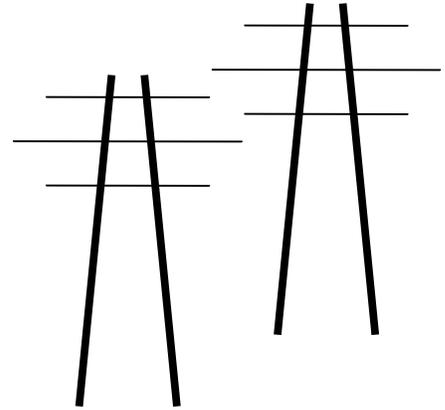


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April 6, 2011

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RE: Scoping Comments of Carol A. Overland
Hiawatha Project Environmental Report

Dear Mr. Storm and Dr. Haar (and eFiling list):

Thank you for the opportunity to submit ER Scoping Comments on the Hiawatha transmission project.

These Comments on my own behalf, as an individual, and not representing any party. I am utilizing the Scoping Comment Affidavit of Bruce McKay, P.E., submitted earlier today regarding magnetic fields.

Much of the Comments below are taken from my Comments and testimony submitted earlier in the Hiawatha Project routing docket. I'm grateful that the Certificate of Need is required, and am distressed that none of the Intervenor are participating in this docket, and distressed at what their lack of participation may reflect.

As an attorney who has worked on utility infrastructure cases for 15 years now, in over a dozen dockets in five states across the country, and seeing patterns of "infrastructure for private purpose" couched as public need, it is very disturbing to watch Xcel claim that its Hiawatha

Project that is proposed through the heart of the neighborhood that was my home for 20 years is needed. This Certificate of Need review is just beginning, need has not been demonstrated, need thus far expressed has been a distribution need, and if any need can be demonstrated, it can be met through means other than a transmission need.

The Hiawatha Project is not needed for the reasons stated by the Applicants, and is grossly oversized and of the wrong type for the claimed need.

The Environmental Report must address undergrounding, and address specifically what building an overhead transmission line means, from review of the system alternatives to transmission to literally building an overhead transmission line through a heavily populated area. This project, if permitted, should be permitted only if built underground. Overhead construction through this densely populated area is not feasible, nor is securing easements for overhead construction that are wide enough to protect the public health and safety. If permitted, it should be permitted only underground along a feasible route. Costs of undergrounding should be borne by the full range of Xcel customers in its full customer base in Minnesota, as the Facilities Surcharge Rider is applicable only to distribution, and this is not a distribution line. Further, as noted by Hennepin County in the routing docket, undergrounding is not a requested service, but standard service, to permit transmission desired by Xcel.

1. THE ENVIRONMENTAL REPORT MUST ADDRESS DISTRIBUTION SOLUTIONS

Xcel has a distribution problem that requires a distribution solution, not a transmission solution. A transmission solution will not address the old and inadequate distribution system that is between any transmission line and substation and Xcel's customers complaining of power quality problems.

2. THE ENVIRONMENTAL REPORT MUST CONSIDER IMPACTS OF DISTRIBUTION MODIFICATIONS IN THE LAST DECADE ON NEED FOR THIS PROJECT

Xcel notes in its application that it has been making distribution system improvements from 2001-2008. These improvements should be taken into account in the ER on the overall need.

3. THE ENVIRONMENTAL REPORT MUST TAKE PREVIOUS TRANSMISSION PLANNING STUDIES INTO ACCOUNT

Prior reports, including the 2007 Biennial Transmission Study, reveal increased capacity at the Aldrich substation, that the connection between the St. Louis Park substation and the Aldrich Substation has been upgraded, providing more capacity at these substations, and a "second phase of the plan – reconductoring the line to a higher capacity – will be further investigated when system planning studies demonstrate a need. Exhibit A, 2007 Biennial Transmission Report, §7.5.2.

- With this upgrade, and another planned, why would Xcel propose a transmission line extending into the Aldrich substation?

4. THE ENVIRONMENTAL REPORT MUST DETERMINE THE TYPE OF NEED, WAYS IT CAN BE MET, AND THE IMPACTS OF MEETING THAT NEED THROUGH VARIOUS SYSTEM ALTERNATIVES

Xcel claims the need is for ____MW (your number here, it varies!).

- Identify the need with specificity – there may be different types of need.
- Identify the many ways that the need can be met.
- Identify the impacts of those means of meeting the need.
 - i. Compare impacts of transmission with meeting need by other means
 1. distribution upgrades
 2. lower voltage line
 3. distributed generation in immediate area
 4. on site generation to alleviate power quality problems
 5. on site generation to insure against black or brownouts
 6. consider existing remediation, i.e., all hospitals already have on site emergency generation!

5. THE ENVIRONMENTAL REPORT MUST QUANTIFY THE AMOUNT OF NEED, EXPRESSED IN MW

Xcel repeatedly states that this project is for a projected 55MW need, that it wants to build for 120MW, but the configuration of the transmission alternatives for a much larger capacity. Xcel's own application states that the project would provide more than twice the capacity claimed to be needed:

Phase one of the proposed configuration will provide an additional 120 MW of load serving support in the south Minneapolis area.

CoN Application.

6. THE ENVIRONMENTAL REPORT MUST ADDRESS SAIDI, SAIFI AND CAIDI REPORTS AND THEIR REFLECTION OF NEED

In Routing Testimony, Xcel's Scott Zima testified that the claimed "need" based on "overloading and outages" is not supported by Xcel's distribution reliability indices filed with the state, the SAIDI, SAIFI and CAIDI reports. Minn. R. 7826.0500. This is another indication that the claimed need, and the size, type and timing of the Hiawatha Project, is in question. The distribution reliability information measurements (CAIDI, SAIFI and SAIDI) provided by Xcel is available for review. If the project were needed, one would think that Xcel would provide these records (system reliability/power outage reports) for the Hiawatha Project record. If it were needed, if the distribution system were in as dire shape as Xcel claims, Xcel should be able to show that the CAIDI, SAIFI, and SAIDI distribution reliability reports demonstrate that significant power quality/ reliability problems exist.

The SAIDI, SAIFI and CAIDI reports from Xcel have been filed,¹ and excerpts show that outages affecting South Minneapolis are neither frequent nor extreme (“Minneapolis” reports pulled out, omitting those connected with northern substations -- the specific data identifying substation feeders is deemed “non-public” and not accessible even with confidentiality agreement, per Xcel). Exhibit B, Xcel’s SAIDI, SAIFI and CAIDI reports, Docket 02-2043; Exhibit C, Distribution Outage Reports, Docket 03-310.

If the SAIDI, SAIFI and CAIDI reports do not show outages, then what is the need driving the Hiawatha Project?

7. THE ENVIRONMENTAL REPORT MUST ADDRESS IMPACTS OF MEETING THE SPECIFIC MW NEED AND IMPACTS OF OVERBUILDING

Xcel’s stated specs of the line, 115kV with a 795kcmil single conductor, and other 115kV lines’ ratings show that the line could handle much more. When questioned at the Routing docket Public Hearing regarding the ratings of the line and amperage, Jason Standing testified that there would be more in the lines than the 140MVA for the Aldrich substation or the 150MVA of the Hiawatha substation. Transcript, Public Hearing, Standing questioned by Overland. The St. Louis Park-Aldrich upgrade at 115kV was to 310 MVA. Exhibit A, 2007 Biennial Transmission Report, §7.5.2. This 310 MVA rating is consistent with specs utilized in other proceedings. In the SW Minnesota 345kV proceeding (01-1958), Xcel provided a chart in its Application that showed the ratings of various configurations of lines, including a 115kV line with a 795kcmil single conductor, which on that chart also has a rating of 310 MVA for a single circuit. A double circuit line has essentially twice the potential capacity. Exhibit D, Computation of SAC Overhead Conductor Ampacities (from Xcel’s SW Minnesota 345kV Application, Appendix 7, PUC Docket 01-1958). Xcel’s claimed need of 55MW or stated provision of 120MW of capacity could be served with a 69kV line. *Id.* The size and type of this project, as proposed does not comport with Xcel’s stated need. This line is sized and is of a type for something much larger.

If the line is so much larger than what is claimed to be needed, then what is the need driving the Hiawatha Project?

The purpose of the line is also misleading. This is a radial line, with both circuits on the same structures, subject to a single event contingency. which in terms of reliability, provides no benefit. As noted by Larry Schedin:

...tornado damage to the proposed 115kV double circuit lines as well as damage to the distribution system would not allow switching the distribution customers to alternate feeders thereby leaving critical Midtown area customers without electric service for unacceptable time periods.

¹ The full SAIDI, SAIFI and CAIDI reports are available online in the PUC’s eDockets, search for Dockets 02-2034 and 10-310.

Schedin Surrebuttal, p. 2. This inexplicable use of a double circuit radial line does not provide reliability benefits, the reliability benefits that would be provided by a connected circuit or undergrounded radial line.

Findings of Fact must identify need for this project, or lack thereof, with specificity.

8. THE ENVIRONMENTAL REPORT MUST CONSIDER PHASED AND CONNECTION ACTIONS AND ALL THAT IS XCEL PLANNING

In its studies, in the Transmission Plan, and in its Routing Application for the Hiawatha Project, Xcel states clearly enough what it is planning:

In addition, the proposed Hiawatha Substation could be expanded in the future to accommodate additional transmission facilities, potentially a 345 kV line, if necessary to meet community load-serving needs.

Routing Application, p. 17.

That is in agreement with their stated plans at the MAPP transmission planning group in July of 2008 and the South Minneapolis Electric Reliability Project study by Xcel's witness:

7.1.4. South Minneapolis

Mr. Standing, XCEL, presented the South Minneapolis Electric Reliability Project (SMERP) study. Mr. Standing stated 4 options were studied. The preferred option includes a new 345 kV line in-service in approximately 2013-2020 from the New Hwy 280 345/115 kV substation to the New Hiawatha substation.

Exhibit E, DRAFT NM-SPG Meeting Minutes, July 24, 2008.

The Preferred Plan is the Hiawatha345 Option, which adds the following facilities:

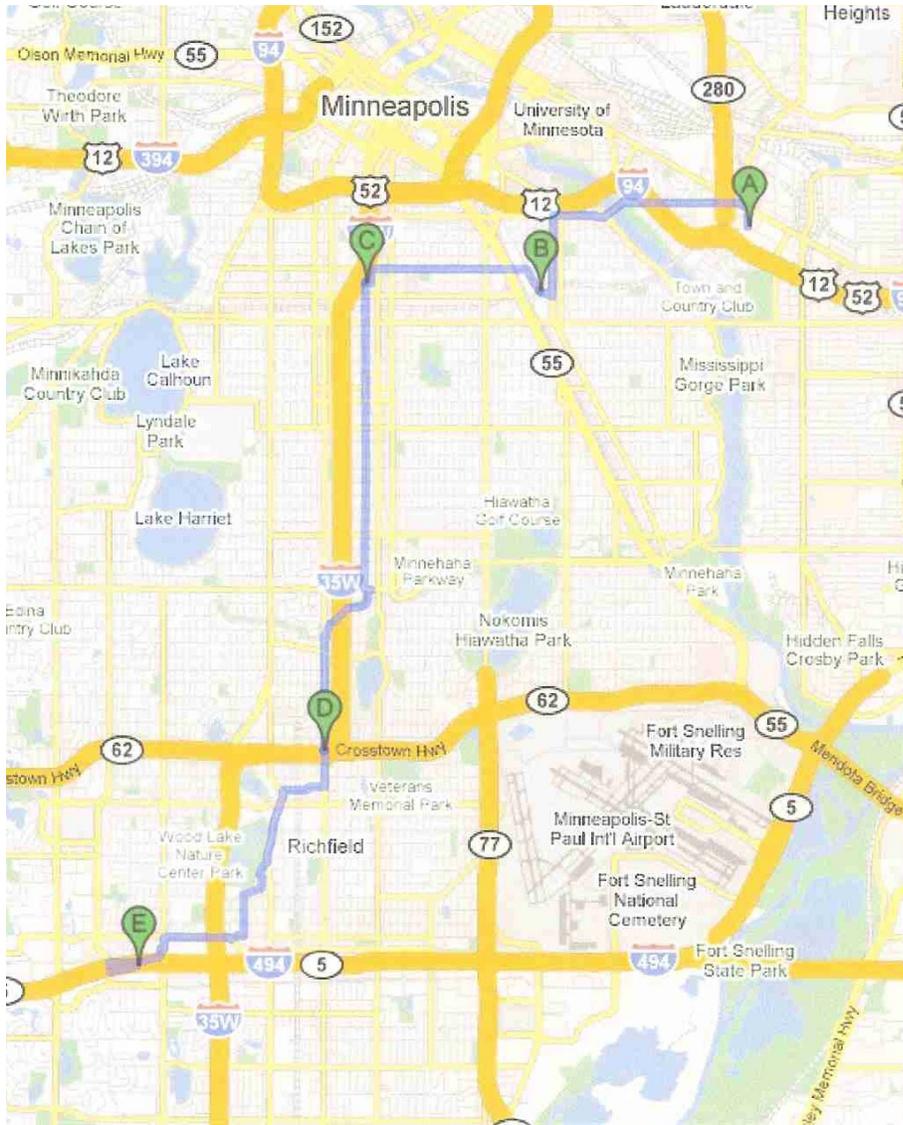
- In 2010 add a new Hiawatha I 15 kV distribution substation on the Elliot Park-Southtown 115 kV line. A new Midtown 115 kV substation with a new double-circuit 115 kV line to the Hiawatha substation.
- In 2013 add a new Cleveland 345/115 kV substation that taps the 345 kV line from Terminal to Kohlman Lake. A new 115 kV line from the Cleveland to the Lexington substation. Upgrade the two 448 MVA transformers at Red Rock to two 672 MVA transformers.
- In 2014 add a new 15 kV Crosstown distribution substation and add a double-circuit 115kV line to the Wilson substation. Upgrade the two 448 MVA transformers at Parkers Lake to two 672 MVA transformers. Upgrade the two 448 MVA transformers at Eden Prairie to two 672MVA transformers.
- In 2016 add the second distribution transformers at Crosstown and Midtown.
- In 2011 add the second distribution transformer at Hiawatha.
- In 2018 reconductor the 115 kV line from Afton-Red Rock.

- In 2020, add a new 345 kV line from the Cleveland substation to the Hiawatha substation. Add a new 345/115 kV. 448 MVA transformer at Hiawatha.

Routing docket, Exhibit F, p. 4, South Minneapolis Electric Reliability Project, prepared by Jason Standing, July 18, 2008.

The claimed purpose is quite different than what the specifics of the application reveal. There has been no need determination regarding this project to provide thorough review of Xcel’s need claim. And although Xcel’s need claim is a distribution deficiency, the “solution” is a several times larger than “needed” transmission line.

CONNECTED ACTIONS – WHAT DOES IT LOOK LIKE?



As above, the Hiawatha Project is a small part of a much larger project: The first set of connected actions, covering a distance of 13.7 miles:

- A new substation near Hwy. 280 (A on map at left);
- A 345kV line from the new 280 substation to the Hiawatha Substation (A to B on map);
- The “Hiawatha Project” as applied for (B to C on map);
- Oakland Substation to new Highway 62 substation near Hwy 62 and Nicollet (C to D on map);
- Hwy 62 substation to new Penn Lake substation near I-494 and Sheridan Avenue (D to E).

The other option of connected actions, covering a distance of 12.3 miles are:

- A new substation near Hwy. 280 (A on map below);
- A 345kV line from the new 280 substation to the Hiawatha Substation (A to B on map below);
- The “Hiawatha Project” as applied for (B to C on map below);
- Oakland Substation to new Highway 62 substation near Hwy 62 and Nicollet (C to D on map below);
- Hwy. 62 substation to the existing Wilson Substation near I-494 and Nicollet, recently expanded.



Both of the above connected actions require a Certificate of Need as they are over 10 miles. Minn. Stat. 216B.243. Both are to be considered in environmental review. Exhibit G, Scoping Decision.

The section on both maps, from points A to B, the Hwy. 280 substation and the 345kV line from that substation to the new Hiawatha substation was disclosed by Xcel engineer Jason Standing at the July 24, 2008 NM-SPG meeting:

7.1.4. South Minneapolis

Mr. Standing, XCEL, presented the South Minneapolis Electric Reliability Project (SMERP) study. Mr. Standing stated 4 options were studied. The preferred option includes a new 345 kV line in-service in approximately 2013-2020 from the New Hwy 280 345/115 kV substation to the New Hiawatha substation.

Exhibit F - NM-SPG Meeting Minutes, July 24, 2008. South Minneapolis has a large section with no substations or transmission:



The sections from points C to D on the maps above on pages 11 and 12, from Oakland to a new substation near Hwy. 62 and Nicollet Avenue, and points D and E for both, one from Hwy. 62 to a new Penn Lake substation near 494 and Sheridan, and the other from Hwy. 62 to the existing Wilson substation at 494 and Nicollet were disclosed in the 2007 Biennial Transmission Plan:

Alternatives. Initial investigation and scoping discussions have led to the development of three potential alternatives:

(1) Construct a new 115 kV line from a new Hiawatha Substation along Highway 55 to a new Oakland Substation near Lake Street and I-35W. The line would then continue south to a new Highway 62 Substation near Highway 62 and Nicollet Avenue. The line would continue to its final termination at a new Penn Lake Substation near I-494 and Sheridan Avenue.

(2) Similar to Option 1, but the final 115 kV line would stretch from Highway 62 Substation to the existing Wilson Substation near I-494 and Wentworth Avenue.

(3) Construct two smaller 115 kV loops with new 115 kV lines running from Hiawatha to Oakland to Elliot Park and a second loop from Penn Lake to Highway 62 to Wilson.

Exhibit A - 2007 Biennial Transmission Plan, section 7.5 (selected).²

The Wilson substation, at the south central border of the “Study Area,” has been recently upgraded, constructed for expansion waiting and available for the next incoming transmission line. See Public Hearing Testimony of Xcel’s Scott Zima.

The Environmental Report must consider all phased and connected actions.

9. THE ENVIRONMENTAL REPORT MUST ADDRESS UNDERGROUNDING

This transmission project, if built, is not feasible to build overhead. Xcel’s route traverses a densely populated area, and when land acquisition and public health and safety are considered, it is not feasible to build overhead. If it is to be permitted, it must be built underground.

There has been much testimony, ink and paper invested in arguing who should pay for transmission costs if line is built underground. Xcel and others focusing on the Facilities Surcharge Rider are off point – the Facilities Surcharge Rider is not the appropriate vehicle to address cost recovery for transmission, because it was established and is specifically and expressly for distribution. It is also to be used for undergrounding of distribution ordered by local governments, and not for for Public Utilities Commission ordered undergrounding. The Facilities Surcharge Rider is for distribution undergrounding requested or ordered, and in that case, costs of undergrounding would be allocated to the customers within that city, or apportioned between cities if more than one is involved. Here, many parties are inappropriately comparing and considering various cost recovery mechanisms, but there is no basis in law for

² Available online at: http://www.minnelectrans.com/images/2007_Biennial_Report/Part%20I%20-%20Section%207-5.pdf

allocation of costs to any party, no way to allocate to any other than the full NSP service territory, because there is no mechanism for cost allocation of transmission where the Public Utilities Commission orders undergrounding. See generally PUC Docket E002/M-99-799. As NSP stated in its initial CFRS petition:

The Oakdale Decision requires NSP to place distribution facilities underground without a CAIC (contribution in aid of construction) payment from a city if the city so requires the undergrounding under a police power ordinance.

Exhibit H - Petition of Northern States Power Company for Approval of a City Requested Facilities Surcharge Rider, June 7, 1999.³ Transmission, by its nature, has a geographically broader impact and benefits, than distribution. The Facilities Surcharge Rider was developed in response to a Commission investigation of distribution outages after intense storms.

Xcel/NSP have/are undergrounding transmission lines. This is not new, generally or to Xcel. Xcel long ago entered into an agreement with the City of St. Croix Falls and City of Taylors Falls to underground through those cities. Exhibit I - Agreement between NSP/Taylors Falls/St. Croix Falls.

- Agreements between parties can and have been made regarding treatment of costs of undergrounding. Id.
- Costs of undergrounding are not prohibitive, it's a standard service and cost of doing business. Xcel has not sought cost recovery in its CFRS tariff for costs of transmission.

The burying of lines between substations should not be considered non-standard. It is consistent with the Power Plant Siting Act and environmental policies of the State of Minnesota to treat undergrounding as a standard application. The County of Chisago passed a resolution regarding cost recovery for underground transmission when compared to distribution:

Transmission lines, on the other hand, are part of an integrated network of lines that transmit electrical power between and among all the substations within the NSP territory. The integrated nature of the transmission grid enhances the stable supply of power to all consumers within the NSP territory. All rate-payers in the NSP territory should pay for undergrounding transmission lines because the transmission grid serves all rate-payers, not just those in the community where the transmission line is placed underground. As a result, the cost should be incorporated within the rate-base for all customers.

Exhibit J - Chisago County Resolution No. 001018-5.

³ Available online:

<https://www.edockets.state.mn.us/EFiling/edockets/searchDocuments.do?method=eDocketsResult&userType=public#{4F2233FF-98DD-472B-A39B-504B172898F7}>

The costs of undergrounding should be considered in a full cost/benefit analysis of this project and the applicants claims that it is too costly must not be blindly accepted:

- Costs of underground a portion of the route should be compared against the costs of the FULL project as laid out in the South Minneapolis Electric Reliability Report study.
- The flip side, the benefits of undergrounding, such as protection of the public health and safety, aesthetics, viewshed, land-use impacts, economic development potential, preservation of property values, are benefits that must also be weighed in this cost/benefit analysis against the cost of undergrounding. See Exhibit K - Comment of Power Line Task Force, Docket E002/M-99-799.
- The cost estimates, both project cost estimates and undergrounding cost estimates, do not provide sufficient detail to analyze. Itemized cost estimates of overhead and underground should be independently verified.
- A full and detailed analysis of underground options, including location, configurations and cost, for all proposed alternatives should be independently verified.
- 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 option such as system alternatives,, these should be analyzed as well for ability to meet need and cost.

Applicants repeatedly state that they do not underground lines. This is false. Applicants could underground transmission, but as a matter of policy, they do not want to underground. Applicants will put lines underground if ordered or if an agreement is reached, such as that in the Chisago Transmission Project docket. They will also put transmission underground if they want to. Routing Rebuttal Testimony of Schedin regarding Xcel underground transmission.

A recent report, released February 24, 2010, sheds light on undergrounding, where undergrounding was found to be feasible and not as expensive as previously thought. This report, from the Alberta Electric Service Operator is available online⁴, and the findings of this report regarding undergrounding of high voltage transmission must be incorporated into the EIS. See e.g., 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]. The findings of this report should be analyzed, separately and with the Hiawatha Project as proposed.

Underground was also considered for part of the Mid-Atlantic Power Pathway, a 500kV transmission line, since suspended by PEPCO, the project promoter. The ability and begrudging willingness to underground this part of the MAPP line should be considered. PEPCO announced

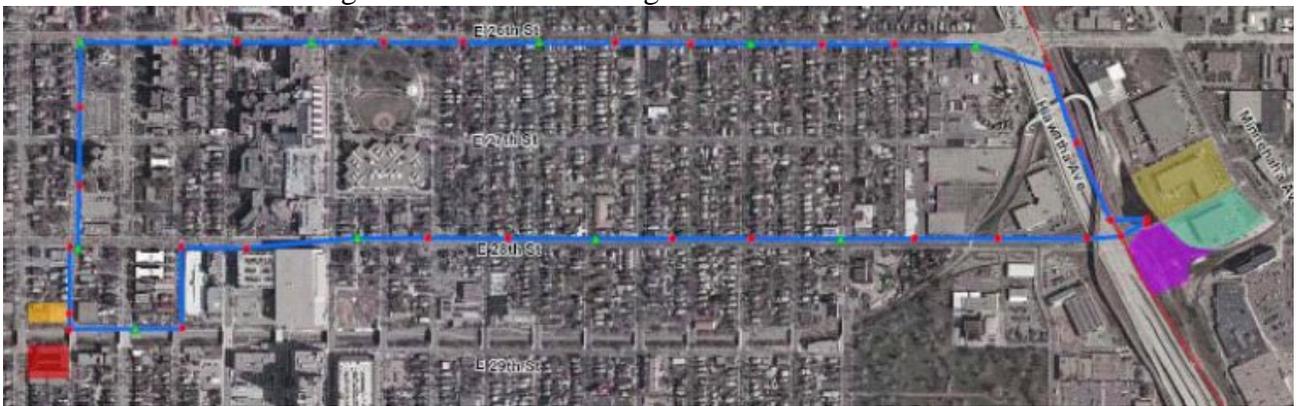
⁴ The iterations and comments and the full report are available on the AESO Feasibility Study for 50kV Underground Cables page: <http://www.aeso.ca/transmission/20001.html>

last week that it would underground a significant part of the line if it goes forward (the application was put on hold by PJM/PEPCO). Exhibit L, May 5, 2010 PEPCO Press Release.

A quick look at the route demonstrates that overhead construction is not feasible, easement acquisition is not feasible, and protection of the public health and safety is not feasible:



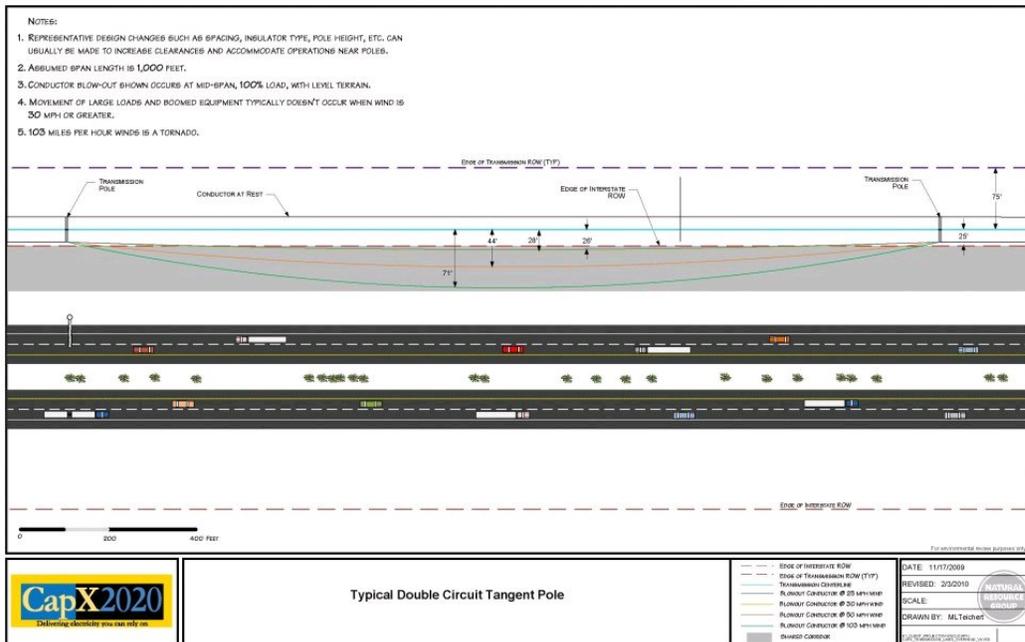
The alternative route configured as two 115kV single circuits:



Any route down 31st Street is as absurd.

In other transmission dockets, conductor blowout of above-ground transmission conductors is a factor for easement acquisition and in DOT corridor sharing.

Attachment 4 – Birds Eye View of Blowout Near Mn/DOT ROW
Page 1 of 1



This project, if constructed overhead, would cut through a tightly compacted business and residential community. A birds-eye blowout diagram, such as the one provided in Poorkers CapX Post-Hearing packet, provides an important concept that should be considered. (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.) Blowout means that in high winds, the conductor stretched between two poles, sagging, literally blows out, from its sagging downward position, and can even extend beyond the right of way. In a city where buildings are close, this should be a primary public health and safety concern.

10. THE ENVIRONMENTAL REPORT MUST ADDRESS THE FULL RANGE OF POTENTIAL MAGNETIC FIELDS

The electromagnetic fields are grossly underestimated in this Certificate of Need application, as they were in the Brookings EIS and the Monticello EIS. It is not stated what year load levels were assumed for the modeling in Table 8. Often levels are used for years prior, PRIOR, to the inservice date of the project. The EMF levels should be calculated for a number of situations including varying dates and loading levels, from near zero to near thermal-limits of conductor. These calculations of expected loading and peak using the conductor specifications have been provided in an Affidavit by Bruce McKay, P.E., and these levels must be considered in the Environmental Report.

The magnetic field estimates provided by Xcel in Table 41 in the Certificate of Need application presumes amperage levels that are so low as to be laughable – **230 and 138 amps**.

Figure 41: Calculated Magnetic Flux Density (milligauss) for Proposed 115 kV Transmission Line Designs (1 meter or 3.28 feet above ground)

Route	Structure Type	System Condition	Current (Amps)	Distance to Proposed Centerline										
				-200'	-100'	-75'	-50'	-25'	0'	25'	50'	75'	100'	200'
B & C	Horizontal Post 115kV Single Circuit	Peak	230	0.67	2.24	3.50	6.07	12.11	26.16	26.25	12.18	6.10	3.51	0.86
		Average	138	0.42	1.41	2.20	3.82	7.63	16.49	16.54	7.68	3.84	2.21	0.54
A	Davit Arm 115kV/115kV Steel Pole Double Circuit	Peak	230	0.22	1.49	3.13	7.88	23.03	38.44	22.77	7.73	3.05	1.44	0.21
		Average	138	0.13	0.90	1.79	4.73	13.82	23.06	13.66	4.64	1.72	0.87	0.13
A & D (3000 kcmil)	Transmission Duct Bank 115kV/115kV Under ground Double Circuit	Peak	230	0.00	0.01	0.03	0.11	0.84	13.08	0.85	0.11	0.03	0.01	0.00
		Average	138	0.00	0.01	0.02	0.07	0.51	7.85	0.51	0.07	0.02	0.01	0.00
A & D (1250 kcmil)	Transmission Duct Bank 115kV/115kV Under ground Double Circuit	Peak	230	0.00	0.01	0.02	0.05	0.37	19.67	0.37	0.05	0.01	0.01	0.00
		Average	138	0.00	0.00	0.01	0.03	0.22	11.80	0.22	0.03	0.01	0.00	0.00

The Environmental Report must reflect a range of magnetic field levels comporting with those in the Scoping Comment Affidavit of Bruce McKay:

STEP 4														
THIS TABLE CONTAINS DATA SCALED FROM THE TABLE ABOVE USING CURRENTS CALCULATED IN STEP 3														
Figure 41: CALCULATED MAGNETIC FLUX DENSITY (MILLIGAUSS) FOR PROPOSED 115KV TRANSMISSION LINE DESIGNS (1 METER OR 3.28 FEET ABOVE GROUND)														
Route	Structure Type	System Condition	Current (Amps)	Distance to Proposed Centerline										
				-200'	-100'	-75'	-50'	-25'	0'	25'	50'	75'	100'	200'
B & C	Horizontal Post 115kV Single Circuit	Peak	965.07	2.81	9.40	14.69	25.47	50.81	109.77	110.14	51.11	25.60	14.73	3.61
		Average	723.80	2.20	7.40	11.54	20.04	40.02	86.49	86.75	40.28	20.14	11.59	2.83
A	Davit Arm 115kV/115kV Steel Pole Double Circuit	Peak	1930.13	1.85	12.50	26.27	66.13	193.27	322.58	191.08	64.87	25.60	12.08	1.76
		Average	1447.60	1.36	9.44	18.78	49.62	144.97	241.90	143.29	48.67	18.04	9.13	1.36

11. SUBSTATION LIGHTING AND NOISE MUST BE ADDRESSED

The substation noise and lighting must be addressed with specificity. In the Arrowhead transmission project, the associated 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.

The Application addresses substations, but contains insufficient equipment regarding equipment to determine the purpose and capacity limitations. Information is need regarding:

- Itemized identification of transformers and other substation equipment, including MVA ratings.
- Line drawings of substations.
- Clear powerflows showing legible inputs and outputs of substations.
- Impact of profile on noise emitted by substation.
- Substation lighting plan and an analysis of lighting impacts.
- Light can be legally regarded as pollution. Frequently substations are lit up like an intergalactic-spacestation or refinery. Findings must include information about substation and other lighting for this project.

12. THE ENVIRONMENTAL REPORT MUST INCORPORATE THE HIAWATHA PROJECT ROUTING DEIS AND FEIS

To be sufficiently complete and adequate, the Environmental Report in this Certificate of Need docket must incorporate the Routing DEIS and FEIS.

CONCLUSION

The Hiawatha Project is not needed for any of the reasons Applicants claim, and it readily fits into the larger plan laid out by Xcel in previous reports, stretching from an interconnection to the 345kV metro ring, down into the city, and through the heart of South Minneapolis to connect to the 345kV ring in Bloomington.

It is not feasible to build it above ground. Land acquisition with sufficiently protective easements is formidable, impossible, because the buildings are built close together and are not far from the streets. Public health and safety would be put at risk if these lines were built above ground in this densely populated area due to the impacts of EMF and noise and lighting that would make this project a most unwelcome neighbor.

If this project does go forward, it should do so only with sufficient protections to the people in the community, assured by undergrounding and apportionment of the cost of undergrounding of transmission to the entire Xcel ratebase.

Thank you for the opportunity to submit this Comment.

Very truly yours,

A handwritten signature in cursive script that reads "Carol A. Overland".

Carol A. Overland
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