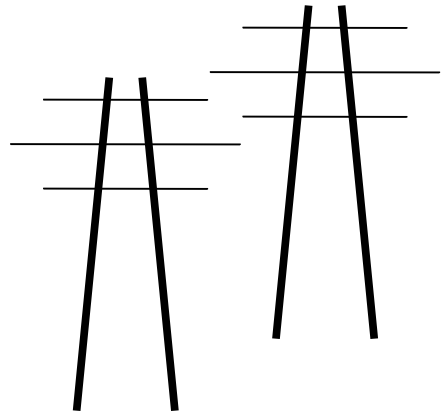


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February 26, 2010

David Birkholz
Energy Facilities Permitting
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85 – 7th Place East, Suite 500
St. Paul, MN 55101

via email: david.birkholz@state.mn.us

RE: DEIS Comments
CapX 2020 – Phase I – St. Cloud to Monticello

Dear Mr. Brikholz:

Thank you for the opportunity to comment on the DEIS for this part of CapX 2020.

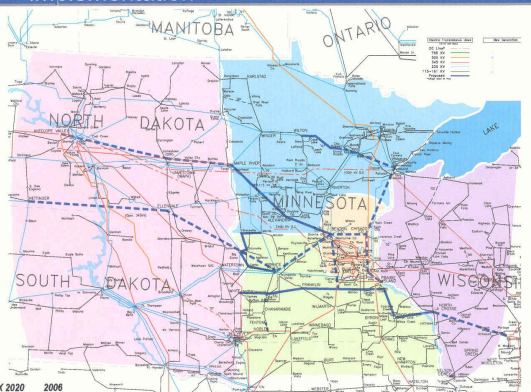
The common name for this project is a misnomer – electricity would flow from St. Cloud to Monticello, not Monticello to St. Cloud – the name should be St. Cloud to Monticello.

Elementary laws of physics belie fact that the direction of electrical flow is contrary to the name of this route. That should be corrected and public perception should thereby be corrected.

The EIS must address impacts of entire CapX 2020 Phase I as granted a Certificate of Need -- It's all connected



Continuing work refines the plan, but the first project group is ready for implementation



As you know, CapX 2020 Phase I is the largest transmission project in the history of the State of Minnesota, over 600 miles long and a cost approaching \$2 billion. It is false compartmentalization to claim that only the St. Cloud-Monticello portion of the Capx 2020 Phase I proposal is at issue for this environmental review – the entire project as proposed is subject to review as a phased and connected action, a part of a whole.

The EIS must address impacts of entire CapX 2020 Phase I as granted a Certificate of Need -- It's all connected

The CapX 2020 project segment granted a Certificate of Need northwest of the Metro was the Fargo to Twin Cities project, not St. Cloud to Monticello.

- The St. Cloud-Monticello EIS must address the phased and connected project that is the Fargo-St. Cloud transmission line. As you know, the application for routing of this Fargo-St. Cloud project has been received and is moving forward. It is planned, applied for, and NOT speculative.

The EIS must address phased and connected transmission projects

- The St. Cloud-Monticello EIS must address the “phased and connected” projects revealed in Xcel/GRE 4/3 Press Release (Attachment A) and the MTO Transmission Plan – the three projects in the Dakotas connecting with the Fargo terminus of this project have a direct impact on the impacts of this connected line. This group of projects is planned and not speculative.

Figure 1 - Map of Corridor Upgrade and RES Update Projects



CapX 2020 was developed as a whole, applied for as a whole and Certificate of Need granted as a whole.

CapX 2020 was studied and developed as a whole¹. This map, Attachment A, is from a CapX 2020 power point presentation to MAPP NM-SPG planning group on June 14, 2006. The blue solid lines are “Phase I,” applied for in the Certificate of Need proceeding before the MN PUC, order granting Certificate of Need May 22, 2009. The blue dotted lines are future lines, some of which were announced April 3, 2009. Attachment B is the April 3, 2009, press release regarding those lines.

Table 4. Summary of Vision Plan

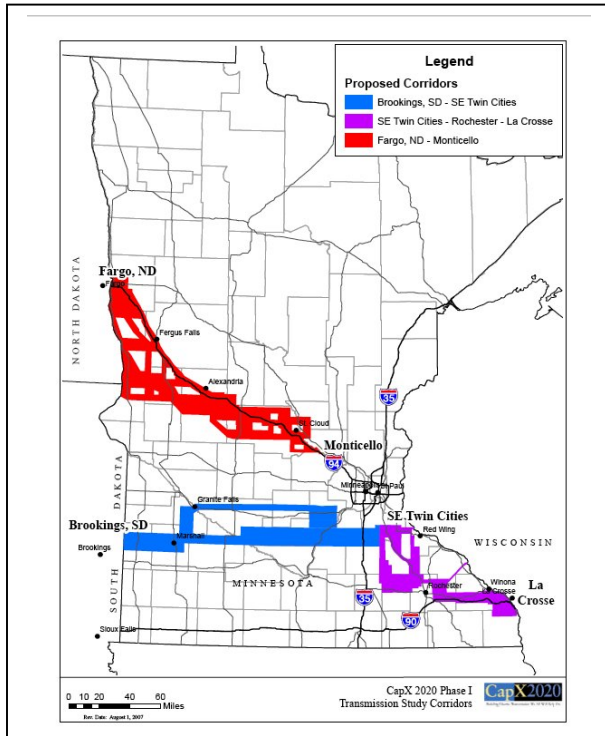
Facility Name				
From	To	Volt (kV)	Miles	Cost (\$M)
Alexandria, MN	Benton County (St. Cloud, MN)	345	80	60
Alexandria, MN	Maple River (Fargo, ND)	345	126	94.5
Antelope Valley (Beulah, ND)	Jamestown, ND	345	185	138.75
Arrowhead (Duluth, MN)	Chisago County (Chisago City, MN)	345	120	90
Arrowhead (Duluth, 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.

A copy of this chart above is an integral part of the Application, “Technical Report” and record in the CapX 2020 Certificate of Need proceeding before the PUC. The Antelope Valley-Jamestown-Maple River (Fargo)-Alexandria-Benton County line is listed in the 2005 Biennial

¹ See CapX 2020 Certificate of Need Application, Appendix A-1, available online at: [CapX2020 Technical Update: Identifying Minnesota's Electric Transmission Infrastructure Needs \(October 2005\)](#)

Report filed by Transmission Utilities (p. 36); the CapX 2020 Certificate of Need Application, App. A-1, Technical Update October 2005, and the CapX powerpoint update, June 14, 2006. Over and over and over, the Antelope Valley-Benton County line, the Minnesota part of which is Maple River-Benton Co. is presented as just one part of an inextricably linked inseparable network of transmission lines..



The RUS EIS must address impacts on river crossings of the Mississippi River and National and Minnesota Scenic Byways

As with the Brookings CapX transmission line, the Monticello routes would cross the Minnesota Scenic Byways, in this case the Great River Road.

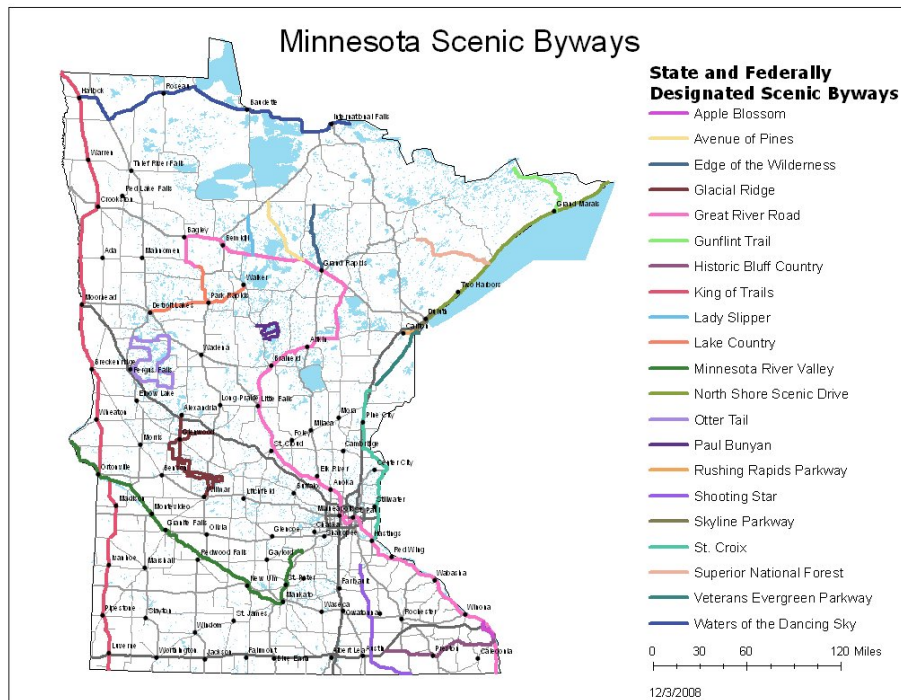
There is a likelihood that the Great River Road would lose its “Scenic Byway” designation if defaced by transmission lines.

The potential for economic impact must be specifically quantified. The state of Minnesota receives over \$10 million annually for its National Scenic Byways, and this number must be addressed not only in the section on Aesthetics, but in the Socioeconomic Impacts section. Coverage of these economic impacts

must receive separate attention in the appropriate category. **USE NUMBERS!**

The state’s Scenic Byway designation may also be at risk. This would also mean loss of an important resource and loss of funding. These impacts must be addressed in the appropriate categories, with socioeconomic impacts disclosed with specificity.

Even if routed away



from the Scenic Byways, the height of the towers would have an impact on the Great River Road, and any impacts must be mitigated.

Project Purpose

Statements of “project purpose” such as that on p. 1-2 should state “claimed” or “purported” rather than parrot applicants statements.

Undergrounding

Undergrounding is discussed generally on p. 63. It starts off with an unreasonable limitation:

Underground lines are a viable transmission construction option where there are significant aboveground constraints that would make overhead transmission line construction difficult or impossible.

- A full analysis of underground options, including location, configurations and cost, for all proposed river crossings should be included in the EIS. If there are other non-aerial options that are not underground, these should be analyzed as well.
- A full analysis of underground options, including location, configurations and cost, should be considered for all densely populated areas. If there are other non-aerial options that are not underground, these should be analyzed as well.
- Underground lines are viable independent of “significant aboveground constraints.” This statement should be corrected.
- The discussion of undergrounding does not address the Comments of US Fish and Wildlife and others regarding “non-aerial” crossings of the Mississippi River.
- Applicants repeatedly state that they cannot underground 345kV lines. This is false. Applicants could, they just do not want to underground, and will if ordered or if an agreement is reached, such as that in the Chisago Transmission Project docket. The prior undergrounding experience of applicants should be incorporated into the EIS.
- A recent report, released February 24, 2010, sheds light on underground, where undergrounding was found to be feasible and not as expensive as previously thought. This report, from the Alberta Electric Service Operator is available online², and the findings of this report regarding undergrounding of high voltage transmission must be incorporated into the EIS. See Attachment B, p. 28-32 and Table 45, §12.2, [Technical Report by CCI: Feasibility Study for 500 kV AC Underground Cables for Use in the Edmonton Region of Alberta](#) [Posted: February 24, 2010]. Underground

² The iterations and comments and the full report are available on the AESO Feasibility Study for 50kV Underground Cables page: <http://www.aeso.ca/transmission/20001.html>

was also considered for part of the Mid-Atlantic Power Pathway, a 500kV transmission line, since suspended by PEPCO, the project promoter.

- Section 5.6.3 Mitigation states on p. 107 and 108 that “undergrounding could be considered.” This is insufficient. Consider it, and compare impacts and costs with aerial crossings.
- In the narrative, the narrative regarding EMF, p. 5-144, states that underground lines still generate electric fields. Specifics should be disclosed in this narrative, because the amount detectable above ground is diminimus compared to above ground.

Impacts analysis is skewed

Because the “route” in question is but a SMALL part of the Fargo to Benton County route that was granted a Certificate of Need, impacts are skewed. For example, river crossings are viewed through a microscope rather than a larger view showing all the impacts of the full transmission line, and full range of river crossings by this one connected project are not considered, i.e., crossings of Mississippi AND Red River, etc.. This skewing must be addressed.

Because the “route” in question is but a SMALL part of the Fargo to Benton County route that was granted a Certificate of Need, costs are skewed. Undergrounding part of the route, if considered as mitigation, would have a much higher percentage of cost than if the entire line were considered. Undergrounding a small part might increase costs by 25-30% of the full line, as opposed to only 5% if the cost of the entire project were considered. This skewing must be addressed in the EIS.

Impacts analysis is not sufficient

Generally, the impacts analysis is not sufficient and impossible to compare the various alternatives.

- There is not sufficient quantification to compare impacts.
- Impacts are not sufficiently specific to identify.
- Impacts should individually be labeled as temporary and/or permanent and weighted accordingly.

Cost information and analysis is insufficient

The narrative text and tables, cost “matrix” in Appendix I, provides only estimated totals and no detail whatsoever.

- The chart provided does not give enough information to determine why one line would cost more than another, other than apparent length.
- Other considerations add to cost, for example, turning corners requires more robust structures and hence, higher cost. Structures capable of double circuiting are more expensive. Foundations in sandy soil or wetlands could require additional engineering

and materials, and cost more. Structures for large spans must also be more robust and cost more. These considerations must be addressed, the cost estimates must be itemized, etc., in sufficient detail to compare costs of the various alternatives.

- Staff analysis of project costs must also include costs such as the cost of loss of Byway funding, costs of mitigation, etc.
- Costs of mitigation must be addressed up front to determine adequacy, if not, impacts may be left unmitigated and who will pick up the tab?
- RoW acquisition costs vary widely and should be addressed.
 - Routing up against RoW means cutting RoW acquisition costs almost in half where only 75 or so feet needs to be acquired.
 - Railroad RoW use is sometimes leased. Lease cost should be factored in.
 - Buy the Farm estimate should be included in cost.

MnDOT concerns must be considered and weighted

MnDOT has a Policy of Utility Accommodation and statutory restrictions on sharing of Rights of Way. In the Brookings CapX environmental review and routing, the MnDOT concerns are likely determinative in routing, the issues raised such as scenic easements and Right of Way sharing constricted the range of routing alternatives. These concerns should have been addressed earlier in the process so that only realistic routes would be reviewed. In the Brookings docket, the Preferred route contained a LeSueur crossing that given DOT comments, was clearly not realistic and much time was wasted on its review. Worse, the Belle Plaine route did not get adequate attention and there were no hearings in that area. DON'T MAKE THE SAME SERIOUS ERROR IN THIS DOCKET.

- Specifically identify areas where planned route is not feasible due to DOT considerations.
- Remove infeasible routes from consideration.

Conductor Blowout

Conductor blowout is a factor in DOT corridor sharing that was not adequately addressed by applicants or the EIS in the Brookings docket. A birds-eye blowout diagram, such as the one provided in Poorkers Post Hearing packet should be included in the EIS. However, the birds-eye blowout diagram was inaccurately drawn and measurements were from the centerline, not the connecting point of the conductor, and this should be corrected.

Ozone information

The appendix contains information regarding ozone levels and a letter from the MPCA regarding Minnesota's potential status as an attainment area. This line, the St. Cloud to Monticello line, as part of the Antelope Valley-jamestown-Maple River (Fargo)-Alexandria-Benton Conty line of the CapX 2020 Vision, will enable increased emissions in North Dakota that will contribute significantly to the ozone levels in Minnesota. This ozone impact must be addressed.

Electromagnetic field – charts in EIS are way off

Electromagnetic fields are grossly underestimated in this EIS, as they were in the Brookings EIS. Table 5-62 presumes amperage levels that are so low as to be laughable – **the project won't even be operational by 2011**, yet this is the year chosen. Of course amps are low. This issue was raised in the Brookings line, and this EIS reflects the same error. **MOES SHOULD CONSIDER ITSELF ON NOTICE THAT THE AMPERAGE VALUES PROVIDED BY APPLICANTS REQUIRE INDEPENDENT VERIFICATION AND REVIEW AND THE MODELING MUST BE PERFORMED AGAIN.** See Attachment C and D, from the SW MN 345kV project and the Certificate of Need for CapX 2020. The lines are double circuited or single circuited 345kV 954kcmil ACSS twin-bundled conductor, with thermal limit amperage range from Attachment A's 1729-1745 amps (single circuit), or Attachment B's 3700 amps (double circuit). Accepting utility information without independent verification and independent calculation based on conductor specifications is insufficient and irresponsible.

- Recalculate magnetic field levels for thermal limit amperage range.
- Recalculate magnetic field levels for a year that the project will be operational, and five years out, i.e., 2014 and 2019.
- Revise charts to include both utility provide amperage and thermal limits range.

Noise

The noise section, §5.22, does not address substation noise with any specificity, nor does the application. In the Arrowhead transmission project, a 345kV line, the substation was found to have potential to be “annoying” and although levels were modeled and expected to be just under the MPCA guidelines, mitigation was ordered in the Exemption Order.

- Establish specifications for all substation equipment, including transformers, switching gear, etc.
- Perform noise modeling based on equipment specifications
- Include chart with substation noise modeling in the FEIS
- Address substation mitigation techniques, including but not limited to a contained building, walls, berms and evergreen plantings.

Substations

Section 3.3 of the DEIS addresses substation, but contains no information about design, whether either are enclosed or open, fenced, ringed with evergreens, nothing whatsoever. There is no drawing or computer simulation.

The EIS should contain:

- Substation physical description (not just description of equipment), line drawing, plot plan, and drawing showing completed substation including fence, building, trees, etc.
- As above, noise modeling
- Review of lighting plan

Substation lighting

Light can be regarded as pollution. Frequently substations are lit up like a spacestation or refinery. There is no information in the EIS about substation or other lighting for this project. The EIS must include a lighting plan and an analysis of lighting impacts.

Property Values

Where an EPRI report states that property values could be affected by up to 20%, that report should be taken with great weight. Section 5.2.2 - It is not reasonable to make a blanket statement that there are no anticipated effects on property values.

The EIS should contain:

- A range of property devaluation scenarios
- Socioeconomic discussion should address impacts of devaluation to individual landowners
- Socioeconomic discussion should address impacts of devaluation to tax base of local governments
- Costs above should be addressed in the project cost section of the EIS.

Impingement of future development

A transmission line can be a barrier to development. The EIS should include:

- Examine the Comprehensive Plans of affected counties, cities and townships
- Identify areas within expansion zones of cities, using maps to show impacts.
- Address impacts on existing and planned development plans
- Address costs of impingement of future development and include in cost section of EIS

Inadequate Notice of Intervention window and various avenues of participation

MOES did not provide sufficient notice to affected parties and local units of government regarding the opportunity to Intervene and rights and responsibilities of Intervention.

Thank you for the opportunity to submit this Comment.

Very truly yours,



Carol A. Overland

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Enclosures:

Attachment A – April 3, 2009, press release, showing extensions from ND connecting at Fargo and to WI

Attachment B – [Technical Report by CCI: Feasibility Study for 500 kV AC Underground PCables for Use in the Edmonton Region of Alberta](#) [Posted: February 24, 2010]

Attachment C – Line Specifications including ACSS 954kcmil ACSS Conductor – SW MN 345kV Docket 01-1958, Application, Exhibit 35, Appendix 7.

Attachment D – Line Specifications including ACSS 954kcmil ACSS Conductor, CapX Certificate of Need, Docet 06-1115, Exhibit 76-MCEA-IR3.