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

In the Matter of the Application of Great River Energy, Northern States Power Company (d/b/a/ Xcel Energy) and others for Certificates of Need for the Cap X 345-kV Transmission Projects	OAH Docket No. 15-2500-19350-2 PUC Docket No. CN-06-1115

NOCAPX 2020 INITIAL BRIEF

I. INTRODUCTION AND SIGNIFICANT FACTS

In this docket, the Applicants unspecified have requested Certificates of Need for the projects in Phase I of at least three Phases, consisting three major lines: the Fargo to Metro line (hereinafter "Fargo"); the Brookings to Metro line (hereinafter "Brookings") and the Metro to LaCrosse line (hereinafter "LaCrosse") and many lower voltage and other system additions and upgrades. The 345kV lines as proposed have a very high capacity -- the capacity/thermal limits are 2428MVA, and if double circuited, "upsized" as proposed at the last minute, the capacity/thermal limits double to 4856MVA. Why are high-capacity lines needed? Why are super-sized high-capacity lines needed? These lines are not needed for any of the reasons they claim, but are driven by the MISO Midwest Market to increase electricity available for market transactions outside of Minnesota. The size, type and timing of the CapX 2020 proposal does not fit with the claimed need and is not justified. This is a case where the "need" was concocted and framed in a three-part claim to bolster odds that the project could survive scrutiny.

CapX claims that the project is needed for three interwoven purposes:

- Local Need – Community Reliability (Ex. 1, Application, p. 4.1)
- Regional System Reliability Needs – (Ex. 1, Application, p. 6.1)

- Generation Outlet Needs (Ex. 1, Application, p. 4.40)

Each of the three 345kV lines proposed has a different mix, or emphasis, of these claimed needs, yet each of these need claims, alone or in combination, are not supported by the evidence, and are insufficient to justify any of the three 345kV lines proposed.

The local load claim is for "deficiencies" in areas along the corridors proposed for CapX. When compared with the size of the originally proposed transmission configuration, this is a very small percentage of the capacity of the lines.

Need	**Fargo**	**Brookings**	**LaCrosse**
Local load (MW)	Southern RRV 21 Ex. 1, App, p. 4.26 Alexandria 27-19 Ex. 1, App., p. 4.29 St. Cloud 172-230 Ex. 1, App. P. 4.34	None – see Application	Rochester 129-310 Ex. 1, App, p. 4.6 LaCrosse 132-152 Ex. 1, App, p 4.15
Regional reliability	6,300-4,500MW	6,300-4,500MW	6,300-4,500MW
Generation Interconnection	Not claimed	1200MW Ridge + Big Stone I & II + 700MW Alhollina, Tr. Vol. 10, p. 157. Outlet capacity "including" renewable Ex. 1, App, p. 4.48	Not claimed

The thermal limits, capacity, of the lines range from 2050-2211MVA. Kline, Tr. Vol 7, p. 55, l. 23-24 (capacity); Ex. 76, Shedin Attachment J, Applicants' Response to JI IR No. 3 (2211MVA); Kline, Tr. Vol. 7, p. 57, l. 4 (2050). MVA is essentially MW, "MW is the lion's share of MVA." Kline, Id. If the line is double circuited, the capacity would doubled, 4,100 MVA. Kline, Tr. Vol. 7, p. 57, l. 8. Local load claims for the Fargo line are under 300MW, or less than 14% of capacity. Local load claims for the LaCrosse line are from 260-462, from 13-23% of the rated capacity. There are no local load claims for the Brookings line in the application. Ex. 1, Application.

The regional need claim is for increased demand of 4,500-6,300MW by 2020 in the "CapX region." "The region" studied for CapX, and for which Applicants claim this need, is the shaded area of the map, which extends from the middle of the Dakotas, through Minnesota, southward covering most of Iowa, and easterly into mid-Wisconsin. Ex. 1, CapX 2020 Application, App. A-1, p. 4.; Testimony of Rogelstad, Vol. 2A, p. 28, l. 1-3.

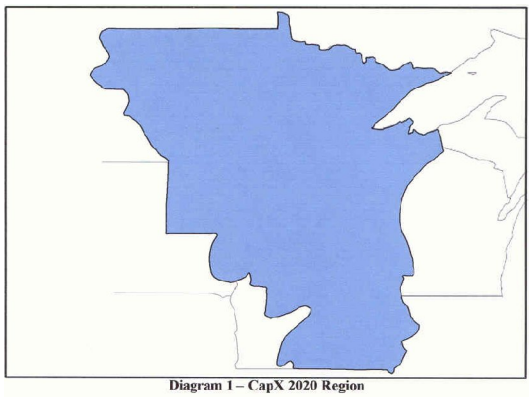
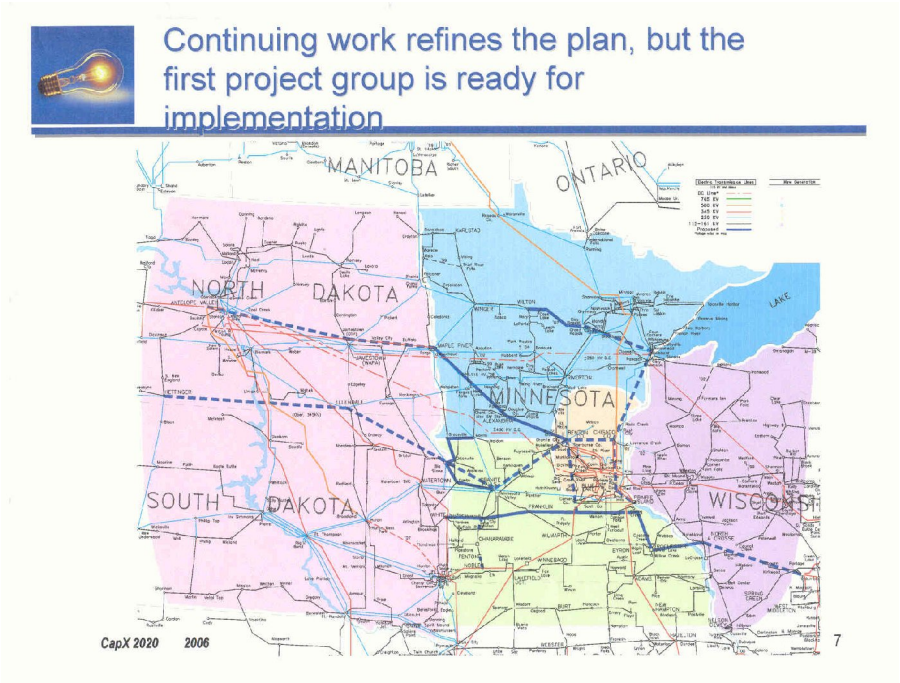


Diagram 1 – CapX 2020 Region

The CapX Vision Plan was based on 2003 data. Lacey, Tr. Vol. 4, p. 32, l. 14-16. This forecast does not take into account Xcel's most recent IRP Order or the Notice of Changed Circumstances filing. Lacey, Id., p. 37. It also does not take into account the current recession or depression and the impacts on need, load decrease, and the prudency of infrastructure investments at this time.

The map below shows the proposed transmission lines also start and end outside of Minnesota, running from the coal plants of North Dakota, through Minnesota, and east into mid-Wisconsin. Ex. 13, Slide 7, CapX as depicted in CapX powerpoint; Rogelstad, Vol. 2A, p. 40. The lines shown on the



map run as power typically flows in the area, from the northwest to the south east. Kline, Tr. Vol. 7, p. 51.

When CapX overlays its geographic area with its transmission "vision," this is its result:

Figure 1-9: Geographic Scope of CapX2020

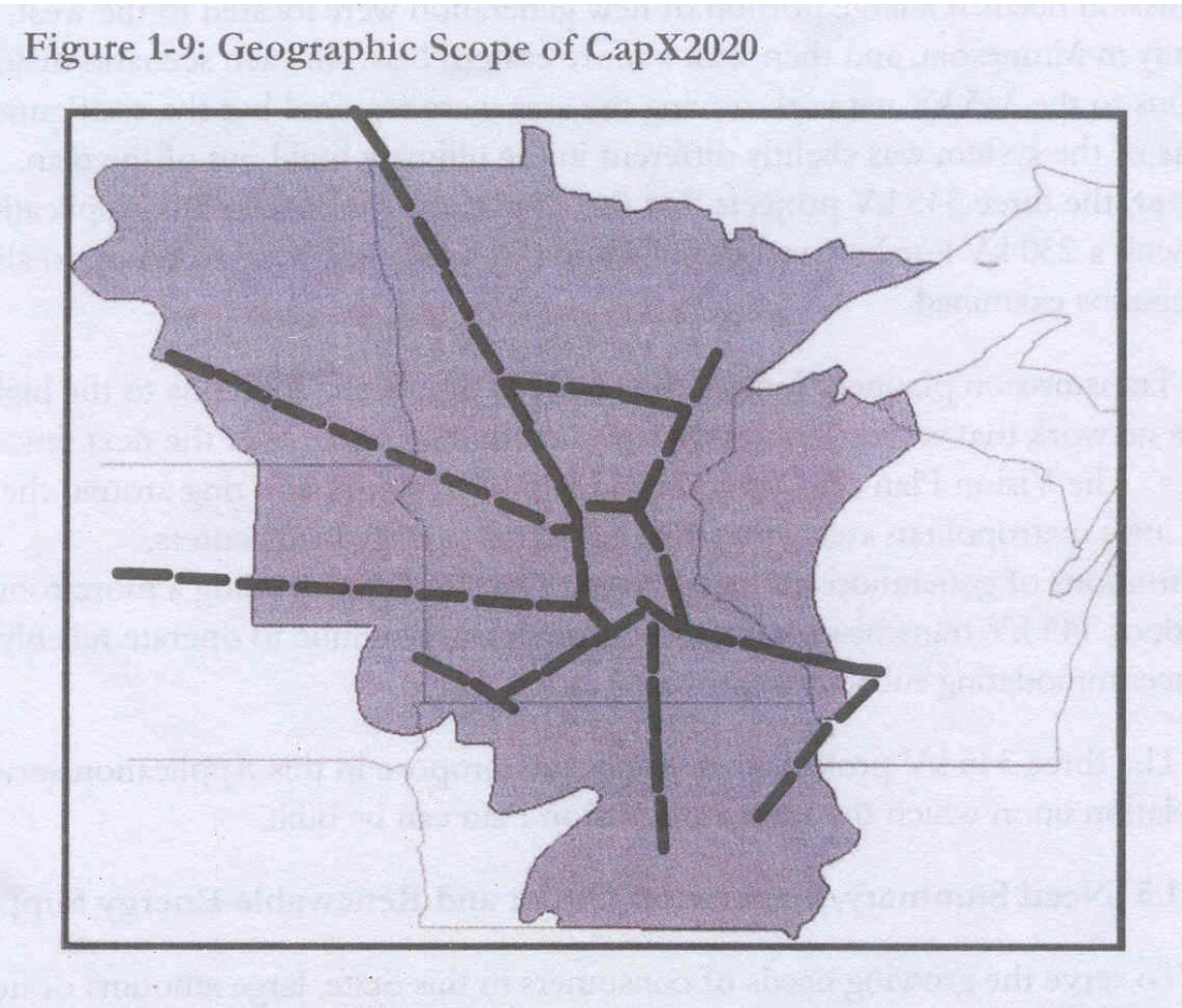


Exhibit 1, Application, Figure 1-9, p. 1.13.

This application is for three transmission lines in Phase I of at least three phases. Ex. 12, Slide 16, CapX 2020 Update, June 14, 2006; The lines chosen are from a list of common facilities from various scenarios, on the belief that these will need to be built. Common Recommended Facilities, Exhibit 1, Application, Appendix A-1, p. 38; Common Recommended Facilities, Rogelstad, Direct p. 17; Rogelstad Testimony, Tr. Vol. 2A, pps. 59-76; Exhibit 17,

2005 Biennial Report Filed by Transmission Utilities (selected); Rogelstad Testimony, Tr. Vol. 2A, p. 71-78

Table 4. Summary of Vision Plan

Facility Name				
From	**To**	**V olt (kV)**	**Miles**	**Cost ($M)**
Alexandria, MN	Benton County (St. Cloud, MN)	345	80	60
Alexandria, MN	Maple River (Fargo, ND)	345	126	94.5
Antelope Valley (Beulah, ND)	Jamestown, ND	345	185	138.75
Arrowhead (Duluth, MN)	Chisago County (Chisago City, MN)	345	120	90
Arrowhead (Duluth, MN)	Forbes (Northwest Duluth, MN)	345	60	45
Benton County (St.Cloud, MN)	Chisago County (Chisago City, MN)	345	59	44.25
Benton County (St. Cloud, MN)	Granite Falls, MN	345	110	82.5
Benton County (St. Cloud, MN)	St. Bonifacius, MN	345	62	45.5
Blue Lake (Southwest Twin Cities, MN)	Ellendale, ND	345	200	150
Chisago County (Chisago City, MN)	Prairie Island (Red Wing, MN)	345	82	61.5
Columbia, WI	North LaCrosse, WI	345	80	60
Ellendale, ND	Hettinger, ND	345	231	173.25
Rochester, MN	North LaCrosse, WI	345	60	45
Jamestown, ND	Maple River (Fargo, ND)	345	107	80.25
Prairie Island (Red Wing, MN	Rochester, MN	345	58	43.5
TOTAL			**1620**	**$1,215 ($M)**

Exhibit 17, Portion of the 2005 Biennial Report Filed by Transmission Utilities, p. 36; Ex. 1, Application, App. A-1, Technical Update October 2005; see also Exhibit 12, CapX 2020 Update, June 14, 2006; Rogelstad, Vol. 2A, p. 69-74; Rogelstad, Direct Testimony p. 17; Rogelstad, Tr. Vol 2A, p. 39 et seq.

Without a map graphically showing the substations and relation to the transmission system and existing generation as it exists, it is difficult to understand how “it’s all connected” NoCapX attempted to enter a map from Mid-Continent Area Power Pool and was met with

unfounded and, based on displayed questions on the record, likely prejudicial claims of violation of federal Critical Energy Infrastructure Information (CEII) law. Vol 2A, p. 8-11. Without a map, how will the public know the full picture? It must be conveyed graphically. Ultimately, a crude substitute was made using previously entered exhibit 13, to become Exhibit 13A.[1]

In this area, electricity typically flows from the northwest to the southeast. Kline, Tr. Vol. 7, p. 51. The northwestern end of the CapX project is the Antelope Valley, ND to Maple River, ND, which is from the mine-mouth coal plants in North Dakota to Fargo, connecting in to the Phase I Fargo to Benton County line. Ex. 13, Slide 7 & Slide 16.. The express purpose of that line is, per CapX, "Remote Generation Outlet." This group of projects also provides the eastward link, going from LaCrosse to Columbia, in the middle of Wisconsin, at the far eastern edge of the CapX study territory. Id.

A map of the "Common Facilities" also helps to demonstrate that the Brookings line, which has a leg northward to connect to Big Stone II transmission, IS MISSING FROM THE LIST. In all of the CapX 2020 reports preceding this application, the Brookings line is NOT deemed necessary to build or a part of CapX 2020. In all scenarios studied for CapX 2020, the new Big Stone II coal plant was assumed to be interconnected. Rogelstad, Tr. Vol. 2A, p. 114, l. 5-24. Apparently, CapX 2020 was not deemed necessary for Big Stone II generation outlet. That has changed. Now, the Brookings line has been proposed, and the Big Stone II transmission is planned to interconnect to CapX, sharing the Hazel and the Minnesota Valley substations, but could also connect directly into the CapX Brookings line in South Dakota. Ex. 23, CapX 2020 Brookings Application Proposal and Upsizing Proposal; Ex. 28, Map of Big Sone II transmission; Rogelstad, Tr. Vol. 2A, p. 119, l. 15-22; Webb, Vol. 7, P. 69-70.

[1] Click link for Exhibit 13A, showing connecting points of "Common Facilities" and showing that Brookings line is not among those designated facilities.

Applicants admit that the Big Stone II coal plant transmission will connect with the CapX 2020 Brookings line where the line juts northward to Granite Falls into the Hazel and/or Minnesota Valley substations. Exhibit 23, CapX 2020 Twin Cities Brookings County 345kV Project, Depicting Application Proposal and Upsizing Proposal (showing line connecting Brookings line to Granite Falls – Hazel & MN Valley substations); Exhibit 28, Map of the Porposed Big Stone Plan and the Associated Alternatives with the Big Stone Plan (showing line connecting Big Stone to Granite Falls – Hazel & MN Valley substations). CapX 2020 proudly announced the "CapX West" projects, with Big Stone II transmission project as "the first element" of CapX. Public Comments, Muller, July 2, 2008, Public Comment Batch ___/, Sept. 6, 2006 letter from William Kaul, GRE.

Any coal, any generation, can utilize CapX 2020 transmission. In addition to the Big Stone II coal plant, there are other coal plants in the MISO queue driving this project, and which were considered, including the Young plant and smaller upgrade projects. Id, p. 120, l. 2-14. There are 3,441MW of coal generation in the MISO queue for interconnection, including 728MW in Minnesota, 600MW in South Dakota, and 1255.8 in North Dakota. Webb, Tr. at Ex. 60, MISO Response to NoCapX IR 3-8. "First queued, first served." Alders, Direct, p. 9, l. 18. The size of these lines is significant when compared with the size of the "need." CapX 2020 transmission lines are designed for high capacity, using bundled 954 Kcmil ACSS conductors, with a MVA rating ranging from 2050 to 2448. Ex. 76, Shedin Attachment J, Applicants Respnse to JI IR No. 3; Kline, Vol. 7, p. 57, l. 4. The CapX project is designed to be a high capacity transmission line. If "upsized" it will have essentially twice the capacity. What's clear is that there's something else driving this proposal, and that "something else" is mentioned

frequently by Applicants witnesses. The purpose of the MISO Midwest Market is to facilitate bulk power transactions and utilize the market to sell more electricity.

APPLICABLE LAW

The transmission lines proposed are each regarded as a "large energy facility" requiring a Certificate of Need, and which must meet the criteria for a Certificate of Need found in Minn. Stat. §216B.243, Certificate of Need for Large Energy Facility. The most important criteria puts a significant burden on the applicant for this project estimated to cost at least $1.7 billion:

> *Subd. 3a.* ***Use of renewable resource.*** *The commission may not issue a certificate of need under this section for a large energy facility that generates electric power by means of a nonrenewable energy source, or that transmits electric power generated by means of a nonrenewable energy source, unless the applicant for the certificate has demonstrated to the commission's satisfaction that it has explored the possibility of generating power by means of renewable energy sources and has demonstrated that the alternative selected is less expensive (including environmental costs) than power generated by a renewable energy source. For purposes of this subdivision, "renewable energy source" includes hydro, wind, solar, and geothermal energy and the use of trees or other vegetation as fuel.*

Minn. Stat. 216B.243, Subd. 3a (emphasis added).

Other factors for the Commission to use to determine whether a project is needed are found in the same statute:

> *In assessing need, the commission shall evaluate:*
> ***(1) the accuracy of the long-range energy demand forecasts on which the necessity for the facility is based****;*
> *(2) the effect of existing or possible energy conservation programs under sections 216C.05 to 216C.30 and this section or other federal or state legislation on long-term energy demand;*
> *(3) the relationship of the proposed facility to overall state energy needs, as described in the most recent state energy policy and conservation report prepared under section 216C.18, or,* ***in the case of a high-voltage transmission line, the relationship of the proposed line to regional energy needs, as presented in the transmission plan submitted under section 216B.2425;***
> *(4) promotional activities that may have given rise to the demand for this facility;*
> *(5) benefits of this facility, including its uses to protect or enhance environmental quality, and to increase reliability of energy supply in Minnesota and the region;*
> *(6) possible alternatives for satisfying the energy demand or transmission needs including but not limited to potential for increased efficiency and upgrading of existing energy generation and transmission facilities, load-management programs, and distributed generation;*
> *(7) the policies, rules, and regulations of other state and federal agencies and local governments;*
> *(8) any feasible combination of energy conservation improvements, required under section 216B.241, that can*

(i) replace part or all of the energy to be provided by the proposed facility, and
(ii) compete with it economically;
(9) with respect to a high-voltage transmission line, the benefits of enhanced regional reliability, access, or deliverability to the extent these factors improve the robustness of the transmission system or lower costs for electric consumers in Minnesota;
(10) whether the applicant or applicants are in compliance with applicable provisions of sections 216B.1691 and 216B.2425, subdivision 7, and have filed or will file by a date certain an application for certificate of need under this section or for certification as a priority electric transmission project under section 216B.2425 for any transmission facilities or upgrades identified
under section 216B.2425, subdivision 7;
(11) whether the applicant has made the demonstrations required under subdivision 3a; and
(12) if the applicant is proposing a nonrenewable generating plant, the applicant's assessment of the risk of environmental costs and regulation on that proposed facility over the expected useful life of the plant, including a proposed means of allocating costs associated with that risk.

... and under the Certificate of Need rules ...

7849.0120 CRITERIA.

A certificate of need must be granted to the applicant on determining that:
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 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.

II. CAPX 2020 FAILS TO DEMONSTRATE LOCAL LOAD NEED, THE FIRST OF THREE TYPES OF NEED

The specific criteria for a Certificate of Need that a local need claim could be based on are:

(1) the accuracy of the long-range energy demand forecasts on which the necessity for the facility is based;
(2) the effect of existing or possible energy conservation programs under sections 216C.05 to 216C.30 and this section or other federal or state legislation on long-term energy demand;
(5) benefits of this facility, including its uses to protect or enhance environmental quality, and to increase reliability of energy supply in Minnesota and the region;
(6) possible alternatives for satisfying the energy demand or transmission needs including but not limited to potential for increased efficiency and upgrading of existing energy generation and transmission facilities, load-management programs, and distributed generation;
(7) the policies, rules, and regulations of other state and federal agencies and local governments;
(8) any feasible combination of energy conservation improvements, required under section 216B.241, that can
(i) replace part or all of the energy to be provided by the proposed facility, and
(ii) compete with it economically;
(11) whether the applicant has made the demonstrations required under subdivision 3a; and

Local load is insufficient to justify size, type and timing of CapX 2020

Others will argue this more artfully, but NoCapX wants to emphasize that local load isn't just insufficient as "need," but it is wholly insufficient to justify a project of this immense size, both in area covered, in specification of the conductors, capacity and profit potential. The small levels of need claimed by the applicants, even if assumed, is not sufficient to justify this project..

CapX 2020, as proposed, is gross overkill for the minute local load need claimed, and with "upsizing," it's proportionately increased "upsized" overkill.

In each scenario, the local load claim overstates need, because it is using modeling assumptions that there is no local generation. Existing generation is assumed offline, and there is no new generation added. In this unrealistic scenario, the local load needs presumed for each 345kV line are still small and could be met in other ways:

Need	**Fargo**	**Brookings**	**LaCrosse**
Local load (MW)	Southern RRV 21 Ex. 1, App, p. 4.26 Alexandria 27-19 Ex. 1, App., p. 4.29 St. Cloud 172-230 Ex. 1, App. P. 4.34	None – see Application	Rochester 129-310 Ex. 1, App, p. 4.6 LaCrosse 132-152 Ex. 1, App, p 4.15

When the total of claimed need for the LaCrosse line in toto, at 261-462 MW, is compared against the thermal capacity of the line, at 2,050MW or if double circuited 4,100MW, it's clear that this is greatly overdesigned. This overkill belies the project need – instead, it's wanted for facilitating transactions in the MISO Midwest Market, addressed below.

The claimed need is so small that it could be easily met by other means, which others will expand upon, including local generation, Smart Grid, conservation, or updating forecasting!

Most importantly, the need is overstated. In addition to modeling performed with all local generation off line, infrastructure planned was not considered. For example, in Rochester, there are **FOUR** 161kV lines planned that were not taken into consideration, and which could well serve Rochester's needs. In addition, RPU, the Rochester utility, has planned for new generation at the West Side substation (Ex. 100, lower left corner), where two of those four lines will be connection to serve Rochester. Ex. 157, Report on the Electric Utility Baseline Strategy for 2005-2030 Electric Infrastructure, June 2005, Summary p. S-21-S-22. Specifically, this report

recommends actions that have been taken by RPU, resulting in the Westside Substation and transmission from it to serve the city:

> Consider taking options on approximately 100 acres of land within the RPU service territory near a high pressure gas line and transmission facilities under RPU control for installation of future combustion turbine capacity.
>
> …Around 2014, assuming that new generation is required in accordance with the long range plan and that generation has not been installed in connection with the transmission issue, begin the process for installation of approximately 50-100MW of natural gas-fired generation for an inservice date of 2018. The generation should be low apital cost with as low an operating cost as is consistent with expected operating capacity factors.

Id.

Local load as a reason for CapX is not supported by the evidence. The need, even if assumed, can be met in other ways, and these small amounts, if assumed in its entirety, cannot justify a project of this size.

III. CAPX 2020 DOES NOT DEMONSTRATE REGIONAL NEED, ONLY A REGIONAL "WANT"

The statutory criteria that address regional need are:

> ***(1) the accuracy of the long-range energy demand forecasts on which the necessity for the facility is based;***
> *(2) the effect of existing or possible energy conservation programs under sections 216C.05 to 216C.30 and this section or other federal or state legislation on long-term energy demand;*
> *(3) … **in the case of a high-voltage transmission line, the relationship of the proposed line to regional energy needs, as presented in the transmission plan submitted under section 216B.2425;***
> *(4) promotional activities that may have given rise to the demand for this facility;*
> *(9) with respect to a high-voltage transmission line, the benefits of enhanced regional reliability, access, or deliverability to the extent these factors improve the robustness of the transmission system or lower costs for electric consumers in Minnesota;*

CapX 2020 regional need claims are distinct from regional reliability claims.

> The second is really kind of the overall support for reliability. And again, this relates more in line with the Vision study in the sense of looking at long-term, the year 2020 load levels, and that these projects are common to having an adequate system in place to serve the load in the year 2020.

Rogelstad, Vo. 2A, p. 20, l. 10-15. This is not a need of Minnesota regulated utilities that is recognized under the statute as it does nothing for Minnesota consumers.

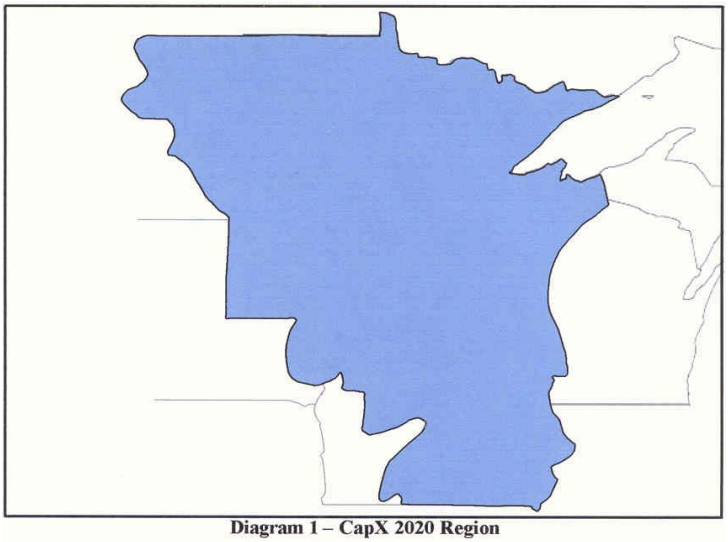
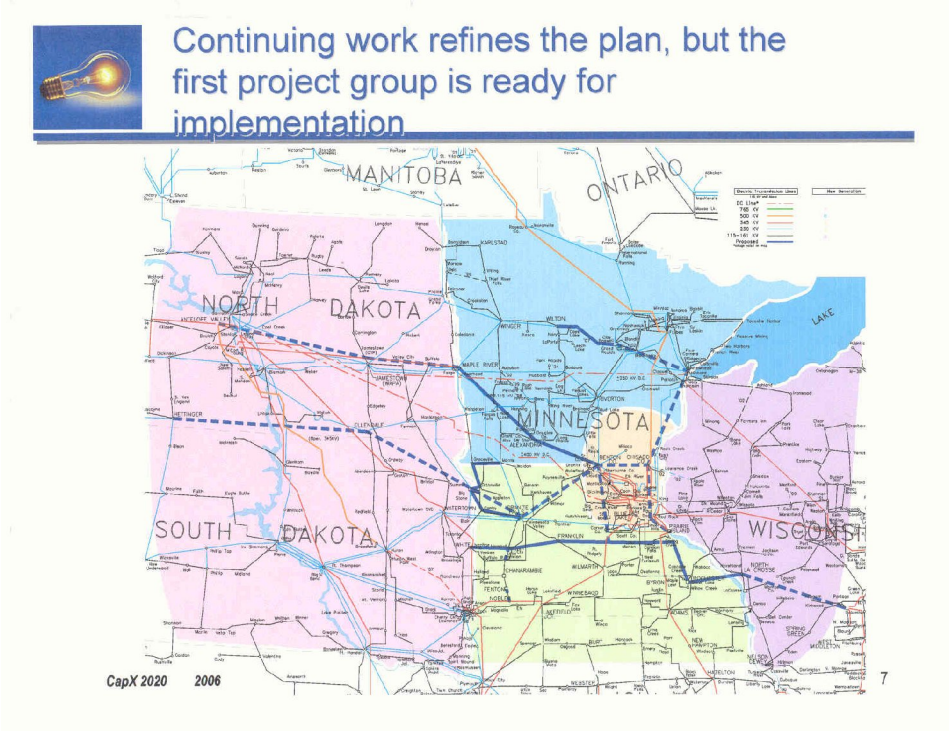


Diagram 1 – CapX 2020 Region

CapX 2020 is predicated on a claim of 4.500-6,300 MW demand increase by 2020 in the region. Ex. 1, CapX 2020 Application, App. A-1, p. 4.; Rogelstad, Vol. 2A, p. 28, l. 1-3. But by who? Xcel doesn't need it, its RFP docket has been closed. Ex. 156, Order Closing Docket 06-1518.

"The region" extends from the middle of the Dakotas, through Minnesota, down into most of Iowa, and into mid-Wisconsin and correlates precisely with the larger CapX map, a system showing Phase I and Phase II projects, beginning with dashed lines in the middle of the Dakotas, solid lines through Minnesota,



and dashed lines into central Wisconsin. Exhibit 13, CapX 2020 Power Point, p. 7.

The CapX region also has significant generation. In the CapX 2020 Technical update, 16,712MW is disclosed by the Applicants:

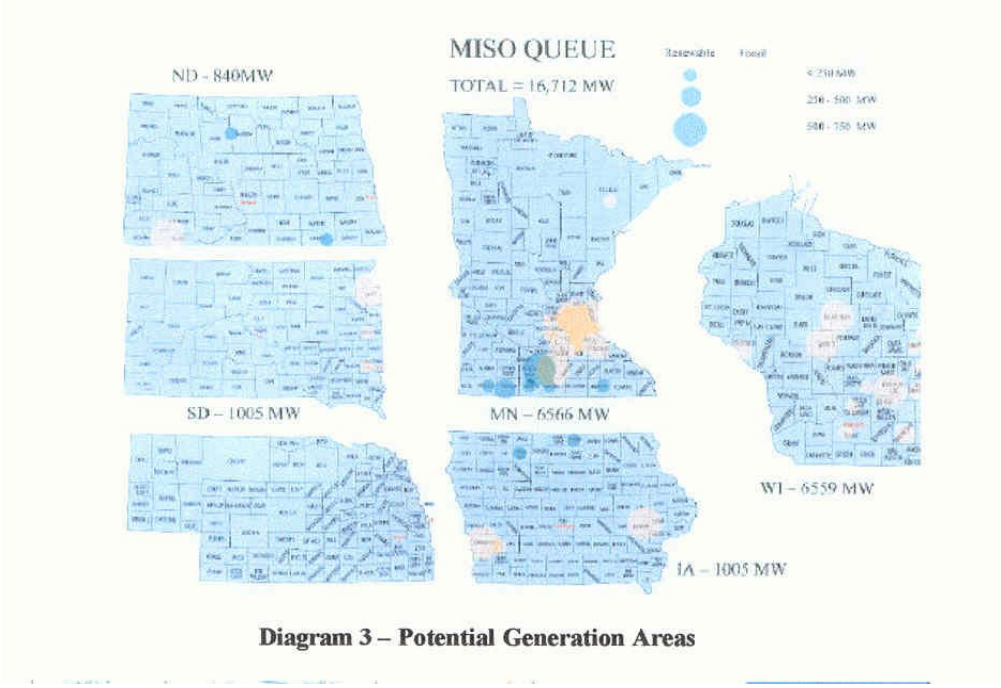


Diagram 3 – Potential Generation Areas

Ex. 1, Application, Appendix A-1,, CapX Final Technical Report, p. 11. However, these levels of proposed generation and their location, though a part of the application, part of the technical update of study progress, and other CapX documents, were not taken into account In the planning for CapX 2020 Rogelstad, Tr. Vol /. The locations of generation shown on the map reflects the distributed nature of the generation planned, which could and should be utilized.

The regional need claimed by CapX is a market driven desire, not a need recognized as a criteria for a transmission project. When asked ways transmission would serve market:

> A: …The third thing would be to build -- or, improve the system to allow that transaction to occur.
> Q And CapX would do that, would it not?
>
> A I suspect that it would, yes

Rogelstad, Vol. 2A, p. 25, l. 10-14.

There is some other impetus for transmission development in the region: The MISO Midwest Market is now up and running, enabling utilities to market their electricity and the "backbone" for market transactions has been developing for years, going back to MTEP 03. Ex. 58, p. 17. Wholesale transactions are not within the regulatory jurisdiction of the Minnesota Public Utilities Commission.

A primary focus of the MISO Midwest market is not in the public interest – it is a profit undertaking, with potential annualized to members ranging from $70 million achieved to $552 million theoretical maximum potential benefits in the June 2005 – March 2006 time period. Public Comment, Muller, Attachment, Independent Assessment of Midwest ISO Operational Benefits, p. 76, see also 77-79, Rochester, July 2, 2008(Batch 36-37). The MISO Midwest Market aims to displace natural gas generation with coal:

> RTO operational benefits are largely associated with the improved ability to displace gas generation with coal generation, more efficient use of coal generation, and better use of import potential. These benefits will likely grow over time as:
>
> …
>
> - Tightening environmental controls and the resulting great diversity in coal plant fleet variable operating costs will make optimization of coal plant utilization more important in future years.
>
> …
>
> - Transmission upgrades which could increase the geographic scope of optimization within the Midwest ISO footprint.

Public Comment, Muller, Attachment, Independent Assessment of Midwest ISO Operational Benefits, p. 14-15, Rochester, July 2, 2008(Batch 36-37). This benefit is the primary RTO operational benefit – this should not be taken lightly. The report goes on:

> We further not that major developments led by the Midwest ISO will likely increase both the potential and achieved benefits on a going forward basis. These developments include the introduction of the Ancillary Services Market which is currently under review by FERC and expected to begin operation in 2008, and regional transmission investment initiatives such as MTEP 06 which will bring

> $3.6 billion in transmission investments to market by 2011 and targets elimination of 22 of the top 30 constraints in the footprint.

Id, p. 15. $3 billion in transmission investments is confirmed by CapX. Ex. 12, p. 1, slide 3, p. 2, slide 6.

> 7849.0010 Subp. 24. Promotional Practices
>
> "Promotional practices" means any action or policies by an applicant, except those actions or policies that are permitted or mandated by statute or rule, which directly or indirectly give rise to the demand for the facility, including but not limited to advertising, billing practices, promotion of increased use of electrical energy, and other marketing activities.

IV. CAPX 2020 FAILS TO DEMONSTRATE NEED FOR GENERATION INTERCONNECTION, THE THIRD TYPE OF NEED

Applicants claim that CapX 2020 is necessary for generation outlet. Generation Interconnection is not a criteria for a Certificate of Need. In its application, CapX 2020 claims that it is anticipated that the Brookings line is needed, in part, for Generation Interconnection, and CapX does not associate generator interconnection with either the Fargo line or the LaCrosse line.

In its claims of need for generation outlet, Applicant fails to address 3,441MW or more North Dakota and South Dakota coal waiting in queue and whether that comports with state renewable energy policy. Transmission for generation outlet must take into consideration the type of generation it is providing an outlet for coal:

> *Subd. 3a.* ***Use of renewable resource.*** *The commission may not issue a certificate of need under this section for a large energy facility that generates electric power by means of a nonrenewable energy source, or that transmits electric power generated by means of a nonrenewable energy source, unless the applicant for the certificate has demonstrated to the commission's satisfaction that it has explored the possibility of generating power by means of renewable energy sources and has demonstrated that the alternative selected is less expensive (including environmental costs) than power generated by a renewable energy source. For purposes of this subdivision, "renewable energy source" includes hydro, wind, solar, and geothermal energy and the use of trees or other vegetation as fuel.*

CapX 2020 is not needed to implement Renewable Energy Standards because much generation can be sited locally, studies have demonstrated much wind can be sited in a dispersed manner without transmission. Ex. 149, Appendix K, Analysis of Off-Ridge Generation Additions. The closing of fossil plants and siting wind with other intermittent generation as backup has not been pursued, significant conservation has not been undertaken. Other parties will argue these points more thoroughly. Applicants logic is flawed in that when considering the impact of a Renewable Energy Standard on the need and ability of a particular project to interconnect to the grid, and in considering its claim that CapX 2020 was necessary to comply with RES, the applicants only took into account that additional renewable generation was necessary, but did not consider taking existing non-renewable generation off line, which would make room for renewable generation:

> Q So you just increased the generation, you didn't decrease generation anywhere?
>
> A And the purpose -- or for the perspective of the Vision study, yes, that's correct.

Tr. P. 90, l. 22-25.

This is contrary to typical engineering practice, where, when generation is added, generation is taken off line elsewhere:

> Q Now, typically in a -- let's go to a different type of study. In a typical -- let's say specific study, when you increase generation don't you also decrease it somewhere else?
>
> A Again, depending upon the type of study, yes, there are certain circumstances where that does occur.
>
> Q For example, C-BED, you did that there, increasing generation and decreasing the natural gas?
>
> A Correct.

Tr. P. 91, l. 1-9.

A desire for Regional Market Transfer is neither "Regional Reliability" nor justification for CapX 2020. The applicants 'need claim" raises market issues as rationale for CapX 2020 Phase I projects.

V. CAPX 2020 CANNOT STATE WHO WILL OWN PROJECT, HOW IT WILL BE FINANCED, AND THIS IS NOT IN RATEPAYER INTEREST

The financing and recovery scheme for this $1.7+ billion project is not clear. Appellants testified that they do not know how this project will be financed:

> Patel: She can discuss what the parties are, in general, contemplating as they move forward, as opposed to very specifics with regard to how these projects will be financed. That is all currently under negotiation, that is not information that – that we even understand at this stage.
>
> JUDGE HEYDINGER: Well, I suspect that presents some problems for the parties as they try to move ahead with cross-examination, Ms. Patel.

McCarten testimony, Applicant attorney Patel speaking, Vol. 6, p. 21, l. 2-10.

McCarten then testified:

> I believe the question that I asked to treatise this little discussion was does Xcel need to attract investment capital in order to build new power lines?
>
> I can answer generally that Xcel, as a company – Xcel Energy as a company does secure equity investment on the market. I can't answer specifically about these projects.

McCarten, Tr. P 24, l. 8-15:

What McCarten could answer regarding attracting investment capital was that they were presenting their investment opportunity at a (now defunct) Lehman Brothers CEO Energy Conference! Tr Vol. 6, p. 27.

McCarten could not address who or what the owners of the project would be, whether it would be transferred to a transmission only company, which is permitted under the 2005

Transmission Omnibus Bill, or was there any express document that the owner, whatever owner, would comply with the certificate of need. Id. p. 100-104.

McCarten was to testify for the applicants about the business arrangements between the utilities but she could not testify as to how development costs would be allocated. McCarten, Tr. Vol. 6, p. 17-19. However, that weighs differently for a utility since the passage of the 2005 Transmission Omnibus bill, which allows rate recover for "construction in progress."

> Subd. 7b. **Transmission cost adjustment.** (a) Notwithstanding any other provision of this chapter, the commission may approve a tariff mechanism for the automatic annual adjustment of charges for the Minnesota jurisdictional costs of new transmission facilities that have been separately filed and reviewed and approved by the commission under section 216B.243 or are certified as a priority project or deemed to be a priority transmission project under section 216B.2425.
> (b) Upon filing by a public utility or utilities providing transmission service, the commission may approve, reject, or modify, after notice and comment, a tariff that:
>
> (3) provides a current return on construction work in progress, provided that recovery from Minnesota retail customers for the allowance for funds used during construction is not sought through any other mechanism;
>
> (7) terminates recovery once costs have been fully recovered or have otherwise been reflected in the utility's general rates.

There are too many questions about ownership – a Certificate of Need should not issue until the owner of the project is named with specificity.

VI. MOES "ENVIRONMENTAL REPORT" IS INADEQUATE

a. Information from Applicants was not independently verified.

The information in the environmental report was provided by applicants. Minn. R. 7849.7040. However, this was not independently verified by MOES staff. Birkholz, Tr. at

7849.7030 ENVIRONMENTAL REPORT.

The commissioner of the Department of Commerce shall prepare an environmental report on a proposed high voltage transmission line or a proposed large electric power generating plant at the need stage. The environmental report must contain information on the human and environmental impacts of the proposed project associated with the size, type, and timing of the project, system

configurations, and voltage. The environmental report must also contain information on alternatives to the proposed project and shall address mitigating measures for anticipated adverse impacts. The commissioner shall be responsible for the completeness and accuracy of all information in the environmental report.

b. Alternatives were falsely restricted because CapX claims no alternatives provide the entire benefits of CapX

The rule is clear about what alternatives SHALL be analyzed:

> *Alternatives shall include the no-build alternative, demand side management, purchased power, facilities of a different size or using a different energy source than the source proposed by the applicant, upgrading of existing facilities, generation rather than transmission if a high voltage transmission line is proposed, transmission rather than generation if a large electric power generating plant is proposed, use of renewable energy sources, and those alternatives identified by the commissioner of the Department of Commerce.*

Minn. R. 7849.7060, Subp. 1(B). However, the Environmental Report Scoping Decision limited alternatives to the project to be considered, contrary to the rule, and eliminated many. The rule allows for additional alternatives to be identified by the Commissioner, but those specified SHALL be included, and they were not.

The Scoping decision eliminated from consideration "impacts of specific energy sources in addressing the project, such as carbon outputs from coal-generated facilities…" but the rules require analysis of use of a different energy source. Id. Nowhere in the Environmental Report is the source of energy for these transmission lines addressed. Ex. 5, Environmental Report. MISO admits that there are 3,441MW of coal generation in the MISO queue for interconnection, including 728MW in Minnesota, 600MW in South Dakota, and 1255.8 in North Dakota. Ex. 60,

MISO Response to NoCapX IR 3-8. Applicants admit that the Big Stone II coal plant transmission will connect with the CapX 2020 Brookings line where the line juts northward to Granite Falls into the Hazel and/or Minnesota Valley substations. Exhibit 23, CapX 2020 Twin Cities Brookings County 345kV Project, Depicting Application Proposal and Upsizing Proposal (showing line connecting Brookings line to Granite Falls – Hazel & MN Valley substations); Exhibit 28, Map of the Porposed Big Stone Plan and the Associated Alternatives with the Big Stone Plan (showing line connecting Big Stone to Granite Falls – Hazel & MN Valley substations); Webb, Tr. Vol. 5A, p. 69-70. CapX 2020 proudly announced the "CapX West" projects, with Big Stone II transmission project as "the first element" of CapX. Public Comments, Muller, July 2, 2008, Sept. 6, 2006 letter from William Kaul, GRE[2].

Alternatives such as conservation and DSM were rejected because they would not independently meet the entire 4,000-6,000MW of claimed need. Birkholz, Tr. Vol. 17B, p. 8-9. Rejection on this basis also is contrary to the state policy of use of renewable resource. Minn. Stat. 216B.243, Subd. 3a. The alternative of purchased power was similarly rejected because" the purchased power does not offset the need, that they need to accommodate 4,000 to 6,000 megawatts." Birkholz, Tr. Vol. 17B, p. 11.

Q In your testimony yesterday, too, you were talking about overlaying maps in C-BED. You were talking about overlaying maps of wind resource transmission substations. Do you recall that?
A Yes, I do.
Q As a part of that, did you also include in your overlaid maps locations of gas peaking plants on the map?
A I don't recall that we did.
Q Did you consider the use of gas transmission infrastructure and reservations as a way of incorporating more wind into the system?
A Specifically to the C-BED study?
Q In the C-BED study.
A No, we did not.
…

[2] PUC eFile: https://www.edockets.state.mn.us/EFiling/ShowFile.do?DocNumber=5554860

Q Okay. And so is it correct that in the C-BED study you didn't address use of gas peaking to combine with wind to make a dispatchable?
A The level of study that we did didn't go down to that level of detail. It was much broader, higher level study.
Rogelstad, Vol. 2A, p. 34, l. 1 – p. 36, l.8.

c. Necessary analysis of impacts omitted or insuficient

Under the rule, many specific issues are to be analyzed in the Environmental Report, and the Scope further specifies the contents of the ER. Minn. R. 7849, 7060; Exhibit 5, Environmental Report, Appendix A, p. 103-106, Commissioner's Scoping Decision.

Impacts to land based economies, human settlement, and socioeconomics are to be addressed, yet impacts on land based economics, human settlement and socioeconomics were not defined or quantified in any way. Minn. R. 7849.7060; Birkholz, Tr. Vol. 17B, p. 20-21; Exhibit 5, Environmental Report. Despite this deficiency, the ER summarizes socioeconomic impacts stating:

> Socioeconomic impacts resulting from construction of the Project would be primarily positive with an influx of wags and expenditures made at local businesses during the Project construction.

Exhibit 5, Environmental Report, p. 14. There is no basis for this statement.

"The environmental report must contain information on the human and environmental impacts of the proposed project associated with the size, type, and timing of the project, system configurations, and voltage." Minn. R. 7849.7030. The Environmental Report did not address impacts associated with the size, type, and timing of the project, system configurations, and voltage. The Environmental Report has not addressed the "upsizing" request to double circuit the CapX lines. Exhibit 5, Environmental Report.

The many river crossings received insufficient consideration. Although the ER declares that the river crossings "may be among the primary issues associated with each alternative," and

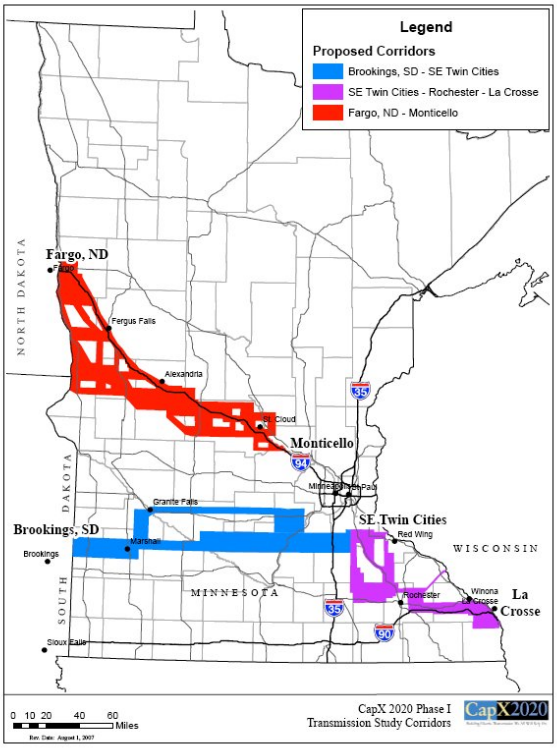
notes that "The primary means of mitigating these potential impacts is to avoid them in routing…" Exhibit 5, ER, p. 14; 39. Yet if CapX were to be built, the inherent number of river crossings is unprecedented. In the ER, river crossings are treated as visual issues, and there is no mention of impacts on land-based economies or socioeconomic impacts. See e.g., Ex. 5, ER, p. 44, in the "Land-based Economics" section, but addressing it as a "location of high visual sensitivity" and is silent as to economic impacts – there is no description of economic impacts or quantificaiton.

The Environmental Report lists eight potential river crossing maps, four of the Mississippi River and four of the Minnesota River:

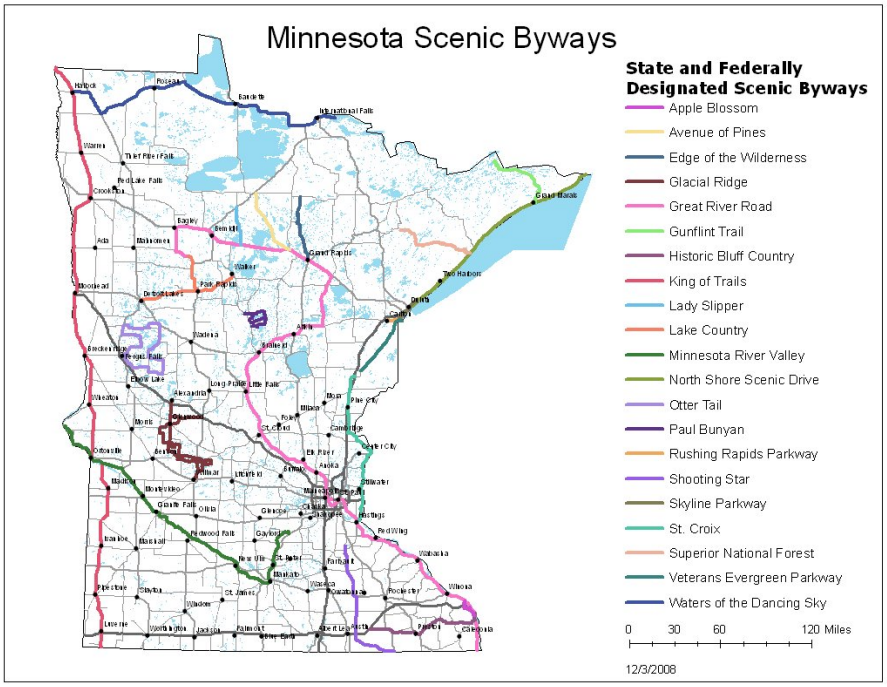
Map 5	Alma Crossing of Mississippi River
Map 6	Winona Crossing of Mississippi River
Map 7	Trempealeau Crossing of Mississippi River
Map 16	Minnesota Valley Crossing of Minnesota River
Map 17	Franklin Crossing of Minnesota River
Map 18	Helena Crossing of Minnesota River
Map 19	West Waconia Crossing of Minnesota River

Ex. 5, ER, Appendix B: Environmental Review Maps.

Not featured in maps are crossings of the Cannon River, White Water River by the Hampton to LaCrosse line. There is no featured map showing a Red River crossing by the Fargo to Benton County line.



Compare the map of proposed CapX 2020 corridors with a map of the Minnesota Scenic Byways, not included in the Environmental Report. → → →



The National Scenic Byways and Explore Minnesota have both developed programs around the Scenic Byways of Minnesota that will be affected by the CapX 2020 transmission project.[3]

Why are the Scenic Byways important, and why should the Environmental Report address the impacts of CapX 2020 on the Scenic byways? As above, it's apparent that the project could intrude on the scenic byways at many points, directly and indirectly.

The State of Minnesota has designated twenty-two (22) select roadways as scenic byways. Together they encompass more than 2,800 miles of statewide scenic routes ranging in length from a short 9-mile scenic byway to the Great River Road covering 575 miles. Six (6) of

[3] National Scenic Byways Program http://www.byways.org/
Explore Minnesota Tourism Scenic Byways Page One
http://exploreminnesota.com/experiences/byways/index.aspx?gclid=CKfD9ZPaqZcCFQ8QagodL1nKjw
Explore Minnesota Tourism Scenic Byways Page Two
http://exploreminnesota.com/experiences/byways/drives.aspx

the Minnesota byways are also federally designated as National Scenic Byways, but all 22 byways fall under the National Scenic Byways Program, which is part of the U.S. Department of Transportation, Federal Highway Administration. A comparison of CapX maps with the Minnesota Scenic Byways map, as above, demonstrates that multiple scenic byways will be impacted by the project and yet the MOES and Applicants have ignored assessment of environmental harm to the byways. See Public Hearing Transcript, Tab 19, Rochester, 7:00 p.m. July 2, 2008.

The Minnesota Scenic Byways Commission, comprised of four Minnesota agencies — the Minnesota Office of Tourism, the Minnesota Historical Society, the Minnesota Department of Natural Resources and the Minnesota Department of Transportation — provides management assistance and promotion of the 22 Minnesota scenic byways. The Minnesota Scenic Byways Program, and each individual scenic byway, is an integral part of the more than $12 billion annual tourism business in the state. The importance of scenic byways to local economies cannot be overstated and scenic intrusions that are visible from those byways can cause irreparable harm to communities that depend mostly on visitors and tourism income.

The National and Minnesota Scenic Byways programs are established to recognize, preserve and enhance selected road corridors that are unique, based on the recognized existence of six (6) intrinsic qualities, including archaeological, cultural, historic, natural, recreational and scenic qualities along the scenic byway route.

Each Minnesota scenic byway is managed to promote public uses, recreation and tourism opportunities and to promote community economic development. Economic development along byway routes increasingly depends on whether communities are successful in maintaining scenic integrity of the byway route and can protect byway viewsheds from unwarranted scenic

intrusions that quickly erode income from visitors. Given the wide range of choices of locations travelers can choose for travel, recreation and to spend leisure dollars, they simply will not return to an area that has lost its natural and scenic character.

Visible overhead transmission lines have been assumed to cause environmental harm wherever they are located. (See *People for Envl. Enlightenment and Responsibility (PEER), Inc. v. Minn. Envl. Quality Council*, 266 N.W.2d 858 (Minn. 1978). Visible transmission lines along and crossing scenic byways, (in this case multiple byways,will cause explicit environmental harm. Scenic intrusions into scenic byway viewsheds from high voltage transmission lines will certainly cost communities income that cannot be replaced in local economies that rely almost solely on tourism. The CapX Environmental Assessment fails to account for any environmental harm to Minnesota's scenic byways. The Environmental Assessment is inadequate and has failed to assess environmental, scenic and economic impacts to byway communities and to scenic byways that comprise the Minnesota Scenic Byways Program.

VII, NO CERTIFICATE OF NEED SHOULD BE ISSUED

CapX has not met its burden of proof. Local need, regional need and generation interconnection have not been demonstrated, and the ownership of this project is not declared. No Certificate of Need should be issued.

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