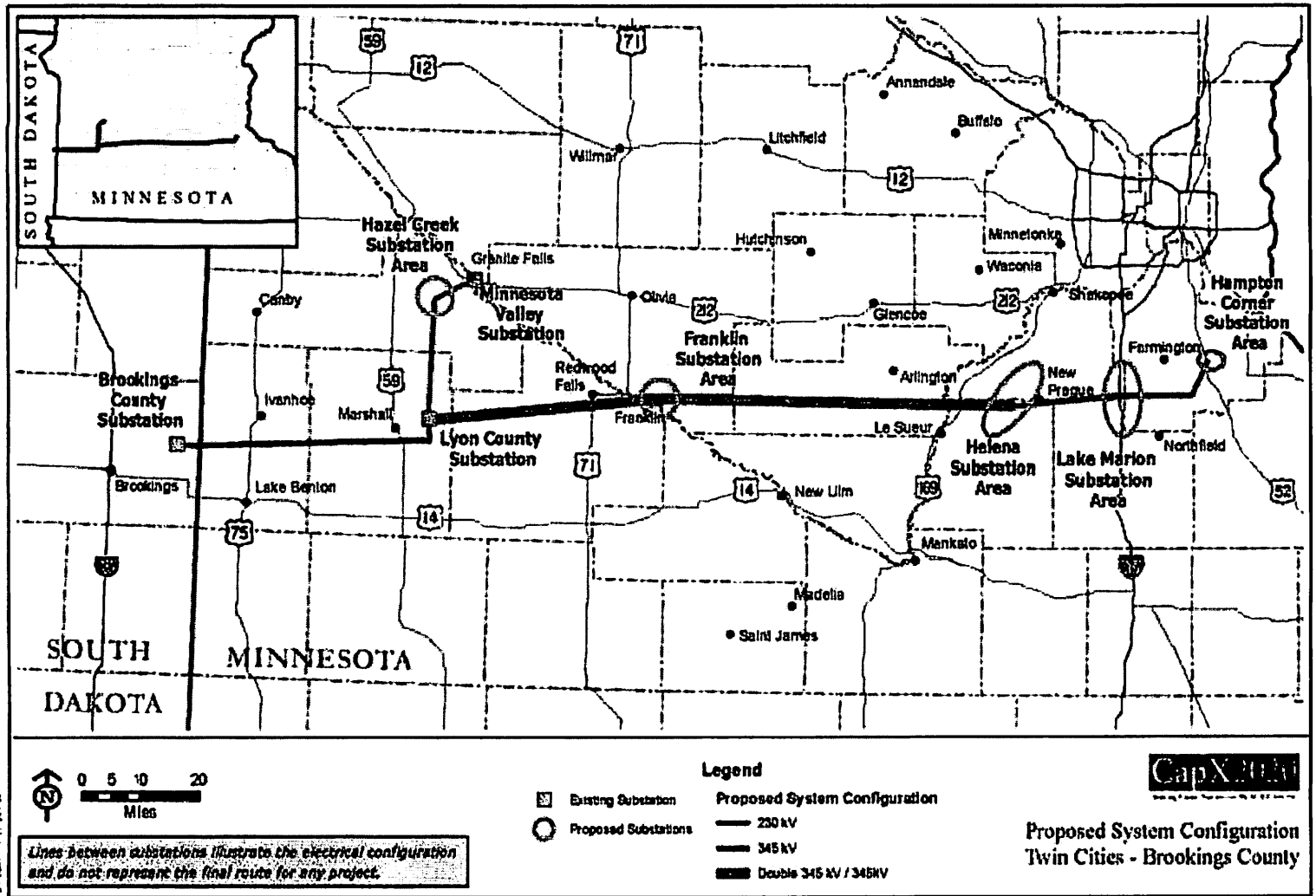
Applicants designed the Brookings Project primarily to enable an additional 700 MW of electricity generated in the wind-rich Buffalo Ridge area to reach customers in the Twin Cities. This project entails a series of 345 kV segments that stretch from the Brookings County substation in South Dakota to a new substation in the southeast corner of the Twin Cities. The project would stretch from 165 to 200 miles, depending on the route selected.

Beginning at the Brookings County substation, the transmission line’s first segment would extend 50 to 55 miles to the Lyon County substation near Marshall.

Here the transmission line splits, branching both north and east. From Lyon County, one segment would extend 25 miles north to the Hazel Creek substation just southwest of Granite Falls. This 345 kV segment would replace an existing 115 kV circuit and would connect with existing transmission lines at the Hazel Creek substation. One of the recently-authorized transmission

lines extending from the Big Stone coal-fired generator<sup>33</sup> would also connect at the Hazel Creek substation. This substation would provide voltage support in the western part of the state as more wind farms are developed.

From Hazel Creek, the line would continue for eight to ten miles northeast to the Minnesota Valley substation, again replacing an existing 115 kV circuit. Applicants would construct this segment to 345 kV line standards, but operate it at 230 kV until the other facilities in the area were upgraded.



<sup>33</sup> See *In the Matter of the Application of Otter Tail Power Company and Others for Certification of Transmission Facilities in Western Minnesota*, Docket No. ET-6131, ET-2, ET-6130, ET-10, ET-6444, E-017, ET-9/CN-05-619.

Returning to the Lyon County substation, the Brookings Project's other branch would extend a double-circuit 345 kV line 45 miles east to either the Franklin substation or a new substation in that area.

The final three segments of this project would connect with three substations in the southern part of the Twin Cities area, permitting the electricity flowing on the Brookings Project to be dispersed evenly via lines connected to those substations. First comes another double-circuit segment that would extend 45 miles to the new Helena substation in the vicinity of New Prague. The Helena substation would connect to the Blue Lake–Wilmarth 345 kV line, serving the southwestern Twin Cities. From Helena, the next segment would extend 20 to 30 miles east to the I-35 freeway corridor and Lakeville, where the Lake Marion substation connects to a 115 kV line serving the southern suburbs. And from Lake Marion, the final segment would extend east 25 miles to a proposed new substation at Hampton Corner. This substation would connect with the Prairie Island - Blue Lake 345 kV transmission line serving the southeastern metropolitan area.

Both the original proposal and the Upsized Alternative would build double circuits from Lyon County to Franklin and Franklin to Helena. But the Upsized Alternative would also upgrade the towers all along the route – from Brookings to Lyon County, from Lyon County to Hazel Creek, from Hazel Creek to Minnesota Valley, and from Helena to Lake Marion and Lake Marion to Hampton Corner – to be capable of bearing two 345 kV circuits.

The Brookings Project is estimated to cost \$603.7 to \$669.6 million; the Upsized Alternative would cost \$654 to \$725 million. Applicants propose to complete the segments from Lyon County to Helena by 2012, and the rest by 2013.

Applicants explored various alternatives to the Brookings Project – including use of lower voltage lines and the use of a single line bypassing the Franklin substation – but could identify no means of enhancing generation outlet without building some new transmission lines.

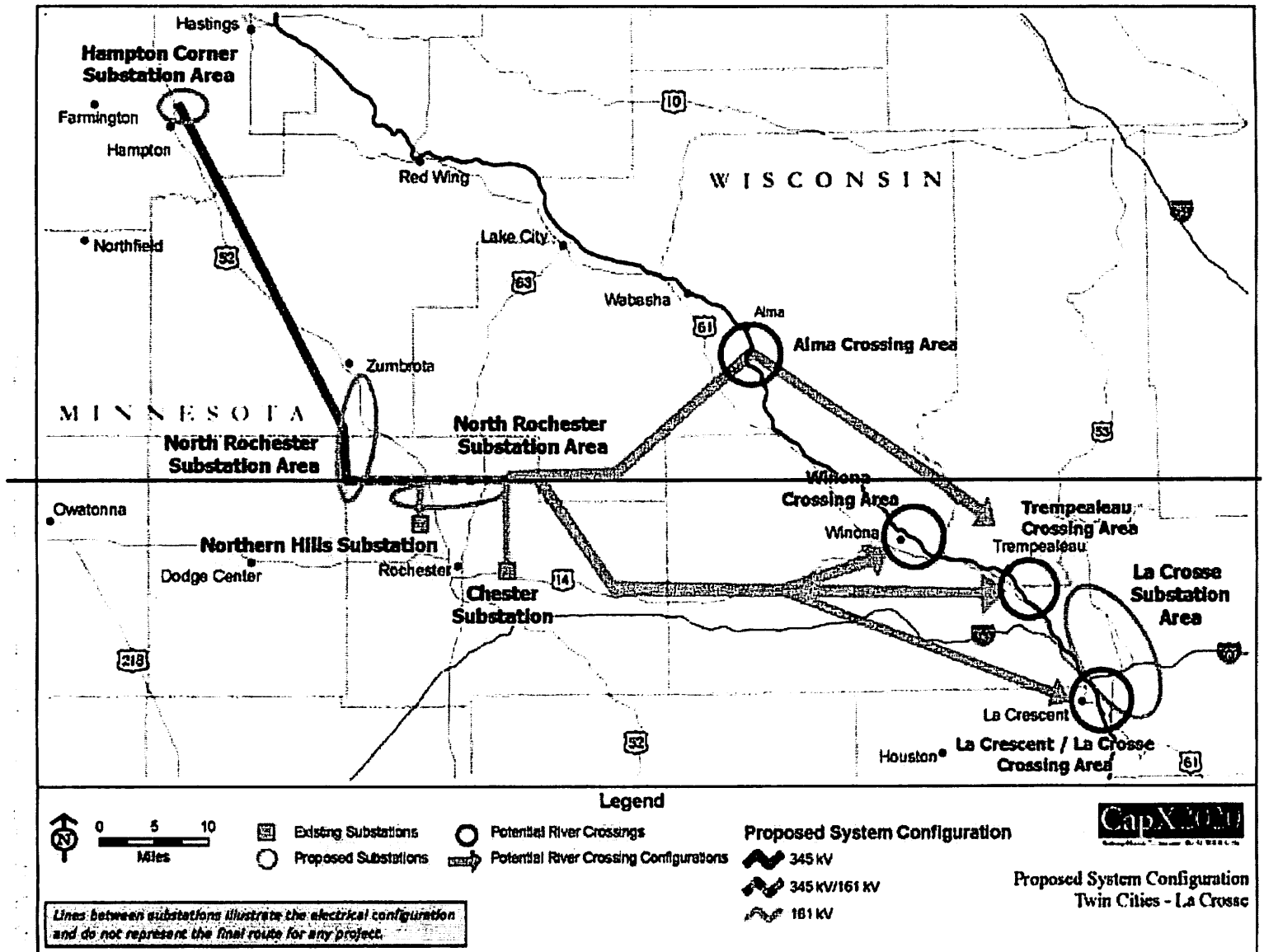
### **C. The La Crosse Project**

Applicants designed the La Crosse Project to bolster regional reliability, and especially reliability in the Rochester and La Crosse/Winona areas. The proposed 345 kV transmission line would extend 85 to 140 miles, depending on the route selected, before crossing the Mississippi River into Wisconsin. As that range suggests, Applicants have identified a variety of different configurations and routes for meeting the regional and local transmission needs.

Beginning at the proposed Hampton Corner substation, discussed above, this project's first segment would extend southeast 40 to 50 miles to interconnect with the Prairie Island–Byron 345 kV line at a new substation, called the North Rochester substation. A 161 kV segment would continue 10 to 15 miles southeast to the Northern Hills substation, also in the Rochester area.



The specifications for the remaining line segments depend upon whether the line would cross the Mississippi River near Alma, Wisconsin, near Winona, Minnesota, or near La Crosse, Wisconsin. The latter two options have enough in common that Applicants often refer to them jointly as the "Southern Crossing," distinguishing them from the Alma Crossing option.



The **Southern Crossing** entails two similar layouts, but with somewhat different points of interconnection. If the project crosses the Mississippi River at Winona, the new 345 kV circuit from North Rochester would extend eastward until it intersected the Alma–North La Crosse 161 kV line in Wisconsin. From that point of intersection, these two lines would then run parallel

southeastward to the North La Crosse substation. On the other hand, if the line from North Rochester crossed the Mississippi further south at La Crescent, it could intersect the Alma-North La Crosse line directly at the La Crosse substation.

As the map indicates, initially Applicants also proposed a fourth alternative crossing at Trempealeau, Wisconsin. No party continues to advocate this option.

Applicants also propose building a 161 kV line extending south from the North Rochester substation to the Chester substation. But if ultimately the 345 kV line were routed sufficiently close to the Chester substation, Applicants ask to preserve the option of routing the 345 kV line directly to Chester in lieu of building the 161 kV line.

The Upsized Alternative would build the entire 345 kV route from Hampton Center to the La Crosse area on towers capable of bearing two 345 kV lines, thereby providing for greater expansion.

The **Alma Crossing**, alternatively, can be understood as forming a triangle. Across the top, a single 345 kV circuit on double-circuit towers would extend from North Rochester eastward about 40 miles to Alma. Applicants would replace a portion of the existing Rochester–Alma 161 kV line with a new 345 kV/161 kV double circuit line routed through Olmsted and Wabasha Counties. A second side of the triangle would be formed by a 161 kV circuit extending south from North Rochester to Chester, just as in the Southern Crossing. Then an existing 161 kV line would extend northeastward from Chester to Alma, completing the triangle. Hanging off the easternmost point of the triangle, the 345 kV line would then extend southeastward from Alma to a La Crosse area substation.

In the Upsized Alternative, the single 345 kV circuit from Hampton Corner to North Rochester would be placed on towers capable of bearing two 345 kV lines. Also, the proposed 345 kV line/161 kV line from North Rochester to Alma would be built as a 345 kV/345 kV double-circuit line; the second circuit would be operated at 161 kV until circumstances would warrant increasing in the voltage.

Applicants estimated that the La Crosse Project would cost between \$355 to \$363 million for the Southern Crossing and between \$364 and \$374 million for the Alma Crossing. The Upsized Alternative would cost between \$407 to \$432 million for the Southern Crossing and between \$389 to \$415 million for the Alma Crossing. Again, the estimates vary with the route selected, as well as the timing of construction, availability of construction crews and components.

Applicants explored a variety of alternatives for enhancing reliability in the area to be served by the La Crosse Project. These included alternative transmission projects – higher and lower voltage lines, or extending a double-circuit line from the Twin Cities to La Crosse – as well as alternatives that did not rely on new transmission – generation, conservation, and efficiency. Applicants concluded that the La Crosse Project provided the maximum benefits for the minimum price. For example, while a lower-voltage transmission line is less expensive than a 345 kV line, Applicants would need to build so many of them to substitute for a 345 kV line that this

alternative would prove to be more expensive. And while “reconductoring” existing transmission lines could improve reliability in Rochester, Applicants estimate that the grid would still require upgrades within the next six years.

Applicants would not anticipate completing the La Crosse Project before 2015, but would hope to complete the Northern Hills–North Rochester 161 kV line by the third quarter of 2011, or perhaps by 2012, depending on developments in another transmission line case, the Rochester Incremental Generation Outlet (RIGO) Project.<sup>34</sup> OES suggests that the Commission authorize the earlier date in this docket, subject to modification in the context of the RIGO case.

#### **D. Miscellaneous Upgrades**

A new transmission line will have consequences for the rest of the grid with which it interconnects. Using computer models, Applicants have identified a number of lower voltage circuits that might get overloaded if and when the 345 kV Group 1 projects begin operating. Applicants estimate the cost of making the needed upgrades throughout the transmission system at \$70 million to \$100 million.

#### **IV. Report of the Administrative Law Judge**

On the basis of the entire record, the ALJ first concluded that the OES’s Environmental Report fulfills all legal requirements and appropriately addresses the issues set forth in the Scoping Decision.

Then, after a thorough review of the record, the ALJ concluded that Applicants satisfied the relevant statutory and regulatory criteria for Certificates of Need. In particular, the ALJ cited the Joint Intervenors, among others, in rejecting the suggestion that the Applicants proposed the projects simply to have a means for transmitting power from the Dakotas to states east of Minnesota.

The ALJ recommended approving the following projects:

- The Fargo Project: The ALJ recommended approving the Upsized Alternative. But the ALJ also recommended deferring designating the project’s northern termination point until the routing proceeding, and then coordinating this decision with the North Dakota Public Service Commission.

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<sup>34</sup> See *In the Matter of the Application of Northern States Power Company d/b/a Xcel Energy for a Certificate of Need for Two 161 kV Transmission Lines in the Greater Rochester Area*, Docket No. E-002/CN-08-992.

- The Brookings Project: The ALJ recommended approving the Upsized Alternative, but found the record insufficient to determine whether to locate the line's eastern terminus at the Lake Marion substation or the proposed Hampton Corner substation.
- The La Crosse Project: The ALJ recommended approving this project as proposed – but not the Upsized Alternative. In other respects, the ALJ recommended approving the project as Applicants requested, including leaving many matters to be resolved later. For example, the ALJ recommended deferring selection of the river crossing location and all the contingent decisions to a docket designed to select the project's route. Similarly, the ALJ concluded that Applicants had successfully demonstrated a need for at least a 161 kV line between the North Rochester and Chester substations, but acknowledged that the routing proceeding may reveal that Applicants should simply build their 345 kV line along that route instead. The ALJ found that Applicants had successfully demonstrated a need to make the Northern Hills-North Rochester 161 kV line operational in the third quarter of 2011, but acknowledged that developments in the RIGO case could justify revising this date.

Finally, the ALJ found insufficient grounds for imposing conditions on the grant of Certificates requiring Applicants to reserve the amount of capacity created by the new lines for the purpose of transmitting energy from renewable sources.

## **V. Positions of the Parties**

In response to the ALJ's Report, the parties propose various courses of action.

### **A. Applicants**

Applicants generally support the ALJ's recommendations, with two exceptions. First, they argue that the record leaves no doubt that the Brookings Project should not terminate at the Lake Marion substation, but rather should extend eastward to the Hampton Corner substation as they had proposed. Logically, Applicants argue that the record contains no analysis of the consequences of terminating the Brookings Project at the Lake Marion substation; thus any finding that the Brookings Project warrants a Certificate of Need must refer to the Brookings Project extending to the Hampton Corner substation. Procedurally, Applicants argue that the idea to build a Brookings-type Project that terminates at the Lake Marion substation would represent an alternative proposal, and no such proposal was offered within the appropriate timeframe. And factually, Applicants argue that the record demonstrates the merits of extending the Brookings Project to the proposed Hampton Corner substation.

Second, Applicants argue that the record – and a general principle of prudence – support the adoption of the Upsized Alternatives for each proposal, including the La Crosse Proposal, ensuring that the transmission line structures have room for future expansion.

## **B. OES**

OES largely supports the ALJ's findings, conclusions and recommendations. In particular, OES supports the ALJ's conclusion that the Certificates of Need should not be made subject to conditions designed to reserve transmission capacity for renewable sources of energy.

However, OES joins the Applicants in advocating for designating the Hampton Corner substation as the eastern terminus of the Brookings Project.

## **C. Joint Intervenor**

The Joint Intervenor largely agree with the ALJ's analysis and conclusions. However, the Joint Intervenor restate their support for the Upsized Alternatives of each of the projects, including the La Crosse Project. The Joint Intervenor also clarify that they take no position on the question of whether the CapX 2020 facilities would function as a conduit for transmitting electricity from the Dakotas to Wisconsin and beyond.

The main point of disagreement, however, pertains to the ALJ's recommendation to grant the Certificates of Need without conditions. The Joint Intervenor argue that conditions are needed to ensure that the new transmission capacity be used to increase reliance on renewable sources of energy. The Joint Intervenor propose conditions modeled on a similar provision the Commission adopted in a prior case seeking to demonstrate the need for 825 MW of transmission capacity for generation outlet (*825 MW Proceeding*).<sup>35</sup> The ALJ stated that the proposed facilities are needed, in part, to facilitate the growth of renewable sources of energy. But the Joint Intervenor warn that the proposed facilities may not fulfill this role – and therefore the projects would not qualify for Certificates of Need – unless the necessary conditions are established and enforced.

Finally, the ALJ acknowledged the difficulty parties encountered when analyzing the data and assumptions incorporated into Applicants' models.<sup>36</sup> The Joint Intervenor recommend that the Commission address this problem by directing utilities to establish a consistent audit trail procedure to allow parties to make a careful review of inputs and analysis in the future.

## **D. MISO**

MISO continues to support approval of the Upsized Alternatives, stating that installing larger transmission towers is becoming a standard practice in some areas.

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<sup>35</sup> See *In the Matter of Northern States Power Company d/b/a Xcel Energy for Certificates of Need for Four Large High Voltage Transmission Line Projects in Southwestern Minnesota*, Docket No. E-002/CN-01-1958 (*825 MW Proceeding*).

<sup>36</sup> ALJ's Report, Finding 199.

MISO expresses reservations about the Joint Intervenors' proposed conditions. To the extent that such conditions would be imposed on *facilities*, as opposed to *utilities*, MISO argues that they may conflict with MISO's federally-regulated tariffs, and especially the revised MISO Queue process.

#### **E. CETF**

In its exceptions to the ALJ's Report, CETF reasserts the arguments it made before the ALJ. In general, CETF finds fault with the ALJ's analysis of Applicants' rationales for the proposed 345 kV projects, arguing that a more rigorous analysis of the alleged need for regional reliability, community reliability and generation outlet would lead to different conclusions.

First, CETF argues that Applicants have failed to demonstrate that the three proposed 345 kV lines are needed for regional reliability, citing the low levels customer demand CETF noted in its petition to re-open the hearing, above.

CETF argues that the La Crosse project is not needed, and that the only needed segment of the Fargo Project extends from Monticello to St. Cloud. CETF concludes that the Brookings Project cannot be justified except potentially for its capacity to provide an outlet for renewable sources of energy. Consequently if the Commission were to grant a Certificate of Need for a project opening 700 MW of new transmission capacity, CETF would advocate adopting conditions reserving 700 MW of transmission capacity for renewable energy. However, CETF embraces the ALJ's decision not to identify an easternmost terminus for the Brookings Project. CETF recommends resolving that matter in the routing case, thereby providing local units of government greater opportunity to participate.

Finally, CETF opposes the ALJ's recommendation to adopt some Upsized Alternatives, arguing that the record does not demonstrate that such alternatives are needed.

#### **F. NAWO/ILSR**

In exceptions to the ALJ's Report, NAWO/ILSR re-asserts the arguments they presented before the ALJ. NAWO/ILSR cautions the Commission not to make the proposed large investment in an outmoded model of the electric industry just as a new model is emerging. On the theory that the economies enjoyed by large power plants are declining while the economies of scale enjoyed by the producers of wind turbines are rising, NAWO/ILSR argue that small, distributed generators operating close to customers, connected to a "Smart Grid," will make more efficient use of available facilities. This will largely obviate the need for the proposed transmission projects, at least within the 2020 planning horizon. According to NAWO/ILSR, any remaining capital additions – transmission or generation – could be provided in a smaller, more targeted fashion.

## **G. NoCapX 2020**

NoCapX 2020 also reasserts the arguments it made before the ALJ. NoCapX 2020 adopts the exceptions proposed by UCAN, as well as some of CETF's arguments.

Like CETF, NoCapX 2020 argues that Applicants' demand forecasts are flawed, and that the current recession has created reason to doubt the validity of those forecasts. Consequently NoCapX 2020 asks the Commission to disregard all of the ALJ's findings related to load growth and forecasting.

In addition, NoCapX 2020 argues that the justification for the Brookings Project did not arise from the list of "common elements" that emerged from the six scenarios explored in the CapX 2020 Vision Study. NoCapX 2020 asks the Commission to disregard the ALJ's conclusions to the contrary.<sup>37</sup>

NoCapX 2020 argues that the record fails to credibly demonstrate a purpose for the Fargo and La Crosse Projects that would justify their expense – except perhaps for the purpose of facilitating bulk power transfers from the Dakotas to Wisconsin and other eastern markets. And NoCapX 2020 also expresses concern about the purpose of the Brookings Project. While Applicants emphasize its role in providing an outlet for renewable sources of electricity, NoCapX 2020 notes that this line would also provide a conduit between a 345 kV transmission line extending from South Dakota's Big Stone coal-fueled generator and the 345 kV La Crosse Project.

Finally, NoCapX 2020 takes exception to the ALJ's conclusion that the Lake Marion substation represents a viable end-point for the Brookings Project. Although opposed to granting any Certificates of Need on the basis of the current record, NoCapX 2020 argues that if the Commission does approve the Brookings Project it should not terminate that 345 kV line at a substation designed to serve 115 kV lines.

## **H. UCAN**

UCAN also restates the arguments it made to the ALJ, generally claiming that the record fails to adequately address whether the needs identified by Applicants can be addressed through local generation, conservation and load management.

UCAN joins the Joint Intervenors and NoCapX 2020 in expressing concern that the new projects' added transmission capacity will be consumed transmitting electricity from the Big Stone generators, and electricity from renewable sources will be displaced.

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<sup>37</sup> See, for example, ALJ's Report, Finding 91.

Echoing the concerns raised by other parties, UCAN disagrees with the ALJ's conclusion that the record is insufficient to justify choosing between terminating the Brookings Project at the Lake Marian substation or the proposed Hampton Corner substation. UCAN argues that the same analyses that support the selection of the Brookings Project in general would also provide support for the selection of the Hampton Corner substation in specific, because that substation is part of the overall Brookings Project.

Finally, UCAN asks the Commission to compel Applicants to determine and disclose the identities of each line's owners, and the percentage interest each owner has.

## **VI. ANALYSIS**

In preparing recommendations for the Commission regarding Applicants' Certificate of Need applications, the Administrative Law Judge presided over 25 days of evidentiary hearings and 19 public hearings. She reviewed the testimony of 25 witnesses and 316 exhibits. She evaluated the initial and reply briefs of eight parties. The ALJ's Report includes 481 findings of fact and 22 conclusions, ultimately supporting three primary recommendations.

Having examined the record and carefully considered the ALJ's Report, the Commission concurs in the ALJ's findings and conclusion, and will therefore accept, adopt and incorporate them herein – with exceptions. In sum, the Commission finds as follows:

- First, the March 31, 2008 Environmental Report adequately addresses the issues raised in the February 18, 2008 Environmental Assessment Scoping Decision.
- Second, the record demonstrates need for each of the proposed project's Upsized Alternative projects. The Certificate of Need for the Brookings Project should be subject to conditions designed to ensure that the amount of capacity the line adds to the transmission grid is available for transmitting electricity generated from renewable sources.
- Third, the Brookings Project should extend to the proposed Hampton Corner substation.
- Fourth, for each project Applicants should disclose the project's transmission capacity, owners, and share of ownership interest.
- Finally, prospectively each utility in this proceeding should establish a consistent audit trail procedure to permit the careful review of inputs and analysis that go into any study that the utility relies on in seeking a Certificate of Need.

The Commission reached these conclusions based on an analysis of the record, applying the criteria for demonstrating need as set forth in Minnesota law, including Minn. Rules, part 7849.0120.



**A. The Probable Result of Denial Would be an Adverse Effect upon the Future Adequacy, Reliability, or Efficiency of Energy Supply to the Applicant, to the Applicant's Customers, or to the People of Minnesota and Neighboring States**

**1. In General**

Under Minn. Rules, part 7849.0120(A), the Commission gauges an applicant's need by considering the consequences of denying the application. In this case Applicants allege three types of need: regional reliability, community reliability and generation outlet.

Regional reliability reflects the disparity between forecasts of customer demand and forecasts of resources to meet that demand. Parties raise various concerns about the Applicants' forecasts and studies. The ALJ found that the Applicants' forecasts – based on Commission-approved resource plans and other sources – were sufficient to demonstrate the need for the proposed projects, but especially the Fargo and La Crosse Projects.<sup>38</sup> As discussed in the context of the motions to re-open the record, the Commission concurs.

Community reliability refers to the potential for problems arising from the failure of a few key components of the electrical system. The ALJ reviewed Applicants' claims about reliability concerns in the vicinity of Rochester, La Crosse, the Red River Valley, Alexandria, St. Cloud, and the southern Minnesota region, and found those concerns to be warranted.<sup>39</sup>

Generation outlet refers to the capacity to permit energy from any given generator to reach customers. The ALJ reviewed the statutorily-created demand for renewable sources of electricity in particular, and found the Brookings Project in particular to be well designed to address this need.<sup>40</sup>

Because a 345 kV line provides as much transmission capacity as multiple lower-voltage lines while also reducing the amount of energy lost in transmission, the ALJ found that the proposed projects would result in more efficient uses of energy and other resources. The ALJ acknowledges NAWO/ILSR's arguments that certain strategies that would not necessarily require a Certificate of Need – increased reliance on distributed renewable generation, and increased transmission efficiencies – could help alleviate the stresses on the existing transmission system temporarily. But none of these strategies ultimately displace the need for the new transmission facilities.

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<sup>38</sup> See generally ALJ's Report, Findings 152 - 200.

<sup>39</sup> *Id.*, Findings 201 - 254.

<sup>40</sup> *Id.*, Findings 255 - 264.

On the basis of the record, the ALJ concluded that withholding the Certificates of Need would probably harm the future adequacy, reliability or efficiency of the energy supply to Applicants, their customers, the people of Minnesota and/or neighboring states. The Commission concurs.

## **2. Bulk power transactions**

NoCapX 2020 and UCAN contend that once Applicants build their proposed projects, they will use them to ship bulk power across Minnesota from the resource-rich states west of Minnesota to large urban centers to the east of Minnesota. Applicants, MISO and OES dispute this assertion. While no witnesses testified in support of NoCapX 2020's and UCAN's theory, MISO and OES witnesses testified that the proposed projects would not provide a practical means of transmitting power across the breadth of Minnesota.<sup>41</sup> The ALJ found these witnesses to be the credible.

The Commission agrees; NoCapX 2020's and UCAN's contentions are not supported in the record. Moreover, their contentions are not inconsistent with a demonstration of need. This Commission considers needs both within the state and in neighboring states in evaluating a Certificate of Need application. And given that Minnesota imports more electricity than it exports,<sup>42</sup> the state clearly benefits from having a robust interstate transmission grid – a grid capable of both importing and exporting power.

## **3. Documentation**

Both the Joint Intervenors and NAWO/ILSR object that the level of review necessary to fully analyze the Applicants' power flow and stability studies requires money and expertise that the intervenors cannot duplicate. The Joint Intervenors argue further that these burdens are needlessly compounded when Applicants are not prepared to make a transparent disclosure of the data and assumptions that they incorporated into their models and studies. The ALJ acknowledged these concerns.<sup>43</sup> While the Joint Intervenors eventually expressed satisfaction with the accuracy of the models and studies in the current docket, they ask the Commission to direct the utilities to establish a consistent audit trail procedure to allow careful review of their inputs and analysis in future Certificate of Need cases.

The Commission finds the Joint Intervenors' proposal to be reasonable and will grant their request. Applicants bear the burden of proof for every proposition supporting their application, and should be organized and forthcoming with the relevant data and assumptions that underlie their claims.

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<sup>41</sup> 5B Transcript at 58 - 64 (Webb); 25 Transcript at 73, 80 (Rakow). The Joint Intervenors clarify, however, that they take no position on this factual question.

<sup>42</sup> In 2006 Minnesota imported about 16% of its electricity. Exh. 1 (Application) at 1.4; Exh. 257 (Ham Direct) at 4 -5; 22 Transcript 169 (Ham); ALJ's Report, Finding 154.

<sup>43</sup> ALJ's Report, Finding 199.

The Commission will therefore direct the utilities in this matter to establish a consistent audit trail procedure to facilitate efficient review of inputs and analysis underlying the models and studies they rely on in future Certificate of Need cases.

**B. A More Reasonable and Prudent Alternative to the Proposed Facility Has Not Been Demonstrated by a Preponderance of the Evidence on the Record**

Under Minn. Rules, part 7849.0120, subp. B, the Commission must consider whether the preponderance of the record evidence reveals a more reasonable and prudent alternative to the facility being sought by a Certificate of Need applicant.

**1. In General**

This aspect of the Certificate of Need analysis often turns on two issues. First, the ALJ considers the state of the evidentiary record. The record reflects contributions from 19 public hearings; the prefiled initial, rebuttal and surrebuttal testimony of experts; and 25 days of evidentiary hearings. Second, the ALJ considers the criteria for evaluating the reasonableness and prudence of an alternative. In other words, the ALJ considers the purpose for which an applicant seeks a Certificate of Need, and the extent to which any proposed alternative would achieve that purpose.

Again, the Applicants have identified three reasons for seeking Certificates of Need: They need to maintain general reliability that is imperiled due to regional growth in demand. They need to maintain reliability within certain specific communities that are threatened by a potential loss of supply. And they need to provide means for acquiring new sources of supply.

The ALJ evaluated the Applicants' initial proposal as well as larger and smaller proposals. The ALJ also considered the relative merits of direct current (DC) rather than alternating current (AC) transmission lines.<sup>44</sup>

The ALJ focused on the question of whether Applicants' anticipated needs could be served through a combination of conservation, load management and efficiency measures, and renewable sources of generation. Again, the ALJ noted that NAWO/ILSR and others presented ideas for meeting some community reliability needs in some regions for some period – ideas such as increasing reliance on Smart Grid technology, and on distributed renewable sources of energy. But the ALJ concluded that no party proposed an actual plan with sufficient detail to permit relevant comparisons.<sup>45</sup> Whatever the merits of these other ideas, the record did not demonstrate that they would function as a substitute for the Applicants' proposals.

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<sup>44</sup> *Id.*, Finding 331.

<sup>45</sup> *Id.*, Findings 332 - 359.

Ultimately the ALJ concluded that the only viable alternatives developed in the record were the original proposals and the Upsized Alternatives.<sup>46</sup> The ALJ gauged the cost of these various projects.<sup>47</sup> The ALJ considered their relative effects on the natural and socioeconomic environment, including the effects of ozone and nitrogen oxide emissions, noise, radio and television interference, electric and magnetic fields, influence on the future development of coal-fired generation, and the economic benefits related to the projects' construction and operation.<sup>48</sup> And the ALJ considered the projects' effect on the grid's reliability.<sup>49</sup>

On the basis of this analysis, the ALJ concluded that the preponderance of the record did not demonstrate a more reasonable and prudent alternative for achieving regional and community reliability, and generation outlet, than the Applicants' proposals.<sup>50</sup> The Commission concurs.

## **2. Upsized Alternatives**

The ALJ recommended that the Commission issue a Certificate of Need for the Upsized Alternatives regarding both the Brookings and Fargo Projects, and to issue a Certificate of Need for the La Crosse Project as proposed without the Upsized Alternative. CETF takes exception to the ALJ's recommendation to approve the Upsized Alternatives. In contrast, Applicants, MCEA, MISO and OES take exception to the ALJ's recommendation to withhold approval of the Upsized Alternative La Crosse Project.

CETF argues that the Upsized Alternatives are inadequately developed in the record, and that the consequence of installing an additional 345 kV circuit in many parts of the grid has not been studied. Applicants concede that the additional circuits have not been subject to load flow studies, capacity analyses, thermal ratings, and the like. But they argue that the Upsized Alternative involves merely building transmission towers capable of supporting two 345 kV lines even where Applicants only have plans for building a single 345 kV line, in the interest of facilitating future expansion.<sup>51</sup> These larger towers would, by themselves, have no effect on the transmission grid. And, of course, the Upsized Alternative would not alter a utility's duty to acquire a Certificate of Need before installing the additional 345 kV line.<sup>52</sup>

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<sup>46</sup> *Id.*, Finding 292.

<sup>47</sup> *Id.*, Findings 360 - 368 and Attachment F.

<sup>48</sup> *Id.*, Findings 369 - 423

<sup>49</sup> *Id.*, Findings 424 - 425.

<sup>50</sup> *Id.*, Finding 426.

<sup>51</sup> *Id.*, Finding 316.

<sup>52</sup> *Id.*, Finding 315.

CETF also argues that the La Crosse, Brookings and Fargo Projects as proposed were designed to meet customer demand through 2020, and that any benefits arising from Upsizing these projects would not accrue until beyond that planning horizon. Applicants again concede the point.<sup>53</sup> Applicants have generally structured their testimony to demonstrate the need for certain facilities by 2020, and do not ask the Commission to authorize an Upsized Alternative for any project that is not otherwise justified.

But Applicants point to one fact that is of marginal relevance to judging the merits of building new transmission facilities by 2020, but of great relevance to judging the merits of the Upsized Alternatives: high-voltage transmission infrastructure generally lasts 50 years or longer. Thus, the obligation to build a single transmission line to meet short- and medium-term needs provides an opportunity to anticipate a longer-term need. In exchange for incurring the incremental cost of the Upsized Alternative in the short term – a cost estimated at \$200 million for all three projects – Applicants would receive for decades to come the benefits of increased flexibility and avoided costs associated with building new transmission towers in certain areas. Given these advantages, MISO states that building single transmission lines on double-circuit towers has become standard practice.<sup>54</sup>

In addition, because Minnesota imports more electricity than it exports<sup>55</sup> Applicants argue that Minnesota has much to gain from keeping transmission capacity abundant. Transmission constraints can result in service interruptions and blackouts. But even when they do not, a transmission constraint bars a utility from acquiring electricity from a low-cost but remote resource, requiring the utility to substitute a closer – and higher-cost – resource. Utilities weigh these trade-offs when deciding whether to incur the added cost of building new transmission facilities. Because the Upsized Alternatives would reduce the cost of adding new transmission in the future, they would tend to keep the cost of acquiring electricity lower.<sup>56</sup>

Specifically with respect to the La Crosse Project, the ALJ recognizes that “a second 345 kV circuit could provide access to economical power generated to the south or east.”<sup>57</sup> And the Upsized Alternative would enable utilities to add another 345 kV line across the Mississippi River without building another set of transmission towers – an especially sensitive matter.

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<sup>53</sup> Exh. 121 (Grivna Rebuttal) at 9.

<sup>54</sup> ALJ’s Report, Findings 270, 318.

<sup>55</sup> *Id.*, Finding 154.

<sup>56</sup> Exh. 56 (Webb Direct) at 37; Exh. 121 (Grivna Rebuttal) at 13; 4 Transcript 156 (Webb).

<sup>57</sup> ALJ’s Report, Finding 267.

The Certificate of Need process ensures that no utility builds a high-voltage transmission line without demonstrating need. Once that need is demonstrated, the public interest requires the utility to make the optimum use of the resources acquired to meeting that need. Because the Commission finds that the La Crosse, Brookings and Fargo Projects are needed to serve needs by 2020, the Commission will authorize Applicants to implement their plans for making optimum use of the resulting capital investments. The ALJ's recommendation to approve the Upsized Alternatives for the Brookings and Fargo Projects will be adopted, and the recommendation to reject the Upsized Alternative for the La Crosse Project will be declined. The Commission will approve the Upsized Alternatives for each project.

### **3. Brookings Project's Eastern Terminus**

As discussed above, the ALJ found that the record demonstrates the need for the Upsized Alternative Brookings Project. But the ALJ could not find an adequate basis for determining whether to terminate the Brookings Project at the Lake Marion substation, or to extend the line all the way to the new Hampton Corner substation as the Applicants proposed.

The ALJ's finding reflects some of the arguments of CETF, which had proposed terminating the Brookings Project at the Lake Marion station instead of the Hampton Corner substation. In response to the ALJ's Report, CETF proposes that the Commission defer making a decision about the eastern terminus until it selects an appropriate route for the Brookings Project.

Applicants, NoCapX 2020, OES and UCAN take exception to the ALJ's conclusion, arguing that the record clearly favors the selection of the Hampton Corner substation as the eastern terminus.

Procedurally, Applicants and OES argue that the choice of a Brookings Project that terminates at the Lake Marion substation is not properly available for consideration. Minn. Rules, part 7849.0110, states that the Commission shall consider only those alternatives proposed before the close of the public hearing for which "there exists substantial evidence on the record with respect to each of the criteria listed in part 7849.0120." No party proposed the alternative of building a Brookings Project without the Hampton Corner substation until CETF's reply brief, long after the public hearings ended. Applicants and OES argue that part 7849.0110 precludes consideration of the type of late change suggested by the ALJ.<sup>58</sup>

Substantively, Applicants, NoCapX 2020 and OES argue that this proposal would face unexplored problems. These parties argue that the Lake Marion substation, which is currently configured to accommodate 115 kV and 69 kV transmission lines, is ill-suited to serve as the terminus for a double-circuit 345 kV transmission line. In contrast, the record demonstrates that terminating the Brookings Project at the Hampton Corner substation has distinct advantages over terminating the project at the Lake Marion substation.

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<sup>58</sup> *In the Matter of the Application of the City of Hutchinson for a Certificate of Need to Construct a Large Natural Gas Pipeline*, 2003 WL 22234703 at \* 7 (Minn. Ct. App. 2003).

Finally, Applicants and OES claim that the Brookings Project, including the Hampton Corner connection, represents the start of a new series of 345 kV transmission lines that will encircle the greater Twin Cities area, as envisioned in the CapX 2020 Vision Plan.

The Commission will decline CETF's recommendation to defer designating an eastern terminus for the Brookings Project until it establishes a route for the line. The Commission finds that the choice of a proper end-point is intrinsically related to the purposes for the Brookings Project, and that there is no ambiguity in the record about which outcome will better promote those purposes.

The merits of a future 345 kV transmission ring are not before the Commission at present, and therefore that matter has no bearing on the Commission's analysis. In contrast, clear evidence in the record persuades the Commission of the need for the Brookings Project to extend all the way to the Hampton Corner substation.

The record shows that the Brookings Project arose from the Southwest Minnesota → Twin Cities EHV [Extra High Voltage] Development Electric Transmission Study,<sup>59</sup> designed to analyze which transmission improvements could be made to further support generation from Buffalo Ridge and the west. Applicants evaluated alternative configurations using dynamic stability simulations, a constrained interface analysis, reactive power requirements and economic losses at various levels of generation.<sup>60</sup> The EHV Study demonstrated that a 345 kV line from the Brookings County substation through Lyon County, Franklin, Helena, Lake Marion and ending at Hampton Corner substation was the best option.<sup>61</sup> This became the Brookings Proposal that has now been subject to analysis by all parties.

Furthermore, the record demonstrates that terminating the Brookings Project at the Lake Marion substation would impair the project's ability to provide generation outlet, community reliability and even regional reliability. For example, the EHV study contains an automap analysis of generation support by line segment. This study demonstrates that eliminating the segment extending to the Hampton Corner substation could substantially reduce the project's overall generation support, and could require restrictions on the line's usage.<sup>62</sup>

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<sup>59</sup> See Exhs. 1 (Application) at 5.24, 107 (EHV Study Vol. I), 108 (EHV Study Vol. II).

<sup>60</sup> Exh. 1 (Application) at 5.24.

<sup>61</sup> Exh. 107 (EHV Study Vol. I) at 39.

<sup>62</sup> See Exh. 108 at Appendix D-1A (Base Plan with double circuit on Lyon County - Franklin - Helena), System Intact 1,200 MW Case; Appendix D-1A (Base Plan with double circuit on Lyon County - Franklin - Helena), System Intact 2,000 MW Case; Appendix D-1A (Base Plan with double circuit on Lyon County - FranMin - Helena), Helena - Blue Lake Outage 1,200 MW Case; and Appendix D-1A (Base Plan with double circuit on Lyon County - Franklin - Helena), Helena - Blue Lake Outage 2,000 MW Case.

The Brookings Project was designed to use three substations – connected to two 345 kV lines and a 115 kV line – to disburse power evenly throughout the southern portion of the Twin Cities.<sup>63</sup> Eliminating the Hampton Corner connection would eliminate one of the 345 kV points of distribution. This change would add load to the other points of interconnection, and would leave Twin Cities customers needlessly reliant on a single 345 kV connection for access to the energy flowing from Buffalo Ridge.<sup>64</sup>

For the foregoing reasons, the Commission disagrees with the ALJ that the record is insufficient for designating an appropriate eastern terminus for the Brookings Project. The Commission will adopt the position advocated by Applicants, NoCapX 2020, OES and UCAN, and will designate the proposed Hampton Corner substation as the eastern terminus.

**C. Applicants Must Show that the Proposed Facility or a Suitable Modification Will Provide Benefits to Society Compatible with Protecting the Natural and Socioeconomic Environments, including Human Health.**

Under Minn. Rules, part 7849.0120, subp. C, an applicant for a Certificate of Need must demonstrate that the proposed facility, or a suitable modification, will benefit society without causing excessive damage to the natural and socioeconomic environments. According to the ALJ, the Applicants have demonstrated that the proposed projects would provide a more reliable electric system – both within specifically vulnerable communities and in the region at large – and enable more electricity from renewable sources to reach customers.

The ALJ found that the Applicants had demonstrated how their proposals relate to the state's energy needs, and noted that it would have significant and immediate positive effects on several specific communities.

The ALJ acknowledged that the new transmission lines would have a detrimental visual effect, disturb farmland, and require the taking of private property. The lines themselves would disturb wildlife, protected habitat, and natural waterways, and the construction process would entail more disturbances. With this in mind, the ALJ recommends that steps be taken in the routing process to minimize adverse consequences by avoiding especially sensitive areas, and by mitigating harms that cannot be avoided.

Nevertheless, the ALJ concluded that the proposed projects would help ensure a reliable supply of electricity “for socially beneficial uses,” and facilitate future development throughout the region.

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<sup>63</sup> 10 Transcript 136 - 137 (Alholinna).

<sup>64</sup> Exh. 1 (Application) at 5.25-.26 (linking Brookings Project to Prairie Island - Blue Lake 345 kV line enhances reliability, ability to manage contingencies); 10 Transcript 109 - 110 (Alholinna).



Moreover, refraining from building the proposed projects, or some modification of them, could result in adverse environmental consequences. Increasing transmission congestion could result in an electrical system with ever-diminishing efficiency – requiring greater amounts of generation to overcome line losses, for example. And an unstable electrical system would have obvious adverse social consequences as well. Consequently the ALJ found that no party had demonstrated a more reasonable and prudent alternative to the Applicants’ proposals.<sup>65</sup> The Commission concurs.

**D. The Design, Construction, or Operation of the Proposed Facility, or a Suitable Modification, Will Comply with Relevant Policies, Rules, and Regulations of Other State and Federal Agencies and Local Governments**

**1. In General**

Under Minn. Rules, part 7849.0120, subp. D, an applicant for a Certificate of Need must show that its proposal would comply with all relevant laws. The ALJ observed that the Applicants provided a list of permits they are pursuing. While NAWO/ILSR argued that the Applicants’ proposals fail to promote policies discouraging further greenhouse gas emissions, the ALJ concluded that NAWO/ILSR failed to identify an actual law that the proposals would violate. The ALJ therefore concluded that the record provided no evidence that the Applicants would not be able to build the proposed projects, or some modifications of them, in a manner that fulfills all relevant legal standards.<sup>66</sup> The Commission concurs.

**2. Conditions**

The Joint Intervenors recommend granting the Certificates subject to conditions that would facilitate implementation of the RES and C-BED statutes and other state policies that favor the use of renewable sources of energy.

**a. Joint Intervenors’ Proposal**

Traditionally utilities have demonstrated the need for their projects by comparing forecasts of customer demand to anticipated capacity to fulfill that demand. More recently the Legislature has adopted statutes such as the Renewable Energy Standards directing utilities to acquire electricity from renewable sources. And in the *825 MW Proceeding*, a utility successfully argued that, without regard to *customer* demands, a transmission line was needed to fulfill *statutory* demands.<sup>67</sup> The lines were approved as a source of generation outlet. In authorizing such lines, however, the Commission imposed conditions designed to ensure that the new transmission capacity would

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<sup>65</sup> ALJ’s Report, Findings 427-440.

<sup>66</sup> *Id.*, Findings 441-444.

<sup>67</sup> *825 MW Proceeding*, ORDER GRANTING CERTIFICATES OF NEED SUBJECT TO CONDITIONS (March 11, 2003) and subsequent orders.

actually fulfill the purposes for which it was built.<sup>68</sup> The Joint Intervenors ask the Commission to adopt analogous conditions in the current docket.

These conditions divide into three main components. First and foremost, the Joint Intervenors recommend that, for each transmission line, the Commission direct Applicants to build or contract for new sources of renewable generation in an amount sufficient to fully subscribe the new line's capacity. Applicants would need to make these arrangements at least two years before the line would become operational, and sooner if necessary to meet RES requirements.

This timeline, and many of the remaining proposed conditions, are designed to implement this first condition in the manner prescribed by MISO. MISO administers the process by which generators are selected to run – and in so doing, determines how the transmission lines are used. Under MISO's federally-regulated Transmission & Energy Markets Tariff (TEMT), a utility serves its customers by (a) designating specific generation resources as “network resources,” and then (b) requesting from MISO sufficient transmission capacity in the form of “network integration transmission service” to enable delivery of the energy to customers.<sup>69</sup>

MISO's Generator Interconnection Queue process determines which generator will be authorized to interconnect with the transmission grid next. As a practical matter, only generators owned by a load-serving entity (such as a utility) or contracted to a load-serving entity can advance through the queue to ultimate interconnection.<sup>70</sup>

Second, the Joint Intervenors ask the Commission to direct Applicants to report the transmission capacity of each line, how that capacity would be allocated among the line's owners, and the type of transmission service Applicants will seek for transporting the new electricity. Applicants would then need to ask MISO to reserve the necessary firm transmission capacity. If necessary to meet these conditions, Applicants would also promptly designate the new renewable commitments as “network resources” pursuant to MISO's TEMT.

Finally, Applicants would need to inform the Commission of changes at MISO or the federal level that could affect these conditions.

#### **b. Positions of the Parties**

NAWO/ILSR supports attaching these conditions to any Certificate of Authority granted. CETF finds insufficient similarities between the transmission line in the *825 MW Proceeding* and the Fargo and La Crosse Projects to warrant attaching conditions, but concludes that the Brookings Project is sufficiently similar to warrant imposing such conditions. Specifically, both the *825 MW*

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<sup>68</sup> *Id.*

<sup>69</sup> Exh. 204 (Ellison Direct) at 4-6, citing TEMT Module B, Section 30.

<sup>70</sup> 20 Transcript at 14 - 20.

*Proceeding* and the Brookings Project address transmission lines being built to provide generation outlet from the Buffalo Ridge region.

In contrast, Applicants and OES oppose the conditions, and MISO also expressed reservations. They variously argued as follows:

- It would be inappropriate to impose conditions related solely to the needs of generation outlet on facilities that are also intended for providing regional and local reliability.
- The proposed conditions are unnecessary because generators using renewable sources of energy are likely to benefit from the added transmission capacity in any event.
- The proposed conditions are redundant because they are merely attempting to achieve outcomes that are already mandated by the RES.
- The proposed conditions would be unduly costly to implement.
- The proposed conditions may be illegal or impossible to implement.

The ALJ ultimately found their arguments persuasive.

### **c. Analysis**

Having reviewed the ALJ's recommendation and the arguments of the parties, the Commission finds it in the public interest to establish conditions, although not with the same scope and not with all the same terms as proposed by the Joint Intervenors. The Commission considered the parties' objections as follows:

**Are the Conditions Appropriate for Multiple Use Projects?** In opposing the proposed conditions, Applicants and OES seek to distinguish the *825 MW Proceeding* from the current docket. In particular, they argue that the *825 MW Proceeding* lines were justified solely on the basis of generation outlet. In contrast, Applicants justify the lines in the current proceeding on the grounds of promoting regional and community reliability as well as creating generation outlet.

CETF finds this distinction persuasive with respect to the Fargo and La Crosse Projects, but concludes that the Brookings Project has enough in common with the *825 MW Proceeding* to justify similar conditions. Applicants note that they justify the Brookings Project not merely on the grounds of generation outlet, but also to provide reinforcement to the transmission grid along its route. CETF does not find these arguments persuasive. CETF concludes that Applicants have prominently promoted the need for the Brookings Project as a means for securing renewable sources of energy. In any event, CETF finds no inconsistency with the Brookings Project being subject to the proposed conditions while also providing grid reinforcement.

As an initial matter, the Commission finds the views of CETF persuasive. The Joint Intervenor's conditions are designed to promote the use of renewable sources of energy. But the ALJ concludes, and the Commission agrees, that the record demonstrates that the Fargo and La Crosse Projects are needed for reasons well beyond acquiring new sources of energy. Consequently the Commission finds no more reason to attach the proposed conditions to these projects than to any other transmission line project.

The Brookings Project is different; the factors that prompted Applicants to propose the Brookings Project differ from the factors that drove the Fargo and La Crosse Projects. Contrary to the ALJ's conclusion, the Brookings Project does not appear on the list of "common projects" recommended in each of the six scenarios tested in the CapX 2020 Vision Plan. Thus, the Fargo and La Crosse Projects were driven primarily to match transmission capacity to anticipated levels of demand, while the Brookings Project was driven primarily by the need for new sources of supply.<sup>71</sup>

Applicants seek to de-emphasize this distinction by claiming that each of the projects is driven by the need for new sources of supply. But the real nature of the rationale for the various projects is reflected in the application. Section 4.2, addressing "Generation Outlet Needs," devotes one paragraph to discussing the La Crosse Project, one paragraph to the Fargo Project, and *seven pages* to the Brookings Project.<sup>72</sup> As stated in the application:

#### 4.2 Generation Outlet Needs

The need for additional generation outlet to serve the expanding customer needs in the State prompted development of these high voltage transmission facilities. *In particular, the Twin Cities - Brookings County 345 kV Project is primarily based on the need to add generation outlet in the southwestern Minnesota region to accommodate increasing amounts of available wind generation....*<sup>73</sup>

Similarly, in discussing the rationale for the projects, the application states as follows:

#### 6.4 Renewable Energy Standard

The three 345 kV transmission line projects proposed in this Application also provide support for the development of generation in the vicinity of the proposed lines and separately justify granting the Certificates of Need.

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<sup>71</sup> See also Exh. 1 (Application) at 1.4, 1.14-1.15, 1.20-1.21; Exh. 67 (Kline Direct) at 12; Exh. 98 (King Direct) at 2-3; Exh. 104 (Alholina Direct) at 2-5.

<sup>72</sup> Exh. 1 (Application) at 4.2.

<sup>73</sup> *Id.* (emphasis added).

Each of the lines subject to this proceeding will, in part, provide outlet for new generation, and in part facilitate expansion of renewable energy generation resources. The Twin Cities – Brookings County 345 kV Project is primarily designed to increase generation outlet capacity in and around the Buffalo Ridge region which is the premier wind-energy resource area in Minnesota. In light of the numerous wind-energy projects that are already in the MISO queue, *the outlet capacity resulting from this project should be available for wind-energy projects under the current MISO TEMT rules.*<sup>74</sup>

This language contrasts with the language used for describing other projects:

Similarly, the Twin Cities - Fargo 345 kV Project will create additional generation outlet capacity in the Red River Valley and points west, another region that has significant wind-energy development potential. *It is uncertain that the outlet capacity directly attributable to this line will be used by renewable energy resources....*<sup>75</sup>

It is plain that the Brookings Project, unlike the other project, has been offered for the purpose of securing access to renewable energy resources. In this respect, the Brookings Project has the same dynamics as the *825 MW Proceeding*. And, just as in that case, these dynamics lead the Commission to establish conditions "to maximize the likelihood that the certified line[] will be used for [its] intended purpose."<sup>76</sup>

**Are the Conditions Needed?** Applicants and OES argue that the proposed conditions will provide little benefit because, given the prevalence of wind turbine projects in the MISO queue along the Buffalo Ridge, some large portion of the new transmission capacity will inevitably transmit electricity from renewable sources.

First, it is unclear that the MISO queue is the only source of generation competing for the Brookings Project's capacity. OES notes the many existing non-renewable generators along the transmission route.<sup>77</sup> Indeed, NoCapX 2020 expresses concern that the Brookings line could become congested with electricity from the coal plant in Big Stone, South Dakota, because a 345 kV transmission line from that plant would connect to the Brookings Line.

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<sup>74</sup> *Id.* at 6.4 (emphasis added).

<sup>75</sup> *Id.* (emphasis added).

<sup>76</sup> *825 MW Proceeding*, ORDER GRANTING CERTIFICATES OF NEED SUBJECT TO CONDITIONS (March 11, 2003) at 17.

<sup>77</sup> See, for example, OES Reply Brief at 4.

Second, while the majority of generators on the MISO queue may rely on wind power, generators using fossil fuels represent a disproportionate share of the total generating capacity of all the generators on the queue. All else being equal, generators relying on fossil fuels would be expected to occupy a disproportionate share of the Brookings Project's capacity. And ultimately the fact that a renewable energy project is on the queue is less relevant than the probability that the project would actually be built and connected to the grid. The proposed conditions are appropriately designed to enhance that probability.

**Are the Conditions Redundant?** Applicants and OES argue that the proposed conditions are, at best, redundant; they are designed to compel utilities to do things that utilities already have a duty to do. Specifically, statutes and rules already direct utilities to acquire electricity from renewable sources, to file plans identifying and justifying their strategies for serving their customers, and to make regular reports on their progress in acquiring renewable resources.

The Commission finds that the conditions are not merely redundant of other legal requirements. As previously noted, the RES directs a utility to acquire a specified share of its electricity from renewable sources, with the share increasing over time. But the RES provides for a utility to modify or delay these requirements if, among other reasons, "transmission constraints prevent[] delivery of service...."<sup>78</sup>

While this Commission issues Certificates of Need and Route Permits, it does not control the allocation of transmission capacity. That is controlled by MISO in accordance with its federally-regulated Transmission & Energy Markets Tariff (TEMT). The conditions are designed to, among other things, ensure that transmission constraints do not prevent delivery of electric service from renewable generators.

**Are the Conditions Too Costly?** The proposed conditions would require utilities to enter into power purchase agreements with developers of renewable generators two years prior to the Brookings Project becoming operational. Applicants and OES argue that this requirement would interfere with a utility's efforts to acquire its supply of electricity from the lowest-cost source. By reducing competition, these restrictions could only serve to increase a utility's costs. Rather than helping to achieve the purposes of the RES, moreover, these conditions could lead utilities to seek exemptions because of the increased costs.<sup>79</sup>

While the Commission does not dispute these general propositions, they do not dissuade the Commission from approving conditions for the Brookings Project. First, the Commission observes that much the same concerns were raised in the *825 MW Proceeding*;<sup>80</sup> the Commission

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<sup>78</sup> Minn. Stat. § 216B.1691, subd. 2b(a)(6).

<sup>79</sup> Minn. Stat. § 216B.1691, subd. 2b(a)(1).

<sup>80</sup> *825 MW Proceeding*, ORDER GRANTING CERTIFICATES OF NEED SUBJECT TO CONDITIONS (March 11, 2003) at 17.

found that conditions were warranted nevertheless, and have operated successfully. Second, the Legislature similarly adopted the RES notwithstanding the fact that it would require utilities to acquire electricity on some basis other than minimizing cost. A utility cannot obtain an exemption merely by alleging that compliance would increase costs; the utility must demonstrate that “implementation would cause significant rate impact.”<sup>81</sup> No utility has yet requested to be exempt from the RES’s standards on these grounds.

Moreover, the record does not support the conclusion that the proposed conditions would so impair the market for electricity that a utility’s rates would increase substantially. MISO and OES argue that there are multiple developers vying for interconnection,<sup>82</sup> and wind-powered generators will likely consume the Brookings Project’s transmission capacity even in the absence of conditions.<sup>83</sup> While the ALJ does not find the proposed conditions necessary, she also finds that Applicants have not convincingly demonstrated that the conditions would impede competitive bidding.<sup>84</sup> It is therefore difficult to see how conditions designed to ensure this outcome would alter market dynamics.

However, Applicants do identify one aspect of the proposed conditions that potentially imposes a needless – and needlessly costly – requirement. The Joint Intervenor’s conditions would direct a utility to commit to sources of renewable generation at least two years before the relevant transmission line segments would be built. This language derives from the language of the *825 MW Proceeding*’s conditions. The MISO queue mechanism has evolved since that time, and it is no longer clear that this two-year period is required. The Commission finds it sufficient to direct utilities to make commitments to renewable sources of energy within the timeframe of the RES, coordinated with the proposed in-service dates of the relevant segments of the Brookings Project. The conditions will be modified accordingly.

**Would the Conditions Exceed Commission Jurisdiction?** Applicants, OES and MISO question whether the Commission has the authority to direct parties to implement the conditions.

Applicants argue that reserving the capacity of the Brookings Project for renewable sources of energy is physically impossible as well as illegal. They argue that the laws of physics, not Commission Orders, will ultimately determine which electrons flow over any given transmission line. And Applicants argue that the use of the transmission grid is ultimately governed by MISO’s tariffs, which establish the mechanisms by which MISO selects generators to be dispatched.

The argument that the Joint Intervenor’s are seeking to achieve a physically impossible end

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<sup>81</sup> Minn. Stat. § 216B.1691, subd. 2b(a).

<sup>82</sup> See, for example, Exh. 204 (Ellison Direct) at 4-5.

<sup>83</sup> See, for example, Exh. 303 (Rakow Rebuttal) at 30-31.

<sup>84</sup> ALJ’s Report, Finding 460.

misunderstands the Joint Intervenor's proposal. It is doubtless true that the laws of physics will cause electric current from a variety of sources to flow across the Brookings Line. Similarly, a customer that contracts for "Green Power"<sup>85</sup> cannot be assured that the specific electrons that pass through her meter originated from a renewable source of energy. But the customer can be assured that when she buys a kilowatt-hour (kWh) of Green Power that the renewable source of energy supplied an extra kWh of power to the grid and is not displaced by electricity from some non-renewable source. In this vein, the Joint Intervenor merely seek assurance that an amount of transmission capacity that the Brookings Project makes available for renewable sources of energy is not displaced by electricity from non-renewable sources.

With this understanding, it becomes clear that the Joint Intervenor's proposal does not attempt to intrude upon the workings of MISO except to the extent provided for in MISO's tariffs. The proposal reflects the use of mechanisms within the control of Minnesota-regulated utilities to help meet their statutory obligation to acquire energy from renewable sources.

Consequently the Commission will adopt the Joint Intervenor's proposed conditions for the Brookings Project. But in an abundance of caution, the Commission will specify that the conditions are designed to assure that the firm outlet capacity of the Brookings Project is dedicated to renewable generation, but only to the extent possible. MISO allocations and restrictions on MISO-managed transmission capacity are beyond the scope and authority of this Commission.<sup>86</sup>

#### **d. Commission Action**

Based on the foregoing analysis, the Commission will make the Brookings Project's Certificate of Need subject to conditions designed to assure that, to the extent possible, the firm outlet capacity of the Brookings Project is dedicated to renewable generation. Those conditions will read as follows:

- a. Applicants sign power purchase agreements (PPAs) or commit to utility-owned renewable generation projects within the timeframe of Minn. Stat. § 216B.1691, coordinated with the proposed in-service dates of each segment of this transmission line.

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<sup>85</sup> See, for example, Minn. Stat. § 216B.169, subd. 2.

<sup>86</sup> ALJ's Report, Finding 460.



- b. Applicants commit to submit network (firm) transmission service requests to MISO's Open Access Same Time Information System for the total amount of new capacity enabled by this line to attempt, to the extent lawfully possible, to try to achieve full subscription of the capacity for renewable generation.
- c. Applicants make a compliance filing within 30 days of obtaining the certificates of need, detailing the allocation of the new transmission capacity among Applicants. The compliance filing must address how much capacity will be enabled by this transmission line; the allocation of the capacity among Applicants; and the type of MISO transmission service Applicants will seek to serve the renewable generated electricity to be carried on this line, recognizing that MISO allocation and restriction of MISO managed transmission capacity is beyond the scope and authority of this Commission.
- d. As necessary to comply with condition a., Applicants designate the new, renewable commitments as Network Resources pursuant to MISO's federal Transmission & Energy Markets Tariff, and seek the designation as soon as permitted under the MISO rules, but no later than 10 days after the Commission approves the PPAs or commitments.
- e. Applicants report to the Commission any changes at MISO or the federal level that could affect the conditions.

## **VII. COMMISSION ACTION**

### **A. Completeness of Environmental Review**

Commission rules establish the following procedures for environmental review:

- The Department gives notice to interested persons (7849.7050, subp. 1).
- The Department convenes a public meeting (7849.7050, subp. 3).
- The Department receives comments on scope of review (7849.7050, subp. 4).
- The Department issues a decision establishing the scope of review (7849.7050, subp. 7).
- The Department prepares environmental review documents (7849.7050, subp. 9).
- The Department files its environmental review documents (7849.7090, subp. 1).
- The Commission rules on the review's completeness (7849.7090, subp. 2).

Having reached the final step, the Commission must determine whether the environmental report and the record address the issues identified by the Department in its scoping decision. Having reviewed the Department's Environmental Report, the Commission concurs with the Administrative Law Judge that the Environmental Report, and the record as a whole, do in fact adequately address the certificate of need issues identified in the scoping decision.

## **B. Certificate of Need**

On the basis of its analysis of the record, and with due consideration for the conditions discussed herein, the Commission concludes that the requirements of Minn. Rules, part 7849.0120, have been fulfilled:

- First, the record shows that denying the application would probably impair the future adequacy, reliability, or efficiency of energy supply to Applicants, to Applicants' customers, or to the people of Minnesota and neighboring states. Failure to act would frustrate the interests of regional and community reliability, and generation outlet.
- Second, the Upsized Alternative projects are at least as reasonable and prudent as any other alternative demonstrated by a preponderance of the evidence on the record. Conservation, load management and an increased reliance on renewable sources of energy alone will not be sufficient to meet the demonstrated needs.
- Third, a preponderance of the evidence shows that the Applicants' proposals, as modified, would benefit society in a manner compatible with protecting the natural and socioeconomic environments. The Commission finds that, under reasonable assumptions, the Upsized Alternatives will be the most cost-effective way to provide regional and community reliability and generation outlet.
- Finally, the record does not demonstrate that the design, construction, or operation of the proposed facility would fail to comply with the policies, rules, and regulations of other state and federal agencies and local governments. However, the Commission also finds that placing appropriate conditions on the Brookings Project will ensure that the project actually contributes to the fulfillment of the RES, the primary purpose for which the Brookings Project has been authorized.

Having examined the record and carefully considered the ALJ's Report, the Commission concurs in the ALJ's findings and conclusions – and will therefore accept, adopt and incorporate them into this Order – except as they are rejected herein or otherwise inconsistent with this Order. Among other items, the Commission identified some words or passages in the ALJ's Report, Findings 93, 122, 331, and in the Memorandum that appear to be simple errata. The Commission will note these modifications in its Ordering paragraphs below.

For the foregoing reasons the Commission will grant the requested Certificates of Need for the La Crosse and Fargo Projects' Upsized Alternatives, and for the Brookings Project's Upsized Alternative subject to conditions.

As suggested by UCAN, the Commission will direct Applicants to make a compliance filing disclosing each project's transmission capacity, owners, and ownership structure. Finally, the Commission will direct the utilities in this matter to establish a consistent audit trail procedure to facilitate efficient review of inputs and analysis underlying the models and studies they rely on in future Certificate of Need cases.

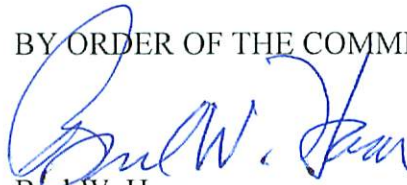
## ORDER

1. The March 31, 2008 Environmental Report prepared by the Office of Energy Security of the Minnesota Department of Commerce meets the requirements of applicable statutes, and addresses the issues identified by the Commissioner in his February 18, 2008 Environmental Assessment Scoping Decision.
2. The findings, conclusions and recommendations contained in the Administrative Law Judge's February 27, 2009 Findings of Fact, Conclusions and Recommendation are adopted except as inconsistent with this Order or otherwise specified below:
  - A. Applicants have adequately demonstrated need for the Upsized Alternatives for each of the proposed transmission projects. However, Applicants have demonstrated the need for the Brookings Project subject to conditions designed to ensure, to the extent possible, that the amount of additional capacity created by the project is available for transmitting electricity from renewable sources.
  - B. The Commission adopts the following changes:
    - 1) *Finding 93*: The La Crosse Project refers to the project as proposed in the Application and addressed in the Direct Testimony. The La Crosse Upsized Alternative refers to the alternative proposed by Applicants in their Rebuttal Testimony. Applicants are asking the Commission to grant a certificate of need for ~~the La Crosse Project of the Upsized Alternative~~ either alternative, but Applicants prefer the Upsized Alternative. Both the La Crosse Project and the Upsized Alternative are illustrated on Exhibits 24 and 25, Attachment C and D hereto. The Minnesota portion of the 345 kV line would be approximately 85 to 140 miles long, depending on the route selected.
    - 2) *Finding 122*: Applicants' Upsized Alternative for the Fargo Project is to construct the entire length of the route using 345 kV/345 kV double circuit compatible structures, with only one side strung and operated at 345 kV. This option was developed in response to the direct testimony of OES witness, Dr. Steve Rakow, and MCEA ~~CETF~~ witness, Larry Schedin. Both witnesses expressed their opinion that the Fargo Project should be larger than the original proposed project in order to provide the potential for additional transfer capability and long-term benefits. In his direct testimony, Mr. Schedin recommended that the Fargo Project be constructed as a double-circuit 345 kV configuration. In his direct testimony, Dr. Rakow recommended that the Fargo Project be constructed with a single-circuit 500 kV configuration. Based on these recommendations, Applicants reviewed their initial analysis and offered the Upsized Alternative.

- 3) *Finding 331*: Applicants considered the alternative of installing direct current (DC) lines, and related substations. However, the alternative was rejected because of the high estimated cost: \$9.7 billion for the DC configuration, compared to approximately \$1.5 billion ~~million~~ for the CapX projects as proposed. OES reviewed this analysis and concurred that the DC option was not viable. No other party offered expert testimony addressing Applicants' proposed AC line.
  - 4) *Memorandum, page 97, 3<sup>rd</sup> full paragraph*: Some of the parties and members of the public are certain that the proposed projects, and especially the Upsized Alternative, are a subterfuge to speed development of transfer of power from the western states of North and South Dakota to load in Wisconsin and points further to the ~~west~~ east. The record does not support this fear. Each of the planning engineers credibly testified that the lines are intended to strengthen regional reliability to serve Minnesota load by providing alternative paths to the metropolitan area and the identified communities, reducing current congestion, and helping Minnesota meet its renewable energy goals.
3. The Commission hereby grants Applicants' request for Certificates of Need for the Upsized Alternatives for each of the proposed 345 kV transmission projects. The Commission grants a Certificate of Need for the Brookings Project provided that they comply with the following conditions to the extent possible:
- A. Applicants shall sign power purchase agreements (PPAs) or commit to utility-owned renewable generation projects within the timeframe of Minn. Stat. § 216B.1691, coordinated with the proposed in-service dates of each segment of the Brookings Project.
  - B. Applicants shall submit network (firm) transmission service requests to the Open Access Same Time Information System of the Midwest Independent Transmission System Operator, Inc. (MISO), for the total amount of new capacity enabled by this line to attempt, to the extent lawfully possible, to try to achieve full subscription of the capacity for renewable generation.
  - C. Applicants shall make a compliance filing within 30 days of obtaining the Certificates of Need, detailing the allocation of the new transmission capacity among owners. The compliance filing shall address how much capacity will be enabled by this transmission line; the allocation of the capacity among Applicants; and the type of MISO transmission service Applicants will seek to serve the renewable generated electricity to be carried on this line, recognizing that MISO allocation and restriction of MISO managed transmission capacity is beyond the scope and authority of this Commission.

- D. As necessary to comply with condition A., Applicants shall designate the new, renewable commitments as Network Resources pursuant to MISO's federal Transmission & Energy Markets Tariff, and seek the designation as soon as permitted under the MISO rules, but no later than 10 days after the Commission approves the PPAs or commitments.
- E. Applicants shall report to the Commission any changes at MISO or the federal level that could affect these conditions.
- 4. Applicants shall make a compliance filing disclosing each project's transmission capacity, owners, and ownership structure.
- 5. In future Certificate of Need cases, the utilities in this matter shall establish a consistent audit trail procedure to facilitate efficient review of inputs and analysis underlying the models and studies they rely on.
- 6. This Order shall become effective immediately.

BY ORDER OF THE COMMISSION



Burl W. Haar  
Executive Secretary



(S E A L)

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STATE OF MINNESOTA) )SS  
COUNTY OF RAMSEY )

## AFFIDAVIT OF SERVICE

I, Margie DeLaHunt, being first duly sworn, deposes and says:

That on the 22nd day of May, 2009 she served the attached

### ORDER GRANTING CERTIFICATES OF NEED WITH CONDITIONS.

MNPUC Docket Number: ET-2,E-002, et al./CN-06-1115

XX By depositing in the United States Mail at the City of St. Paul, a true and correct copy thereof, properly enveloped with postage prepaid

XX By personal service

XX By inter-office mail

to all persons at the addresses indicated below or on the attached list:

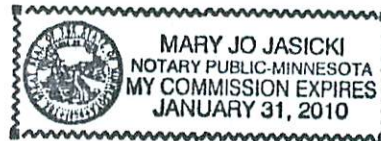
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Julia Anderson - OAG  
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Margie DeLaHunt

Subscribed and sworn to before me,

a notary public, this 22<sup>nd</sup> day of

May, 2009  
Mary Jo Jacchi  
Notary Public



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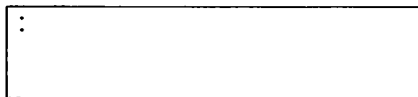
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