

## Commenter 49 – Hanna Esparza

**From:** [apache@web.lmic.state.mn.us](mailto:apache@web.lmic.state.mn.us)  
**To:** [Storm, Bill \(COMM\)](#)  
**Subject:** Esparza Sun Mar 7 12:22:40 2010 E002/TL-09-38  
**Date:** Sunday, March 07, 2010 12:23:06 PM

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This public comment has been sent via the form at: [www.energyfacilities.puc.state.mn.us/publicComments.html](http://www.energyfacilities.puc.state.mn.us/publicComments.html)

You are receiving it because you are listed as the contact for this project.

Project Name: Xcel Energy Hiawatha 115 kV Transmission Line Project

Docket number: E002/TL-09-38

User Name: Hanna Esparza

County: Hennepin County

City: Minneapolis

Email:

Phone:

49-1

Impact: I have 2 small children and the greenway has been a wonderful gift to our family because we are able to enjoy the outdoors in a safe environment. I'm concerned about the link between high voltage power lines and childhood leukemia.

Mitigation: I'm asking and hoping that you will make the wise decision in this very important case. Please bury the lines and substations for our kids sake.

Submission date: Sun Mar 7 12:22:40 2010

This information has also been entered into a centralized database for future analysis.

For questions about the database or the functioning of this tool, contact:

Andrew Koebrick  
[andrew.koebrick@state.mn.us](mailto:andrew.koebrick@state.mn.us)

## Responses

### Comment 49-1

Thank you for your comment. It has been noted and included in the record for this EIS. A discussion of EMF appears in Sections 5.6.1.2 and 5.6.2.2 of the EIS.

## Commenter 50 – Leslie Everett

**From:** [Leslie A. Everett](#)  
**To:** [Storm, Bill \(COMM\)](#)  
**Subject:** Comment Draft EIS Xcel Energy Hiawatha HVTL Project  
**Date:** Wednesday, February 24, 2010 11:58:11 AM

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William Storm,

Here are my comments on the Draft EIS, Xcel Energy Hiawatha HVTL Project, PUC Docket No. E002/TL-09-38

Comment:

The Draft EIS is unacceptably vague and understated regarding the most critical aspect of the proposal to put an overhead power line through the Midtown Greenway Corridor:  
On page 270, last paragraph it states: "The overhead lines would pose an aesthetic impact to recreation in the Greenway."  
On page 271: "The presence of transmission line structures may have a negative effect on the overall experience, perception and sentiment associated with using the Greenway."

That is the equivalent of stating that the presence of high voltage transmission lines and structures on Minnehaha Parkway or around Lake Calhoun "may have a negative effect on the overall experience, perception and sentiment associated with using" the Parkway or Lake. That level of analysis would be rejected out of hand for the Parkway and the Lake and should be rejected for the Greenway.

The Greenway is both a commuter and recreational corridor, essentially a linear park or parkway like Minnehaha Parkway and needs to be treated as such. That was the intent in securing the funds to form the Greenway and that intent must be respected.

Leslie A. Everett  
1988 Brewster St. Apt. 109  
St. Paul, MN 55108  
651-641-1880

## Responses

### Comment 50-1

Thank you for your comment. It has been noted and included in the record for this EIS.

50-1

## Commenter 51 – James Feldman

**From:** [apache@web.lmic.state.mn.us](mailto:apache@web.lmic.state.mn.us)  
**To:** [Storm, Bill \(COMM\)](#)  
**Subject:** Feldman Sun Feb 28 10:34:01 2010 E002/TL-09-38  
**Date:** Sunday, February 28, 2010 10:34:20 AM

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You are receiving it because you are listed as the contact for this project.

Project Name: Xcel Energy Hiawatha 115 kV Transmission Line Project

Docket number: E002/TL-09-38

User Name: James Feldman

County: Hennepin County

City: Minneapolis

Email: [jimfeldman@wesac.org](mailto:jimfeldman@wesac.org)

Phone: 612-377-0203

51-1

Impact: The line and substations should be underground. The health risks of an above-ground line and stations is unacceptable.

Mitigation: Bury the lines and substations.

Submission date: Sun Feb 28 10:34:01 2010

This information has also been entered into a centralized database for future analysis.

For questions about the database or the functioning of this tool, contact:

Andrew Koebrick  
[andrew.koebrick@state.mn.us](mailto:andrew.koebrick@state.mn.us)

## Responses

### Comment 51-1

Thank you for your comment. It has been noted and included in the record for this EIS.

## Commenter 52 – Hannah Friedrich

Hannah Friedrich resident of East Phillips Neighborhood, Minneapolis, MN 55407  
[hannahfriedrich@yahoo.com](mailto:hannahfriedrich@yahoo.com)

### COMMENTS ON DEIS

I feel like this process has been well executed and people are very accessible for questions. The DEIS explained most concerns and questions regarding the Hiawatha project.

However, as a resident of East Phillips Neighborhood I am still very concerned about the potential impacts of overhead high voltage lines dissecting my neighborhood. At the public comment meeting I was disappointed more people from my neighborhood were not able to attend. Despite this I know the overwhelming consensus is to bury the lines. I can't help but think if this project were proposed for a more affluent neighborhood the only option would be to bury the lines. And, the four years I have lived here (27th Street and 18th Avenue) I have never had a brown out. If the power demand is for south of Lake St. the lines should be south of Lake St..

52-1

My concerns include: compromised health from high voltage lines, aesthetics of my neighborhood and the Greenway, noise from the lines, decreased business on Lake Street, lowered property values in an already depressed area, not to mention the impact to the historical sites on the route.

A voice representing 18th Avenue South demands the lines to be buried!

### MITIGATION

The answer is simple, bury the lines.

## Responses

### Comment 52-1

Thank you for your comment. It has been noted and included in the record for this EIS.

## Commenter 53 – Adel Gardner

**From:** [apache@web.lmic.state.mn.us](mailto:apache@web.lmic.state.mn.us)  
**To:** [Storm, Bill \(COMM\)](#)  
**Subject:** Gardner Sun Mar 7 11:39:52 2010 E002/TL-09-38  
**Date:** Sunday, March 07, 2010 11:41:06 AM

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You are receiving it because you are listed as the contact for this project.

Project Name: Xcel Energy Hiawatha 115 kV Transmission Line Project

Docket number: E002/TL-09-38

User Name: Adel Gardner

County: Hennepin County

City: Minneapolis

Email:

Phone: 612-718-9134

Impact: I live in this neighborhood and want my family and neighbors to be healthy and safe.

Mitigation: Please bury the lines underground to that end.

Submission date: Sun Mar 7 11:39:52 2010

This information has also been entered into a centralized database for future analysis.

For questions about the database or the functioning of this tool, contact:

Andrew Koebrick  
[andrew.koebrick@state.mn.us](mailto:andrew.koebrick@state.mn.us)

## Responses

### Comment 53-1

Thank you for your comment. It has been noted and included in the record for this EIS.

53-1

## Commenter 54 – Nancy Gehrenbeck-Miller

**From:** [apache@web.lmic.state.mn.us](mailto:apache@web.lmic.state.mn.us)  
**To:** [Storm, Bill \(COMM\)](#)  
**Subject:** Gehrenbeck-Miller Sun Mar 7 11:51:41 2010 E002/TL-09-38  
**Date:** Sunday, March 07, 2010 11:51:49 AM

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You are receiving it because you are listed as the contact for this project.

Project Name: Xcel Energy Hiawatha 115 kV Transmission Line Project

Docket number: E002/TL-09-38

User Name: Nancy Gehrenbeck-Miller

County: Hennepin County

City: Minneapolis

Email:

Phone:

Impact: Hi, I'm not completely aware of all of the implications of these power lines. I have 3 children and we take bike ride along the greenway during the summer.

Mitigation: I would prefer that the lines be covered underground to reduce the health risks to our family.

Submission date: Sun Mar 7 11:51:41 2010

This information has also been entered into a centralized database for future analysis.

For questions about the database or the functioning of this tool, contact:

Andrew Koebrick  
[andrew.koebrick@state.mn.us](mailto:andrew.koebrick@state.mn.us)

54-1

## Responses

### Comment 54-1

Thank you for your comment. It has been noted and included in the record for this EIS.

## Commenter 55 – Steve Gehrenbeck-Miller

**From:** [apache@web.lmic.state.mn.us](mailto:apache@web.lmic.state.mn.us)  
**To:** [Storm, Bill \(COMM\)](#)  
**Subject:** Gehrenbeck-Miller Sun Feb 28 12:23:31 2010 E002/TL-09-38  
**Date:** Sunday, February 28, 2010 12:23:48 PM

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This public comment has been sent via the form at: [www.energyfacilities.puc.state.mn.us/publicComments.html](http://www.energyfacilities.puc.state.mn.us/publicComments.html)

You are receiving it because you are listed as the contact for this project.

Project Name: Xcel Energy Hiawatha 115 kV Transmission Line Project

Docket number: E002/TL-09-38

User Name: Steve Gehrenbeck-Miller

County: Hennepin County

City: Minneapolis

Email: [junaneve@msn.com](mailto:junaneve@msn.com)

Phone: 612-724-2708

Impact: We are a family of five, kids are 9, 7, and four. Just last year we started branching out to our neighborhood paths on our bikes. We look forward to a healthy, inviting place to be. We live and play in South Minneapolis. Please keep the power lines out of sight and keep our paths beautiful. Our church is on 31st St. We don't want to see these lines outside there either. Let's take the time and resources to do it right. Thanks. Steve and Nancy Gehrenbeck-Miller

Mitigation:

Submission date: Sun Feb 28 12:23:31 2010

This information has also been entered into a centralized database for future analysis.

For questions about the database or the functioning of this tool, contact:

Andrew Koebrick  
[andrew.koebrick@state.mn.us](mailto:andrew.koebrick@state.mn.us)

## Responses

### Comment 55-1

Thank you for your comment. It has been noted and included in the record for this EIS.

55-1

## Commenter 56 – Cam Gordon

**From:** [Gordon, Cam A.](#)  
**To:** [Strom, Bill \(COMM\)](#)  
**Subject:** Comments on Draft DEIS  
**Date:** Wednesday, March 10, 2010 4:42:17 PM

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Dear Mr. Strom,

The following are my comments related to the Draft Environmental Impact statement (DIES) for the proposed Xcel Energy Hiawatha 115kV Transmission Line Project.

I commend you on drafting a significant report that takes a good first step towards assessing the environmental impacts of this project. I hope my comments will be helpful.

I also know that the City, and many others, will be providing additional and more comprehensive comments that I expect to be carefully reviewed and taken into consideration. With that in mind, I offer the following select comments that I feel warrant special emphasis.

1.2

My first concern relates to the overall scope of the project. As the DEIS explores alternative routes and locations for substations, there seems to be no study of the alternative of a no-build option. What other actions could be taken to manage the increased demand on the grid through conservation? What kinds of alternative technology, including smart grid, co-generation, geothermal and solar energy, could be used at large properties like the Midtown Exchange building, Allina, Wells Fargo and the Children's Hospital, to reduce demand and reliance on Xcel's energy sources? Similarly, what alternatives could be used throughout the area for energy storage, production and conservation?

56-1

1.2.1

How do we know that this is not a phase of connected actions? During the DEIS period we heard repeatedly of Xcel Energy's plans for power line extensions to both the east and west. Some even referenced drawings and maps. I, along with many others, am not convinced that this project is not part of larger connected or phased

56-2

## Responses

### Comment 56-1

See response to Comment 20-7, which addresses the same concern.

### Comment 56-2

See response to Comment 20-7, which addresses the same concern.

## Commenter 56 – Cam Gordon

- 56-2 actions. The DEIS states that there are “no connected actions associated with the project,” yet offers no evidence or for this assumption.
- 56-3 This question only gets more perplexing due to the fact that, in section 3.5, there is a discussion of “future options to accommodate future expansion.” The DEIS states that Xcel Energy does not have “current plans” for expansion, but then admits that expansion may be necessary. Were past plans turned over and reviewed? What discussions and future plans have been revealed that would lead one to conclude an expansion would be necessary, and why then wasn’t a full investigation done about how this project may or may not be one phase of connected activities in the future?
- 56-4 1.4.1  
In discussing the applicant’s preferred route and throughout the DEIS there is an assumption that a double line is needed. There is no study of a single line, or the alternative of having this line go through the area further east and/or west to connect other substations. If the line was longer, one of the substations may not be needed. This alternative could have been studied.
- 56-5 4.2  
The DEIS looks at above ground and underground substations, although only an analysis of one of the Hiawatha substations appears to have been conducted and addressed. What is the feasibility of undergrounding the station at all the proposed locations and alternatives?
- 56-6 Furthermore, no study of fully enclosing the substations appears to have been done. Full enclosure would be much more in keeping with the design and building guidelines of the area and should be more fully studied.
- 56-7 5.1  
I share the concerns expressed in the City of Minneapolis comments about the understatement of the fall impacts. Unless an above-ground line is built specifically to withstand cascades, they are a

## Responses

### Comment 56-3

See response to Comment 11-4, which addresses the same concern.

### Comment 56-4

The issues of need, including size, type and timing; questions of alternative system configurations; or questions of voltage, were identified to be outside the scope of the EIS in the Scoping Decision, signed by the Director of the OES on September 3, 2009.

### Comment 56-5

A study on the potential design and cost of an underground substation was performed for the Hiawatha West Substation. Design and cost studies were not performed for other substation alternatives; however, undergrounding of other substations would require the same approximate cost and design considerations. Any potential benefits from undergrounding the Hiawatha West Substation, as noted in the mitigation subsections within Section 5.0 of the EIS, would be similar for other underground substations. Text in Section 1.5 has been modified to note that similar design considerations, costs, and benefits would result from the undergrounding of other substation alternatives.

### Comment 56-6

The Applicant has not proposed an enclosed substation design. Text in Section 3.3.1.3 has been modified to include a discussion on the potential to enclose the substations.

### Comment 56-7

A discussion of tower failure appears in Section 5.6.3.9 of the EIS. All structures would be designed to meet or exceed NESC requirements and would be equipped with protective devices that would automatically take the line out of service should a structure fail or collapse.

## Commenter 56 – Cam Gordon

## Responses

56-7

possibility, and the failure of any one transmission tower is likely to impact the surrounding community not only through its own fall distance, but that of the conductor and the adjacent towers, unless they are dead end structures.

5.6

While there is some discussion about electromagnetic fields, the DEIS does not appear to give this serious concern enough consideration. The research in this area points to some health impacts that have few findings to support them, and some that have robust and significant research to back them up, yet the DEIS fails to make any distinction. Research also indicated that within this area there is significantly greater risk of cancer among certain populations, including pregnant women, newborns and young children. The DEIS provides little or no information about the approximate number of pregnant women, newborns or young children in the area at any given time, including hospitals where mothers give birth, child care centers that serve infants, toddlers and preschoolers, elementary schools or secondary schools, and agencies like the YWCA that serve young children and families on a daily basis. This information is necessary to truly assess the risks of the different power line and substation alternatives.

56-8

Finally, I want to note that I share concerns that the DEIS as written does not adequately analyze the data about the surrounding community through the lens of environmental justice. Placing this facility in this location impacts several of the principles laid out in Executive Order 12898, due to the fact that the surrounding community clearly has a high rate of both "minority" and "low income" populations. The DEIS does not currently demonstrate that the project has done what is necessary to "avoid, minimize or mitigate disproportionately high and adverse human and environmental effects." Indeed, this project, especially if the above-ground option is chosen, will be a good example of siting a facility with disproportionate negative impacts in a low-income, minority community with few meaningful mitigations of any kind. More analysis of this project in regards to this Executive Order is required.

56-9

### Comment 56-8

Thank you for your comment. It has been noted and included in the record for this EIS. A discussion of EMF appears in Sections 5.6.1.2 and 5.6.2.2 of the EIS.

### Comment 56-9

Environmental justice was identified as a concern during the scoping process and evaluated in the EIS using the federal construct established in Executive Order 12898 as a guide. The federal construct was used for guidance purposes only; the Project is not a federal project and not subject to a NEPA review or Executive Order 12898.

## Commenter 56 – Cam Gordon

Cam Gordon  
Minneapolis City Council Member, Second Ward  
673-2202, 296-0579  
cam@camgordon.org  
<http://www.ci.minneapolis.mn.us/council/ward2/>  
<http://secondward.blogspot.com/>

## Responses

## Commenter 57 – Ernie Gunderson

**From:** [apache@web.lmic.state.mn.us](mailto:apache@web.lmic.state.mn.us)  
**To:** [Storm, Bill \(COMM\)](#)  
**Subject:** Gunderson Sun Feb 28 10:10:48 2010 E002/TL-09-38  
**Date:** Sunday, February 28, 2010 10:11:12 AM

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Project Name: Xcel Energy Hiawatha 115 kV Transmission Line Project

Docket number: E002/TL-09-38

User Name: Ernie Gunderson

County:

City: Minneapolis

Email:

Phone: 612-721-9103

Impact: To whom it concerns:

57-1

Please do not clutter the greenway with another power line. It is cluttered enough already.

Thank you,

Ernie Gunderson

Mitigation:

Submission date: Sun Feb 28 10:10:48 2010

This information has also been entered into a centralized database for future analysis.

## Responses

### Comment 57-1

Thank you for your comment. It has been noted and included in the record for this EIS.

## Commenter 58 – Becky Hanson

**From:** [apache@web.lmic.state.mn.us](mailto:apache@web.lmic.state.mn.us)  
**To:** [Storm, Bill \(COMM\)](#)  
**Subject:** Hanson Sun Feb 28 12:13:51 2010 E002/TL-09-38  
**Date:** Sunday, February 28, 2010 12:14:09 PM

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You are receiving it because you are listed as the contact for this project.

Project Name: Xcel Energy Hiawatha 115 kV Transmission Line Project

Docket number: E002/TL-09-38

User Name: Becky Hanson

County: Hennepin County

City: Minneapolis

Email: [beckyhanson@usiwireless.com](mailto:beckyhanson@usiwireless.com)

Phone: 612-871-9651

58-1

Impact: We want you to bury the powerlines to encourage business development, maintain aesthetics, and eliminate health concerns.

Mitigation:

Submission date: Sun Feb 28 12:13:51 2010

This information has also been entered into a centralized database for future analysis.

For questions about the database or the functioning of this tool, contact:

Andrew Koebrick  
[andrew.koebrick@state.mn.us](mailto:andrew.koebrick@state.mn.us)

## Responses

### Comment 58-1

Thank you for your comment. It has been noted and included in the record for this EIS.

## Commenter 59 – Allyson Hayward

**From:** [apache@web.lmic.state.mn.us](mailto:apache@web.lmic.state.mn.us)  
**To:** [Storm, Bill \(COMM\)](#)  
**Subject:** Hayward Sun Feb 28 10:02:20 2010 E002/TL-09-38  
**Date:** Sunday, February 28, 2010 10:02:52 AM

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You are receiving it because you are listed as the contact for this project.

Project Name: Xcel Energy Hiawatha 115 kV Transmission Line Project

Docket number: E002/TL-09-38

User Name: Allyson Hayward

County: Hennepin County

City: Minneapolis

Email: [allyson.hayward@gmail.com](mailto:allyson.hayward@gmail.com)

Phone: 6123846286

59-1

Impact: I'm opposed to having the high power line along the Greenway. If it must be, please bury it!

Mitigation: Bury it.

Submission date: Sun Feb 28 10:02:20 2010

This information has also been entered into a centralized database for future analysis.

For questions about the database or the functioning of this tool, contact:

Andrew Koebrick  
[andrew.koebrick@state.mn.us](mailto:andrew.koebrick@state.mn.us)

## Responses

### Comment 59-1

Thank you for your comment. It has been noted and included in the record for this EIS.

## Commenter 60 – Matthew Hendricks

**From:** [Matthew Hendricks](#)  
**To:** [Storm, Bill \(COMM\)](#)  
**Subject:** Hiawatha project DEIS comments  
**Date:** Wednesday, March 10, 2010 3:00:37 PM

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Dear Mr. Storm,  
The Midtown Greenway is an asset that is difficult to quantify, a treasure whose value can't easily be translated into numbers. It is the City's most pleasant highway. It is our newest major park, and already one of the most popular trails in the country. It is a safe place for people in motorized wheelchairs to get outside and enjoy some fresh air. A place for kids to bike for blocks without stopping. A place for tentative bike commuters to get comfortable with a new way of getting to work. A place for dogwalkers, joggers, walkers, rollerbladers and parents pulling toddlers in wagons and trailers. A place where every mile travelled improves the health of our community rather than diminishing it. A place to meet friends and neighbors. During the first warm days of Spring, the Midtown Greenway is a place where smiling is absolutely contagious.

In 2009, my family purchased a new home just 4 blocks from the Midtown Greenway, and I need both hands to count the friends who moved closer to the Greenway before we did. In addition to individual homeowners, the Greenway has attracted major development. Over 1,000 new apartments and condos have been constructed adjacent to the Midtown Greenway over the past six years, representing at least \$150,000,000 in new investment in Minneapolis neighborhoods. The Midtown Greenway ranks with the Mississippi River, the Hiawatha Light Rail Line, and the new Twins Ballpark as a significant catalyst for new development.

Based on my own professional experience in housing development, I take issue with the assessment made in the Draft Environmental Impact Statement that the project would not have a direct impact on development. The assertion appears several places, for example on page 191: "Planned and proposed development would not be limited or prevented as a result of this Project. However, individuals may choose to alter their development plans based on the visual intrusion and negative perception associated with the presence of transmission lines and substations." I understand that the DEIS must attempt to take a balanced, analytical approach. However, in this particular case, the document seems to lose touch with reality. High voltage power lines would have a direct and devastating impact on the ability of adjacent sites to attract investment of any kind, and any hope of attracting the kinds of high-quality housing that has been typical along the Greenway would be lost. To say that "individuals may choose to alter their development plans" is an understatement, to the point of being inaccurate. The DEIS should be revised to describe and quantify the impacts that would almost certainly result if overhead high voltage lines were installed along the Greenway.

60-1

## Responses

### Comment 60-1

A discussion of the indirect impacts on development associated with an overhead HVTL appears in Section 5.4.2.2 of the EIS.

While the overhead transmission line options may have an indirect impact on development due to the lack of desire to live, work, or develop property near a high voltage transmission line, these are not considered direct effects. There are areas within the Twin Cities metropolitan area where development does occur adjacent to overhead high voltage transmission lines.

## Commenter 60 – Matthew Hendricks

60-2

I would also like to see a stronger review of alternative options like conservation, co-generation, local energy production, and so forth. If combined, would all of these tools together allow us to avoid the new lines altogether? To what extent is the proposed new line needed to deal with the immediate concerns, and to what extent is new capacity being added in anticipation of new demand that may or may not materialize, given ongoing efforts to improve efficiency (some of which are supported directly by Xcel)?

Thank you for considering my comments.

Regards,  
Matthew Hendricks

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Matthew Hendricks  
2114 29th Ave S.  
Minneapolis, MN 55406  
612.501.8966

## Responses

### Comment 60-2

See Comment 24-4, which addresses the same concern. A discussion of the applicability of a Certificate of Need is discussed in Section 2.2 of the EIS.

## Commenter 61 – Peter McLaughlin and Mark Stenglein

### MEMORANDUM

TO: Bill Storm, Project Manager  
FROM: Peter McLaughlin, Chair - Hennepin County Regional Railroad Authority  
Mark Stenglein, Hennepin County Commissioner  
RE: Comments of the Hennepin County Railroad Authority and Hennepin County  
DATE: March 10, 2010

#### In the Matter of the Application for a HVTL Route Permit for the Hiawatha Transmission Project

OAH 15-2500-20599-2  
MPUC No. E002/TL-09-38

61-1 | As noted in previous correspondence, the Hennepin County Regional Railroad Authority and Hennepin County support the placement of the high voltage transmission lines underground and request the additional costs be spread to the five state service area of Xcel. We have reviewed the Draft Environmental Impact Study (DEIS) prepared by the Office of Energy Security. While we appreciate the time and effort that has gone into preparing this document and agree with many of the observations and comments, we offer the following comments as to where the DEIS inadequately addresses impacts resulting from placement of overhead high voltage transmission lines through the heart of south Minneapolis.

61-2 | The DEIS fails to adequately address the impacts of a “no development” zone created by the placement of overhead high voltage transmission lines.

61-3 | The DEIS includes thoughtful discussions about the visual impact of overhead transmission line towers to surrounding areas, and the potential limitations they may place on existing and future uses of property (p. 9-10; impact summary p. 18; p. 190-191). The notion, however, that landscaping and vegetation can minimize the visual impact (p. 9) of overhead towers 75-115 feet tall and 36-58 inches at the base is unsupported. The effects of landscaping and vegetation would be so minimal that we request those comments be stricken as inadequately addressing the impact.

61-4 | The report acknowledges that a potential impact of overhead high voltage transmission lines includes “perceived loss of property values” (p. 10) without adequately addressing the impact of such perception. Property values are set by the marketplace. In the future, when property owners along the Greenway seek to sell their property, the selling price will be set by potential buyers’ perceptions of value. The buyers’ perceived value of property will result in real economic impacts to property owners. In other words, in an open marketplace, perceived property values are real property values and the report must discuss this impact as such. Describing

## Responses

### Comment 61-1

Thank you for your comment. It has been noted and included in the record for this EIS.

### Comment 61-2

A discussion of the indirect impacts on development associated with an overhead HVTL appears in Section 5.4.2.2 of the EIS. While there are no direct impacts identified, the EIS understands that there may be indirect impacts to development due to the perceptions of an industrial use area, visual intrusions that may influence the purchase price, and noise and dust present during construction.

### Comment 61-3

Text in the Executive Summary has been modified regarding the mitigation of visual impacts with landscaping and vegetation.

### Comment 61-4

Text in Sections 5.4.2.2, Table 6-1, and the Executive Summary has been modified to discuss impacts to perceived and real market property values.

## Commenter 61 – Peter McLaughlin and Mark Stenglein

61-4 | the impact to property values as "perceived" implies that there really is no economic impact and is an inadequate analysis of the economic impacts resulting from overhead HVTL construction.

61-5 | The DEIS fails to adequately address the negative visual impact that overhead towers 75 to 115 feet tall and 36 to 58 inches wide at the base would have on the financial feasibility of new higher density housing developments. Views from housing units have a significant impact on value, whether the project is rental or ownership housing. Units in the vicinity of the Greenway that would potentially have obstructed or partially obstructed downtown or Greenway views due to high voltage transmission line towers would certainly see a decrease in value, and will likely take longer to lease or sell. Developers are likely to evaluate these factors during the predevelopment phase. While it is impossible to predict the precise impacts, these factors can decrease rent or sales revenues especially where alternative competing locations don't have such visual impairments. This will result in increased carrying costs and decreased financial feasibility for projects located within the vicinity of the overhead high voltage transmission towers.

61-6 | Given the track record of housing in the Greenway vicinity, future high density housing is likely, but will likely consist of a mix of affordable and market-rate units rather than high end housing. Development feasibility, therefore, will be sensitive to even small cost or revenue impacts. While the DEIS points out in the summary table that the project "could discourage high density residential development" (p. 19), the DEIS should more thoroughly analyze these types of impacts to the feasibility of future development. Such analysis will likely contradict DEIS statements that the transmission lines would not limit or prevent additional residential development.

61-7 | The DEIS points out that the issue of the overhead high voltage tower "fall distance" may impact "residential property values and their ability to acquire Federal Housing Authority (FHA) loans" (p. 18.). The issue of fall distance not only precludes the availability of FHA loans for single family home purchasers, it also precludes the ability of developers to obtain HUD-backed mortgages to finance higher density residential and/or mixed-use developments. HUD-backed financing plays a role in the vast majority of higher density residential and mixed-use development projects in the metro region. Recently, HUD rejected financing for a project along the Hiawatha corridor emphatically stating that "overhead high voltage transmission lines are too close to the proposed building to be acceptable under HUD Compliance Standards."<sup>1</sup> The rejection places significant doubt on the proposition that a letter from Xcel Energy would solve the financing problem of being located within the fall zone, given other difficulties associated with development in the area. Instead, the HUD denial letter supports the proposition that location within the fall zone of an overhead high voltage transmission line will too often significantly compound with other flaws and prevent development.

<sup>1</sup> See Attachment A - Letter to Mr. Timothy Duncan from the U.S. Department of Housing and Urban Development.

## Responses

### Comment 61-5

See response to Comment 61-4, which addresses the same concern.

### Comment 61-6

Text in Section 5.4.2.2 has been supplemented to include additional information on HUD Financing. While the presence of HVTL lines may indirectly impact development, the precise quantitative measure of impact is unknown. As noted in Section 5.4.2.2, residential property values may be affected by the presence of overhead lines due to visual perceptions and concerns over safety. The distances of poles structures from residential properties would be sited to meet or exceed the requirements of the National Electrical Safety Code (NESC).

### Comment 61-7

Text in Section 5.4.2.2 has been modified to include additional information on HUD financing for high density residential areas.

## Commenter 61 – Peter McLaughlin and Mark Stenglein

61-8 | It effectively creates a “no development” zone around the overhead high voltage transmission lines proposed by Xcel. Hennepin County has invested over 30 million dollars in infrastructure and related improvements in the Midtown Greenway Corridor in order to promote economic development and, in turn, to increase the overall tax base to the benefit of Hennepin County residents and workers. Eliminating the potential for high density residential development adjacent to overhead high voltage transmission lines severely limits the development and tax base enhancing potential of this corridor. We request that the DEIS recognize that overhead high voltage tower fall distance will negatively impact residential property values and negatively impact the ability of developers to acquire FHA loans and accordingly negatively impact the ability to develop property along the corridor in a manner envisioned by the various development plans for the area.

61-9 | In light of the above factors, the DEIS statement that “The Transmission line route alternatives would not limit the type of development, zoning designation, or land use that could occur” (p. 124) should be revised. It would be more accurate to state that underground alternatives will not limit the type of development, zoning designation, or land use that has been planned or would otherwise occur-- and that overhead routing will limit such development. The DEIS should include a more thorough discussion of the broad role that HUD financing plays in the types of development planned for this corridor, and therefore the broader negative impact of overhead high voltage transmission lines on future development.

**The DEIS fails to adequately address historical impacts created by the placement of overhead high voltage transmission lines.**

61-10 | In the discussion on archaeological and historical resources, the DEIS erroneously and inadequately relies on the “800 List” to identify properties that are potentially eligible for historic designation by the City of Minneapolis. As noted by Greg Mathis, a Senior Architectural Historian and Preservation Planner of the 106 Group, the “800 List” was created 29 years ago in 1981, has never been updated, and thus, is vastly out of date and does not include properties that could have become significant over the last 29 years. The “800 List” effectively ceased to exist in 2001 when the City of Minneapolis adopted a new heritage preservation ordinance (Minneapolis Code of Ordinances, Chapter 599) that allowed the City to review properties individually and as groups to determine their potential significance and eligibility for historic designation by the City. Many properties on the “800 List” have been demolished, many more have changed over time and may have lost their historical integrity so that they would no longer be eligible for historic designation, and more importantly, many properties that are not on the “800 List” have been evaluated by the City of Minneapolis and been determined eligible for historic designation by the City.

61-11 | Another concern in the discussion on archaeological and historical resources is the study area for the project. The DEIS fails to adequately define the affected area. Again as noted by Greg Mathis, the DEIS identifies what it terms an “affected

## Responses

### Comment 61-8

Thank you for your comment. It has been noted and included in the record for this EIS.

### Comment 61-9

Text in Section 5.2.2.1 has been modified to clarify the difference in potential impacts between overhead and underground lines.

### Comment 61-10

The 800 List was one of several tools used to identify and evaluate historic properties within the context of the EIS. Properties listed on the NRHP and those that are potentially eligible for the NRHP were also evaluated. The 800 List is provided on the City of Minneapolis website as a tool for use in identifying local landmarks. The 800 List was used in the EIS to capture properties not included on the NRHP. In addition, a 2001 cultural resources study for a portion of the Project Area was used to supplement NRHP and 800 List information. Text in Section 5.3.2.2 has been modified to note that there may be potential for undocumented historic resources within the Project Area.

### Comment 61-11

Text in Section 5.3 has been modified to include a discussion of how the area of potential effect was determined. In addition, text was added throughout Section 5.3 to include data collected in a March 2010 study of Alignments A1, A2, and A3.

## Commenter 61 – Peter McLaughlin and Mark Stenglein

61-11 environment” and identifies an area for it; however, there is no rationale provided, the verbal description does not match the maps, and portions of the project, especially in the circumstance of the Hiawatha Substation which will be visible well beyond 0.1 mile as specified in the DEIS. An area of potential effects defined by the DEIS should adequately account for any physical, auditory, atmospheric, or visual impacts to historic properties, but it fails to do so.

61-12 In addition, based on a review by Mr. Mathis, Hennepin County has concerns that the cultural resource assessment did not adequately look at route alternatives individually, but only at proposed route alignments in one large area. In its application to the PUC, Xcel proposed, as part of the environmental review process, to conduct a pedestrian level cultural resource study on the selected route in order to determine the full extent of the impact on architectural historical resources. It’s the position of Hennepin County that additional work is needed for each of the individual alternatives. An area of potential effects must first be adequately identified and a thorough cultural resource investigation must then be completed for the DEIS to be adequate.

**Clarification of the purpose of acquisition of the 29<sup>th</sup> Street Railroad Corridor is requested.**

61-13 In Section 5.3.1.4 at page 145 of the DEIS, a statement about the purpose of Hennepin County Regional Railroad Authority’s acquisition of the 29th Street Corridor (Trench or Midtown Greenway) should be clarified. The Hennepin County Regional Railroad Authority acquired the railroad corridor for future transit and other transportation uses. On the 29<sup>th</sup> Street Railroad Corridor as with all of HCRRRA’s railroad corridors, bike usage is a complementary use.

In addition, for the purpose of clarification, placement of a high voltage transmission line on Hennepin County Regional Railroad Authority property will require consent of, and successful negotiation with, the Hennepin County Regional Railroad Authority as the property owner. Any placement of the proposed high voltage transmission line on the 29th Street Railroad Corridor may not conflict with the prior public uses for which the 29th Street Railroad Corridor was acquired and has been dedicated, including preservation for future rail and other transportation uses, historic preservation, a catalyst for economic development and for permitted bicycle trail uses by the City of Minneapolis. Unlike placement in roadway right of way where Xcel has certain statutory rights of use, no similar right of use exists over rail corridors acquired by regional railroad authorities for the placement of high voltage transmission lines. Accordingly, absent consent of the Hennepin County Regional Railroad Authority or a final non-appealable judgment allowing the successful exercise of eminent domain by Xcel over the 29th Street Railroad Corridor, the 29th Street Railroad Corridor is not available as an alternative route for the high voltage transmission lines proposed by Xcel.

## Responses

### Comment 61-12

A study was conducted at this level for Route A. If this route is not selected, a pedestrian level cultural resources study on the selected route could be required by the PUC as a permitting condition and conducted for the selected route prior to construction. Known cultural resources and historic properties located within 0.1 mile of the route and substation alternatives are discussed in Section 5.3 of the EIS.

### Comment 61-13

Text in Section 5.3.1.4 has been modified to note that Hennepin County Regional Railroad Authority acquired Midtown Greenway property for future transit and transportation uses, as well as complimentary bicycle usage.

## Commenter 61 – Peter McLaughlin and Mark Stenglein

ATTACHMENT A

Docket No. E-002/TL-09-38  
OAH Docket No. 15-250-20599-2



U.S. Department of Housing and Urban Development  
Minneapolis Field Office  
800 Second Avenue South  
Minneapolis, Minnesota 55404  
<http://www.hud.gov>

JUN 24 2009

Mr. Timothy Duncan  
Grandbridge Real Estate Capital  
One Ward Parkway, Suite 145  
Kansas City, MO 64112

Dear Mr. Duncan:

Subject: Longfellow Station Apartments Review  
Project Number: 092-TBD  
Project Name: Longfellow Station Apartments  
Project Location: Minneapolis, MN

We have reviewed the material submitted concerning Longfellow Station Apartments dated June 17, 2009 and concluded that we cannot invite the project for FHA financing because it has incurable conditions that do not meet several HUD Environmental and Compliance standards. The specific issues are as follows:

1. The proposed building is very close to both Hiawatha Avenue and 38th Street. Both are heavily traveled roads. We have determined that the location has inadequate separation of pedestrian and vehicular traffic, and is a dangerous intersection.

Your response was that traffic has trended down in the past few years since the Light Rail has been in service.

Analysis: This does not detract from the basic premise that it is located at the intersection of two heavily traveled roads.

2. The adjacent rail switching operations are too close to the proposed building to meet FHA standards.

Your response was that there is no active rail service and the trains have a speed of only 1-2 miles per hour.

Analysis: By this, you presumably mean no "through" service. However, the tracks are a switching operation. Whatever the train speed, the operation is an unacceptable hazard. Additionally, despite the slow trains, they are accompanied by considerable engine noise for accelerating and reversing direction as well as cars banging from coupling activities. The tracks are bolted, not welded, and that adds to the noise.

## Responses

## Commenter 61 – Peter McLaughlin and Mark Stenglein

Docket No. E-002/TL-09-38  
OAH Docket No. 15-2500-20599-2

3. The nearby rail crossing is an unacceptable risk to children and other tenants.

Your response was to refer to the response to # 2.

Analysis: This is still a dangerous hazard for a residential setting.

4. The combined road, rail and light rail traffic render the site unacceptable from excessive noise.

Your response was that you would do a noise study some time in the future.

Analysis: We have started an analysis, using your auto data, and only two of the three streets, Hinwatha and 38<sup>th</sup> Street. With those alone, and nothing on the railroad or light rail, the site noise level is in the Unacceptable noise range. It is unlikely that a properly conducted noise analysis will determine the site meets the HUD Noise Standard.

5. The surrounding land uses are incompatible with residential use.

Your response was that the City intends to improve the area and that the developer has purchased part of the rail right of way. You state that the switching operation will continue adjacent to the building, but speculate that sometime in the future ADM may sell the elevator site.

Analysis: The elevator with all the train and truck traffic is incompatible with residential use.

6. The overhead high voltage transmission lines are too close to the proposed building to be acceptable under HUD Compliance Standards.

Your response was that you have requested a letter from Xcel Energy.

Analysis: The lines are much too close to the proposed building. Unless they are removed, that is not acceptable. We see no reason to believe there is a reasonable probability that this high voltage electric line will be either moved or abandoned.

7. The industrial operation immediately to the North of the site has a high volume of truck traffic that is incompatible with residential uses.

Your response was that the trucks go slow, and deliveries are only between 6AM and 10PM.

Analysis: Regardless, the adjacent land use is incompatible with residential use.

8. Current and previous uses of the site suggest phase I and II environmental reviews will be required.

Your response was that you would submit Phase I and II Environmental reports and an appropriate RAP/CCP that was previously done.

## Responses

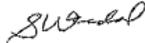
**Commenter 61 – Peter McLaughlin and Mark Stenglein**

Docket No. E-002/TL-09-38  
OAH Docket No. 15-2500-20599-2

Analysis: HUD must have the full Phase I & II studies and the RAP/CAP for analysis. It may eventually be determined acceptable, but we cannot invite an Application until we have that and complete our analysis.

If you have any questions regarding this, please contact Rachel Coleman, Project Manager, at 612-370-3000 (ext. 2273).

Very sincerely yours,



Scott Wardal, Operations Officer  
Minneapolis Multifamily Hub

**Responses**

## Commenter 62 – Joe Hesla

**From:** [apache@web.lmic.state.mn.us](mailto:apache@web.lmic.state.mn.us)  
**To:** [Storm, Bill \(COMM\)](#)  
**Subject:** Hesla Sun Feb 28 12:25:50 2010 E002/TL-09-38  
**Date:** Sunday, February 28, 2010 12:26:00 PM

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This public comment has been sent via the form at: [www.energyfacilities.puc.state.mn.us/publicComments.html](http://www.energyfacilities.puc.state.mn.us/publicComments.html)

You are receiving it because you are listed as the contact for this project.

Project Name: Xcel Energy Hiawatha 115 kV Transmission Line Project

Docket number: E002/TL-09-38

User Name: Joe Hesla

County: Hennepin County

City: Minneapolis

Email: [jhesla@juno.com](mailto:jhesla@juno.com)

Phone: 612-722-6473

62-1

Impact: Do not put the power line above ground. The health effects are unacceptable. Do the right thing and bury it. Financial costs are more but think of the seventh generation.

Mitigation:

Submission date: Sun Feb 28 12:25:50 2010

This information has also been entered into a centralized database for future analysis.

For questions about the database or the functioning of this tool, contact:

Andrew Koebrick  
[andrew.koebrick@state.mn.us](mailto:andrew.koebrick@state.mn.us)

## Responses

### Comment 62-1

Thank you for your comment. It has been noted and included in the record for this EIS.

## Commenter 63 – Allan Hildenbrand

**From:** [apache@web.lmic.state.mn.us](mailto:apache@web.lmic.state.mn.us)  
**To:** [Storm, Bill \(COMM\)](#)  
**Subject:** Hildenbrand Sun Feb 28 11:49:12 2010 E002/TL-09-38  
**Date:** Sunday, February 28, 2010 11:49:32 AM

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This public comment has been sent via the form at: [www.energyfacilities.puc.state.mn.us/publicComments.html](http://www.energyfacilities.puc.state.mn.us/publicComments.html)

You are receiving it because you are listed as the contact for this project.

Project Name: Xcel Energy Hiawatha 115 kV Transmission Line Project

Docket number: E002/TL-09-38

User Name: Allan Hildenbrand

County: Hennepin County

City: Minneapolis

Email: [Al@AlsElectricWorks.com](mailto:Al@AlsElectricWorks.com)

Phone: 6127225042

Impact: Gentle Folks;

Please receive this note as my strong support for placing the proposed Xcel high voltage transmission line buried along the South Minneapolis Greenway.

Of the various proposed routes across South Minneapolis, I understand the buried-in-the-Greenway route to have the lower of long term impacts for all. Placing the transmission cables underground dramatically decreases the long term human environmental stressors for the residents along the route.

I have formed my opinion out of decades of experience as an Electrical Contractor, Electrical Engineer and Electrical Consultant, and from studying the human bio-organism's interaction with low level electromagnetic fields.

Mitigation: The effects can be mitigated by placing the proposed high voltage transmission line underground along the Greenway Corridor.

## Responses

### Comment 63-1

Thank you for your comment. It has been noted and included in the record for this EIS.

63-1

## Commenter 63 – Allan Hildenbrand

Submission date: Sun Feb 28 11:49:12 2010

This information has also been entered into a centralized database for future analysis.

For questions about the database or the functioning of this tool, contact:

Andrew Koebrick  
andrew.koebrick@state.mn.us

## Responses

## Commenter 64 – Paul Hindemith

This public comment has been sent via the form at:  
[www.energyfacilities.puc.state.mn.us/publicComments.html](http://www.energyfacilities.puc.state.mn.us/publicComments.html)

You are receiving it because you are listed as the contact for this project.

Project Name: Xcel Energy Hiawatha 115 kV Transmission Line Project

Docket number: E002/TL-09-38

User Name: Paul Hindemith

County: Hennepin County

City: Minneapolis

Email: paulsvoice@gmail.com

Phone:

64-1

Impact: I am concerned that the project is in direct conflict of already established mission of the Greenway, which has been endorsed and lauded by the City of Minneapolis and its citizens. For a large company to say, "Thanks for clearing this land, we'll take it from here," is not only a slap in the face to the community, but also a step back for the future growth of the City.

This is slightly different than the usual "Not in my backyard" concern which is never a strong argument; even so, I'm sure others have already mentioned the environmental challenges faced by the neighborhoods adjacent to the project.

Mitigation:  
Don't ruin the Greenway and what it represents to the Citizens of Minneapolis. Please bury these lines.

Submission date: Tue Feb 9 08:55:15 2010

This information has also been entered into a centralized database for future analysis.

For questions about the database or the functioning of this tool, contact:

Andrew Koebrick  
[andrew.koebrick@state.mn.us](mailto:andrew.koebrick@state.mn.us)

## Responses

### Comment 64-1

Thank you for your comment. It has been noted and included in the record for this EIS.

Commenter 65 – Del Holmes

Responses



85 7th Place East, Suite 500, St. Paul, MN 55101-2198  
main: 651.296.4026 tty: 651.296.2860 fax: 651.297.7891  
www.commerce.state.mn.us

Public Comment Sheet  
DRAFT EIS  
Xcel Energy Hiawatha HVTL Project  
PUC Docket Number: E002/TL-09-38

Name:

Representing:

*Delmas Holmes (del)*

Address:

*1015 East 28th Street  
Mpls, MN 55407*

Email: *delholmes28@yahoo.com*

Comment:

*(on back)*

Please submit comments to meeting moderator or send to:

William Cole Storm  
MDOC  
85 7th Place East  
Suite 500  
St. Paul, MN 55101-2198

Email: [bill.storm@state.mn.us](mailto:bill.storm@state.mn.us)  
Voice: 651-296-9535  
Fax: 651-297-7891

Commenter 65 – Del Holmes

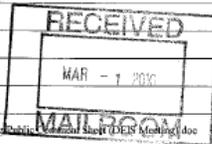


85 7th Place East, Suite 500, St. Paul, MN 55101-3198  
main: 651.296.4926 tty: 651.296.2850 fax: 651.297.7891  
www.commerce.state.mn.us

Comments Continued:

I have tried to attend all of the meetings that have been held for this project, I still do not understand why it has to be built in this densely populated area. Schools, hospital (Baptist) businesses and many multi dwellings. Electricity can be transferred very easily anywhere. this is put - it has to be underground. Not in the GREENWAY. The cost should be shared with all real customers. He who live in the city have been charged for things that happen in rural areas, they get to share our cost.

65-1



Responses

Comment 65-1

Thank you for your comment. It has been noted and included in the record for this EIS.

## Commenter 66 – Kate Hopper

This public comment has been sent via the form at:  
[www.energyfacilities.puc.state.mn.us/publicComments.html](http://www.energyfacilities.puc.state.mn.us/publicComments.html)

You are receiving it because you are listed as the contact for this project.

Project Name: Xcel Energy Hiawatha 115 kV Transmission Line Project

Docket number: E002/TL-09-38

User Name: Kate Hopper

County: Hennepin County

City: Minneapolis

Email: [katehopper@msn.com](mailto:katehopper@msn.com)

Phone: 612-721-3573

Impact: I'm very concerned about Xcel Energy's plan to put high voltage power lines on the Greenway bike path.

Health impacts of high voltage lines include childhood leukemia, and there are 2 public schools and several charter schools in the neighborhood alone that would be impacted, not to mention all the children that live in this neighborhood. Furthermore, this project is in opposition to the mission of the Greenway, which has the support of the Mayor, the City of Minneapolis, and the Citizens of Minneapolis.

Mitigation: Bury the lines.

Submission date: Wed Feb 10 12:17:08 2010

This information has also been entered into a centralized database for future analysis.

For questions about the database or the functioning of this tool, contact:

Andrew Koebrick  
[andrew.koebrick@state.mn.us](mailto:andrew.koebrick@state.mn.us)

66-1

## Responses

### Comment 66-1

Thank you for your comment. It has been noted and included in the record for this EIS.

## Commenter 67 – Thatcher Imboden

**From:** [Thatcher Imboden](#)  
**To:** [Storm, Bill \(COMM\)](#)  
**Subject:** Midtown Greenway High Voltage Power Lines  
**Date:** Saturday, February 13, 2010 9:29:16 AM

---

Mr. Storm,

67-1

I'm writing to you regarding the proposed Midtown Greenway High Voltage Power Line project. I am opposed to aerial high voltage wires in or adjacent the Midtown Greenway because it will have a negative impact on the ability of the corridor to accommodate significant growth because of the unattractiveness of the wires and concerns that potential employers and residents will have about health impacts, whether justified or perceived.

The Midtown Greenway corridor has changed significantly over time, going from an at-grade rail corridor with some industry to a depressed rail corridor with heavy industry, to an industrial corridor with less intensive uses, to now a recreational corridor with a mix of institutional, residential, industrial, and commercial uses. The vision for the corridor is to intensify the land uses and in many cases that intensity will come from increased housing facing the Greenway.

Clearly, there are many in the community that feel that there is a real power need within the corridor. I appreciate the willingness of Xcel to address the power need issues of today and tomorrow. However, by picking an aerial high voltage power line option in or adjacent the Greenway, there will be considerable damage done to the future economic growth of the area.

67-2

As a real estate professional, I have had the opportunity to learn a lot about the feasibility of development projects and of tenant wants and desires. The addition of tall poles and wires will make the area less attractive and create health concern by some employers, renters, or buyers. This will reduce the pool of potential buyers and renters, which ultimately makes the development more difficult to move from feasibility to reality.

As a business leader, I know our community wants economic growth to

## Responses

### Comment 67-1

Thank you for your comment. It has been noted and included in the record for this EIS.

### Comment 67-2

Thank you for your comment. It has been noted and included in the record for this EIS.

## Commenter 67 – Thatcher Imboden

67-3

support the existing businesses and to grow the market place. Whether its restaurants wanting more residents and employees to patronize their business, or a marketing company wanting more traditional office users to move in to increase their opportunities, businesses in the area want and need growth to occur. The proposed aerial wires present a substantial risk to that occurring.

67-4

Lastly, I want to recognize that there is a power need and that something will need to happen. Some have argued that localized power generators could be the answer. That may have some truth, but it probably isn't the sole answer. Between Xcel, Hennepin County, the City of Minneapolis, the Metropolitan Council, and the State of Minnesota, a creative solution must be found. It's in the interest of all those involved to find a way to bury the power lines or find a different route for them to take. To efficiently accommodate regional and local growth, its in everybody's interest to ensure the Midtown Greenway corridor remains as competitively positioned as possible.

Thank you,

Thatcher Imboden  
5845 Irving Avenue S.  
612-810-6642  
timboden@ouruptown.com

Midtown Greenway biker,  
Uptown business leader,  
The Ackerberg Group employee

## Responses

### Comment 67-3

Thank you for your comment. It has been noted and included in the record for this EIS.

### Comment 67-4

Thank you for your comment. It has been noted and included in the record for this EIS.

## Commenter 68 – Ryan Johnson

**From:** [apache@web.lmic.state.mn.us](mailto:apache@web.lmic.state.mn.us)  
**To:** [Storm, Bill \(COMM\)](#)  
**Subject:** Johnson Tue Mar 2 10:17:30 2010 E002/TL-09-38  
**Date:** Tuesday, March 02, 2010 10:17:56 AM

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This public comment has been sent via the form at: [www.energyfacilities.puc.state.mn.us/publicComments.html](http://www.energyfacilities.puc.state.mn.us/publicComments.html)

You are receiving it because you are listed as the contact for this project.

Project Name: Xcel Energy Hiawatha 115 kV Transmission Line Project

Docket number: E002/TL-09-38

User Name: Ryan Johnson

County:

City: Minneapolis

Email:

Phone:

**Impact:** Overhead transmission lines along the greenway will negatively affect the health, vision, and development of children living near the lines and children using the greenway. The neighborhood already deals with arsenic drift, lead dust, and air pollution from the downtown burner and does not need any additional environmental pollution for children.

**Mitigation:** Please consider burying the lines rather than putting them overhead.

Submission date: Tue Mar 2 10:17:30 2010

This information has also been entered into a centralized database for future analysis.

For questions about the database or the functioning of this tool, contact:

Andrew Koebrick  
[andrew.koebrick@state.mn.us](mailto:andrew.koebrick@state.mn.us)

68-1

## Responses

### Comment 68-1

Thank you for your comment. It has been noted and included in the record for this EIS.

## Commenter 69 – Bruce Karstadt

**From:** [apache@web.lmic.state.mn.us](mailto:apache@web.lmic.state.mn.us)  
**To:** [Storm, Bill \(COMM\)](#)  
**Subject:** Karstadt Fri Feb 26 09:39:26 2010 E002/TL-09-38  
**Date:** Friday, February 26, 2010 9:40:40 AM

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This public comment has been sent via the form at: [www.energyfacilities.puc.state.mn.us/publicComments.html](http://www.energyfacilities.puc.state.mn.us/publicComments.html)

You are receiving it because you are listed as the contact for this project.

Project Name: Xcel Energy Hiawatha 115 kV Transmission Line Project

Docket number: E002/TL-09-38

User Name: Bruce Karstadt

County: Hennepin County

City: Minneapolis

Email: [bruce.karstadt@americanswedishinst.org](mailto:bruce.karstadt@americanswedishinst.org)

Phone: 612 871 4907

Impact: I provide these comments in my capacity as CEO of the American Swedish Institute, which is situated at 26th and Park Avenue in Minneapolis. We are a part of the West Phillips neighborhood and are concerned about the Hiawatha Project for several reasons:

1. One of the alternative routes (Route B, I believe) brings the overhead transmission lines north along Oakland Avenue and then east along 26th Avenue. The consequence of this route would be to wrap these lines around the Institute's property. Today our property consists of the historic Turnblad mansion, one of Minneapolis' most significant historic, iconic structures. None of us can imagine anyone being serious about putting up these transmission lines around this historic structure. A second reason for our concern is that we are about to invest \$21 million in a new education and cultural center on our property, and this new investment would be seriously marred by these lines. We are deeply concerned not only about the aesthetic impact, but about the health and safety of our visitors and our neighboring residents along Oakland Avenue.

69-1

69-2

## Responses

### Comment 69-1

Thank you for your comment. It has been noted and included in the record for this EIS.

### Comment 69-2

Thank you for your comment. It has been noted and included in the record for this EIS.

## Commenter 69 – Bruce Karstadt

69-3

2. Though we are a non-profit business situated in the west Phillips neighborhood, we are deeply tied to this part of our community through our educational programming. We are rooted in the 19th C. immigrant experience. New arrivals are populating are community, and particularly in south Minneapolis. Our mission calls for us to bridge these periods in immigration history by connecting today's immigrants with our historic roots. As one example, we are working with Andersen school in a creative writing project with 3rd graders based upon students reading the stories of Pippi Longstocking in Spanish and English. All of this work gives us a great deal of empathy for our community and a strong desire to improve this neighborhood for all. Thus, we believe that wherever these transmission lines are placed, they should be UNDERGROUND...this is what this neighborhood deserves, as does each and every neighborhood in this city.

Mitigation: There's only one appropriate mitigation---put these transmission lines underground.

The preferred route would be along 28th Avenue.

Submission date: Fri Feb 26 09:39:26 2010

This information has also been entered into a centralized database for future analysis.

For questions about the database or the functioning of this tool, contact:

Andrew Koebrick  
andrew.koebrick@state.mn.us

## Responses

### Comment 69-3

Thank you for your comment. It has been noted and included in the record for this EIS.

## Commenter 70 – Andrew Koebrick

**From:** [apache@web.lmic.state.mn.us](mailto:apache@web.lmic.state.mn.us)  
**To:** [Storm, Bill \(COMM\)](#)  
**Subject:** Koebrick Thu Feb 25 10:09:51 2010 E002/TL-09-38  
**Date:** Thursday, February 25, 2010 10:10:23 AM

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This public comment has been sent via the form at: [www.energyfacilities.puc.state.mn.us/publicComments.html](http://www.energyfacilities.puc.state.mn.us/publicComments.html)

You are receiving it because you are listed as the contact for this project.

Project Name: Xcel Energy Hiawatha 115 kV Transmission Line Project

Docket number: E002/TL-09-38

User Name: Andrew Koebrick

County:

City: Minneapolis

Email:

Phone:

Impact: This line would be a visual blight. Run it underground or not at all.

Mitigation:

Submission date: Thu Feb 25 10:09:51 2010

This information has also been entered into a centralized database for future analysis.

For questions about the database or the functioning of this tool, contact:

Andrew Koebrick  
[andrew.koebrick@state.mn.us](mailto:andrew.koebrick@state.mn.us)

70-1

## Responses

### Comment 70-1

Thank you for your comment. It has been noted and included in the record for this EIS.

## Commenter 71 – Kim Kokett

**From:** [Kim Kokett](#)  
**To:** [Storm, Bill \(COMM\)](#)  
**Subject:** Comments on High Voltage Line threat to Midtown Greenway  
**Date:** Monday, February 08, 2010 6:39:38 PM

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71-1

Use any or all of the overall messages to get across and problems with the DEIS. You may increase the impact of your statements by telling some of your own story before, during, or after you address some of those points, explaining how the Hiawatha Project would impact you personally.

## Responses

### Comment 71-1

Thank you for your comment. It has been noted and included in the record for this EIS.

## Commenter 72 – Sue Leskela

**From:** [Sue Leskela](#)  
**To:** [Storm, Bill \(COMM\)](#)  
**Subject:** Comments on High Voltage Line threat to Midtown Greenway  
**Date:** Tuesday, March 09, 2010 8:38:11 PM

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Regarding the proposed Hiawatha Project power lines, I have the following concerns:

- 72-1 | First, I understand that no formal or complete needs assessment was done. I believe conservation and better use of more modern energy management and generation technology should be explored before a new power line and substations are approved.
- 72-2 | Problems with the DEIS:  
\*Not enough attention paid to electric and magnetic field impacts on health.
- 72-3 | \*Inadequate response to neighborhood concerns about the Hiawatha West substation site that would take away an important greenspace on the Greenway.
- 72-4 | \*Energy conservation is not addressed as a potential mitigation measure, but it should be in order to keep the lines and substations from expanding in the future. Ideally, the whole project should be avoided with conservation, alternative means of generating electricity locally including solar, and smart grid to tie it all together.
- 72-5 | GENERAL CONCERNS ABOUT THE PROJECT:  
\*Don't mess with the Greenway or our neighborhoods.  
  
\*If the lines have to go in, put them underground.  
  
\*Regarding Hiawatha substation, don't put the substation there, save our greenspace on the Greenway.

## Responses

### Comment 72-1

Thank you for your comment. It has been noted and included in the record for this EIS.

### Comment 72-2

A discussion of EMF appears in Sections 5.6.2.1 and 5.6.2.2 of the EIS.

### Comment 72-3

Text in Sections 5.2.1.3 and 5.2.2.2 has been modified to include information on the potential loss of green space at the Hiawatha West Substation location.

### Comment 72-4

See Comment 24-4, which addresses the same concern. A discussion of the applicability of a Certificate of Need is discussed in Section 2.2 of the EIS.

### Comment 72-5

Thank you for your comment. It has been noted and included in the record for this EIS.

## Commenter 72 – Sue Leskela

- 72-6** | \*Energy conservation should be a part of this project.
- 72-7** | \*Environmental justice:  
-Communities most impacted by the aesthetics and potential health risks are primarily low-income and people of color.
- 72-8** | -If the lines go in and are put underground instead of on overhead towers, the extra cost for underground should be paid for by the widest set of rate-payers possible, such all metro, or all state, or Xcel's entire midwest region.

## Responses

### **Comment 72-6**

Thank you for your comment. It has been noted and included in the record for this EIS.

### **Comment 72-7**

Thank you for your comment. It has been noted and included in the record for this EIS.

### **Comment 72-8**

Thank you for your comment. It has been noted and included in the record for this EIS.

## Commenter 73 – Ann Lewandowski

**From:** [apache@web.lmic.state.mn.us](mailto:apache@web.lmic.state.mn.us)  
**To:** [Storm, Bill \(COMM\)](#)  
**Subject:** Lewandowski Sat Feb 27 19:25:27 2010 E002/TL-09-38  
**Date:** Saturday, February 27, 2010 7:25:57 PM

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This public comment has been sent via the form at: [www.energyfacilities.puc.state.mn.us/publicComments.html](http://www.energyfacilities.puc.state.mn.us/publicComments.html)

You are receiving it because you are listed as the contact for this project.

Project Name: Xcel Energy Hiawatha 115 kV Transmission Line Project

Docket number: E002/TL-09-38

User Name: Ann Lewandowski

County: Hennepin County

City: Minneapolis

Email:

Phone:

73-1

Impact: The DEIS woefully underestimates the impact of option A (aboveground line along the Greenway). The Greenway is a linear park. A powerline of this size would not be considered around the Lakes or in other parks, and should not be considered along the Greenway. It would seriously diminish the aesthetic value of the space -- which is a valuable community asset.

73-2

The Greenway is also the location of future residential, commercial, and light industrial development. The powerline and transfer stations would substantially reduce the value and desirability of these areas for development. These impacts should be considered.

73-3

The cost of the various options should include the cost of maintenance. This would likely reduce the cost difference between the above-ground and belowground options. This is a more fair way to assess cost-benefits.

73-4

Mitigation: The belowground option is far preferable in an urban environment, and especially in this part of the city.

## Responses

### Comment 73-1

Thank you for your comment. It has been noted and included in the record for this EIS.

### Comment 73-2

Thank you for your comment. It has been noted and included in the record for this EIS.

### Comment 73-3

The issues of need, including size, type and timing; questions of alternative system configurations; or questions of voltage, were identified to be outside the scope of the EIS in the Scoping Decision, signed by the Director of the OES on September 3, 2009.

### Comment 73-4

Thank you for your comment. It has been noted and included in the record for this EIS.

## **Commenter 73 – Ann Lewandowski**

Submission date: Sat Feb 27 19:25:27 2010

This information has also been entered into a centralized database for future analysis.

For questions about the database or the functioning of this tool, contact:

Andrew Koebrick  
andrew.koebrick@state.mn.us

## **Responses**

Commenter 74 – Robert Lilligren



85 7th Place East, Suite 500, St. Paul, MN 55101-2198  
main: 651.296.4026 tpy: 651.296.2860 fax: 651.297.7891  
www.commerce.state.mn.us

Public Comment Sheet  
DRAFT EIS  
Xcel Energy Hiawatha HVTL Project  
PUC Docket Number: E002/TL-09-38

Name: Robert Lilligren Representing: myself  
Address: #1 2919 3rd Ave So Email: robert.lilligren@ci.minneapolis.mn.us  
Mpls, MN 55408

Comment: What I like: references to the demographics make up of impacted populations; references to historic assets; references to burying it; references to distributing costs broadly

74-1

What I don't like: lack of developed analysis on multiple substations (cost + area) \*  
lack of acknowledgment of cumulative negative environmental impacts from multiple sources on people in this project area

74-2

William Cole Storm  
MDOC  
85 7th Place East  
Suite 500  
St. Paul, MN 55101-2198

Email: bill.storm@state.mn.us  
Voice: 651-296-9335  
Fax: 651-297-7891

Please submit comments to meeting moderator or send to: \* also the lack of mitigation to minimize the profile of the substations - like partially burying the substation and bury the lines as they approach the substation

Responses

Comment 74-1

Thank you for your comment. It has been noted and included in the record for this EIS.

Comment 74-2

A discussion of the proposed designs for the substations appears in Sections 1.5 and 3.3 of the EIS. A discussion of the potential design for an underground substation appears in Section 3.4 of the EIS.

## Commenter 75 – Kevin Loecke

**From:** [apache@web.lmic.state.mn.us](mailto:apache@web.lmic.state.mn.us)  
**To:** [Storm, Bill \(COMM\)](#)  
**Subject:** Loecke Mon Mar 8 20:23:15 2010 E002/TL-09-38  
**Date:** Monday, March 08, 2010 8:23:27 PM

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This public comment has been sent via the form at: [www.energyfacilities.puc.state.mn.us/publicComments.html](http://www.energyfacilities.puc.state.mn.us/publicComments.html)

You are receiving it because you are listed as the contact for this project.

Project Name: Xcel Energy Hiawatha 115 kV Transmission Line Project

Docket number: E002/TL-09-38

User Name: Kevin Loecke

County: Hennepin County

City: Minneapolis

Email: [kloecke@yahoo.com](mailto:kloecke@yahoo.com)

Phone: 612-237-1038

75-1

Impact: I live half a block from the proposed route of the overhead transmission lines. I do not feel that the DEIS adequately addresses the seriousness of potential health effects of EMFs from the power lines. Although causation can not be proven beyond a doubt, there is strong enough correlation with serious negative health impacts on children to justify precautions being taken when routing lines through neighborhoods. My fiance and I are proud to have made Phillips our home, and as we look towards having a child and raising a family, we will not choose to raise that child in a dangerous, potentially cancerous environment. Phillips is a diverse community with many young families who can not afford to move elsewhere, Xcel bears responsibility for being sensitive to the needs of the community when determining how to plan it's projects.

75-2

The DEIS also does not adequately take into account the uniqueness of the Midtown Greenway as a space for safe alternative transportation and urban greenery. The proposed project will have a strong negative impact on the Greenway aesthetically, environmentally and practically. The siting of the substation on the newly planted green space at the Hiawatha end of the Greenway should be rejected.

## Responses

### Comment 75-1

A discussion of EMF appears in Sections 5.6.1.2 and 5.6.2.2 of the EIS.

### Comment 75-2

Thank you for your comment. It has been noted and included in the record for this EIS.

## Commenter 75 – Kevin Loecke

75-3

Mitigation: The overhead power line option must be eliminated from consideration. Burying of the lines along the proposed route is a minimally acceptable mitigation and it is good that the DEIS recognized this option as preferable.

75-4

However, a wider range of mitigating factors should be taken seriously and explored as alternatives to the project as proposed. Utilization of alternative methods of generating energy such as solar panels throughout the neighborhood, smart use of energy conservation methods, and a more decentralized distribution grid are essential mitigating factors to take into consideration. If creative alternatives can solve the problem of the need for greater energy distribution and generation without the extremely damaging negative impacts on the community and environment, these must be considered and implemented.

Submission date: Mon Mar 8 20:23:15 2010

This information has also been entered into a centralized database for future analysis.

For questions about the database or the functioning of this tool, contact:

Andrew Koebrick  
andrew.koebrick@state.mn.us

## Responses

### Comment 75-3

Thank you for your comment. It has been noted and included in the record for this EIS.

### Comment 75-4

See response to Comment 20-7, which addresses the same concern.

## Commenter 76 – Longfellow Community Council

LONGFELLOW COMMUNITY COUNCIL  
ENVIRONMENT AND TRANSPORTATION COMMITTEE  
Hiawatha Transmission Line Project  
Draft Environmental Impact Statement  
COMMENTS  
March 9, 2010

Members of the Longfellow Community Council Longfellow Environment and Transportation Committee have reviewed the DEIS with respect to how the proposed project will affect environmental and transportation resources in the Longfellow neighborhood and have prepared these comments. Our comments will focus on the portion of the DEIS that deals with the proposed Hiawatha substation.

76-1 | Several hundred trees and shrubs were planted on the east side of Hiawatha around the Midtown Greenway and surrounding the eastern approach to the Sabo Bridge. Over half of this developed park space could be destroyed if Xcel's preferred location, the Hiawatha West substation, is developed. The destruction of this developed park space was not adequately analyzed in the DEIS, it was hardly even mentioned.

To back up our assertion that this area has been designated as greenspace for nearly a decade and its importance to the surrounding communities, we have attached the Direct Testimony of Environment and Transportation Committee member Eric Hart, which was filed as part of the PUC Contest Case Hearing process. The testimony of Eric Hart is referred to below as "Hart Direct Testimony p. \_" and the schedules which were part of that testimony, in the text below as "Hart Direct Schedule \_"

Below are our detailed comments, by section and page number.

### III. Affected Environment, Impacts, and Mitigation

76-2 | *Recreation and Tourism* (p. 13)  
No acknowledgement is made of the destruction of developed park space on the site of and surrounding the proposed Hiawatha West substation site. See Hart Direct Schedules 6 and 7 for the landscape plan of the planted park space that would be destroyed by the proposed Hiawatha West substation. The project would also have an effect on the Midtown Greenway

76-3 | trail, impacting users of the trail both on a temporary basis (when construction may require the re-routing or temporary closure of the trail) and permanently (when a new substation will have permanent, adverse impacts to the trail use experience as people pass by the industrial wall of the substation or look at it from vantage points on the Sabo Bridge). In addition, the creation of a highly-visible substation and industrial wall next to the Sabo Bridge would undoubtedly compromise one of the iconic entrances to Downtown Minneapolis that many visitors see while traveling on Hiawatha Avenue and the Hiawatha LRT.

76-4 | *Flora* (p. 14)  
76-5 | This section needs to acknowledge the major loss of trees and shrubs in the park area where the Hiawatha substation is proposed. 258 trees and shrubs will be lost if the Hiawatha

## Responses

### Comment 76-1

Text in Section 5.2.1.3 has been supplemented with information on tree plantings at the Hiawatha West Substation location. Potential impacts to the tree plantings at Hiawatha West are discussed in applicable sections of the EIS.

### Comment 76-2

See response to Comment 76-1, which addresses the same concern.

### Comment 76-3

A discussion of potential temporary impacts to the Midtown Greenway during construction of the Project appears in Section 5.16.2.1 of the EIS.

### Comment 76-4

Thank you for your comment. It has been noted and included in the record for this EIS.

### Comment 76-5

Text in Section 5.2.1.3, 5.10.2.2, and the Executive Summary has been modified and supplemented to include information on the potential removal of trees at the Hiawatha West Substation site.

## Commenter 76 – Longfellow Community Council

76-5 | substation is placed on its proposed substation, hardly a 'limited' impact. The loss of the vast majority of these trees and shrubs will be permanent since the substation takes up the greater part of the area that was planted and only a few shorter and more compact species could be planted around the outside of the substation walls as replacements. Substantial mitigation efforts need to be explored to replace all of the trees and shrubs lost in the adjacent area, preferably in the density and configuration they are in now, as well as the replacement of an equal area of publicly accessible open space that would be lost to the substation footprint.

### Table ES-1: Summary of Impacts

#### 5.8 – Aesthetics (p. 23)

76-6 | No mention of the aesthetic impact of the removal of 258 trees and shrubs in the proposed substation area is made. These trees and shrubs were planted in the area to improve its aesthetics and create park space, so removal of these trees and shrubs and their replacement with a large industrial substation would have a huge impact on aesthetics. In addition, the proposed architectural wall that will surround the substation will be a significant adverse impact on aesthetic resources. The wall will be a stark contrast than the existing condition of the site, which is dominated by maintained vegetation. It is necessary also to consider the future aesthetic intent of the site, which was planned to be an open parklike setting with mature tree canopy and understory vegetation. The wall will endure only as an industrial facade. The Environment & Transportation Committee is concerned that the wall will become an easy target for graffiti vandalism, a consistent problem in the neighborhood and one that has been evidenced at Xcel's Southtown substation (40th & Hiawatha). Finally, the aesthetic impact of the substation needs to be analyzed from different vantage points not included in the DEIS, including views from the Midtown Greenway, the Sabo Bridge, and the elevated Hiawatha LRT tracks.

76-7 | 5.10 – Flora (p. 24)  
76-8 | The 6th line of this part of the table should include the number of trees and shrubs lost to the proposed Hiawatha substation location – 258 – just like is done for the powerline routes. There could also be impacts on trees and shrubs planted in the area just north of the substation (the 2008 Arbor Day planting site) from power lines which should be mentioned. See Hart Direct Testimony p. 5-6 and Hart Direct Schedules 6 and 7 for details and plans for these plantings.

76-9 | This line in section 5.10 also misidentifies the proposed substation site as "Hiawatha East". Suggested replacement text for this line: "258 trees and shrubs planted on Arbor Day 2009 will be lost if the proposed Hiawatha West substation is sited in Xcel Energy's preferred location and some trees from the 2008 planting could be lost due to the routing of power lines over this site."

76-10 | 1.5.1.1: Hiawatha West (Applicant's Preferred Location) (p. 42)  
76-11 | Description of the site does not acknowledge the 258 trees and shrubs that will have to be removed from the site before the substation would be built. The description that this is a 'vacant lot' is not accurate and should be corrected to acknowledge the planting that is there.

#### 5.1.2.2: Substation Locations (p. 88)

## Responses

### Comment 76-6

See response to Comment 76-5, which addresses the same concern.

### Comment 76-7

Thank you for your comment. It has been noted and included in the record for this EIS.

### Comment 76-8

Simulated views of the substations and transmission line route alternatives are presented in Figures 5.8-3 through 5.8-21. These figures provide similar views of the substations as those requested. Due to the uniform substation walls proposed for all four sides of each substation, views and resulting impacts from each vantage surrounding the substations would be similar.

### Comment 76-9

See response to Comment 76-5, which addresses the same concern.

### Comment 76-10

Text in Section 5.10 has been edited to note the correct substation.

### Comment 76-11

Text in Section 1.5.1.1 has been modified to note the use of the Hiawatha West substation as an undeveloped green space with newly planted trees.

## Commenter 76 – Longfellow Community Council

- 76-12** Description of the site does not acknowledge the 258 trees and shrubs that will have to be removed from the site before the substation would be built. The description that this is a 'vacant lot' is not accurate and should be corrected to acknowledge the planting that is there.
- 5.2.1.3: Federal, State, and Local Government Planning  
City Comprehensive Plans (p. 109)*
- 76-13** The mention of the Minneapolis Parks and Recreation Board (MPRB) Comprehensive Plan under the Minneapolis Plan discussion misrepresents the area that is identified as a future growth area and in need of more greenspace. The area of the proposed Hiawatha Substation is included in the MPRB comprehensive plan as a growth area both in the Hiawatha and Midtown Greenway corridors. See Hart Direct Testimony p. 4-5 and Hart Direct Schedule 4. Because its importance to park and green space planning, the MPRB Comprehensive Plan should be called out in a separate section under City Comprehensive Plans, not lumped with the Minneapolis Plan.
- 5.2.1.3: Federal, State, and Local Government Planning  
Seward Longfellow Greenway Area Land Use and Pre-Development Study (p. 118)*
- 76-14** This section failed to mention that this plan identifies the need for more the need for additional trees and green space in the industrial area near Hiawatha Avenue. The proposed Hiawatha West substation location is identified on a map in the Land Use portion of this plan as an area proposed for "Industrial Park Reforestation". See Hart Direct Testimony p. 3-4 and Hart Direct Schedule 2.
- 5.2.1.3: Federal, State, and Local Government Planning  
Other Small Area Plans (p. 122)*
- 76-15** The East End Revival Plan (2001) is an important plan that should be included in this section but is not. Created by the Longfellow Community Council and the Corcoran Neighborhood Organization, it was the first to recommend that the area where the Hiawatha West substation is proposed be used for community green space and open space. See Hart Direct Testimony p. 3 and Hart Direct Schedule 1.
- 5.4.1.3: Land –Based Economies  
Forestry (Urban) (p. 181)*
- 76-16** While the definition of 'urban forest' is broad in the first paragraph, the definition is quickly narrowed to only include street trees. This is an inaccurate interpretation of the term 'urban forest' and automatically rules out the importance of large plantings of trees and shrubs in park settings like were done in the area of the proposed Hiawatha West substation. The City of Minneapolis Urban Forest Policy does not support this narrow interpretation. The definition should not be restricted to street trees only and acknowledge that large scale urban reforestation efforts are a key part of the urban forest.
- 5.4.2.3: Land –Based Economies  
Forestry (Urban) (p. 194)*
- 76-17** In keeping with the narrow definition of 'urban forest' contained on p. 181, this section does not mention substation impacts at all and does not acknowledge the 258 trees and shrubs that will have to be removed from the proposed Hiawatha substation site before the substation

## Responses

### Comment 76-12

See response to Comment 76-5, which addresses the same concern.

### Comment 76-13

Text in Section 5.2.1.3 has been modified and supplemented to include information on the MPRB Comprehensive Plan.

### Comment 76-14

Text in Section 5.2.1.3 has been supplemented to include information on the Industrial Park Reforestation. Text in Section 5.2.2.2 was modified to note the potential loss of green space at the Hiawatha West Substation site.

### Comment 76-15

Text in Section 5.2.1.3 has been supplemented to include information on the East End Revival Plan.

### Comment 76-16

Text in Section 5.4.1.3 has been modified and supplemented to include information on parks and large scale urban reforestation efforts.

### Comment 76-17

Text in Section 5.4.2.3 has been modified to reflect the potential loss of trees at the Hiawatha West Substation location.

## Commenter 76 – Longfellow Community Council

- 76-17 | could be built. These trees and shrubs provide all of the benefits from trees detailed on p. 181 but their destruction is not acknowledged nor is the loss of benefits that they provide.
- 76-18 | *5.5.2: Direct-Indirect Effects* (p. 209)  
Bulleted list in the third paragraph should include the bullet: “Loss of park land and open space resources” to acknowledge the destruction of the park land developed where the Hiawatha West substation is proposed.
- 76-19 | *5.5.2.3: Comparison of Alternatives  
Aesthetics and Quality of Life* (p. 229)  
A paragraph should be included in this section about the proposed Hiawatha West substation site which would remove a large developed green space, similar to the way that the proposed Mt-28N substation location would for the Midtown Substation. The impacts of the Mt-28N substation are mentioned in this section so the Hiawatha West site should be as well.
- 76-20 | *5.7: Recreation and Tourism*  
While the park/green space is not an officially designated park, it was developed as a passive recreation area to serve users of the Midtown Greenway and residents of the nearby area. As such, it should be acknowledged in section 5.7.1.4 “Other Recreational Opportunities” (p. 268). In addition, the creation of a highly-visible substation and industrial wall next to the Sabo Bridge would undoubtedly compromise one of the iconic entrances to Downtown Minneapolis that many visitors see while traveling on Hiawatha Avenue and the Hiawatha LRT, as well as the experience of Midtown Greenway trail users.
- 76-21 | *5.7.2.2: Substation Alternatives  
Hiawatha Substation* (p. 276)  
In this section, it is argued that the area around the proposed Hiawatha West substation site is industrial in character anyway, so a new substation would not harm the aesthetics of the area. The green space developed to the south of the Midtown Greenway was developed precisely to improve the aesthetics of the area and destroying this green space by placing the substation there would harm the aesthetics of the area. The area is becoming less industrial and thousands of users see the site daily, including passengers in the LRT from the elevated tracks, motorists on Hiawatha Avenue, and users of the Midtown Greenway – not just users of the industrial area. The green space also helps emphasize the Sabo bridge which is another important and visually striking non-industrial part of the area.
- 76-22 | *5.10 Flora*  
*5.10.2.2: Substation Alternatives* (p. 316)  
Description of the impacts to the flora on the proposed Hiawatha West substation only mention in passing the 258 trees and shrubs will be lost if this substation is built. It also does not acknowledge that many of those trees and shrubs are native species. Construction of the substation on this site has a much larger impact on the area flora than is acknowledged in the text. The Hiawatha West site is also likely to adversely impact other trees and shrubs planted north of the Midtown Greenway adjacent to the Sabo Bridge since powerlines from the substation will pass through that area requiring the removal and trimming of vegetation already

## Responses

### Comment 76-18

The EIS recognizes the loss of green space should the Hiawatha West Substation site be selected. However, no designated park land would be lost. This is discussed in Sections 5.2.2.2 and 5.5.2.3 of the EIS.

### Comment 76-19

Text in Sections 5.2.2.2, 5.4.2.1, and 5.5.2.3 has been modified and supplemented to note the potential loss of green space at the Hiawatha West Substation site.

### Comment 76-20

Thank you for your comment. It has been noted and included in the record for this EIS.

### Comment 76-21

Text in Section 5.7.2.2 has been modified to include information on the Hiawatha West Substation location.

### Comment 76-22

See response to Comment 76-5, which addresses the same concern.

## Commenter 76 – Longfellow Community Council

- 76-22** | there. The native trees planted on that site will all eventually get taller that is allowed under powerlines, requiring major and disfiguring pruning.
- 5.13 Air Quality and Climate*  
*5.13.2.2: Substation Alternatives*  
*Hiawatha Substation* (p. 336)
- 76-23** | The City of Minneapolis has set targets in its Sustainability Plan to reduce the number of days with moderately healthy air and all monitored air toxins. Trees help to clean the air by processing carbon dioxide and emitting oxygen. This carbon sequestration is central to combatting global climate change. Trees also decrease ozone levels in cities, a major cause of asthma. The young trees at the Hiawatha West site will be part of all of these environmental and social benefits if allowed to mature.
- 5.16 Transportation and Public Services*  
*5.16.2.2: Substation Alternatives*  
*Hiawatha West Substation* (p. 369-70)
- 76-24** | Many trail users enjoy the Greenway precisely because it is a zone virtually free of motorized vehicles. The road parallel road immediately to the south – Lake Street – is far too high volume for most users to feel comfortable. The parallel road immediately to the north – 26<sup>th</sup> Street – is also high speed and high volume, and has been long-acknowledged to have a dangerous multiple-threat intersection for bicyclists and pedestrians (free right turns onto and off of 26<sup>th</sup> Street, free left turns off Hiawatha onto 26<sup>th</sup> with green arrows, poor driver compliance with a crosswalk adjacent to the Hiawatha LRT tracks). Routing trail users to the north or south during construction is entirely unacceptable. Temporary rerouting of the trails through green space north of the Greenway trails is also unacceptable. The Longfellow Environment & Transportation Committee requests that construction period re-routing scenarios for the Midtown Greenway be properly addressed in the DEIS, and that the particular nature of non-motorized trail users be taken into account.
- Inaccuracies or Mistakes Throughout the Document**
- Height of Walls Around Proposed Hiawatha Substations**
- 76-25** | The text is not consistent about the height of the walls around the proposed Hiawatha substations, some places say 12 feet, others 22 feet. Here are the page numbers associated with the two different heights:  
12 feet: pp. 42, 70, 256  
22 feet: pp. 297, 298, 303-04
- Name of Business**
- 76-26** | The name of the existing business on the proposed Hiawatha East substation site is Crew2. It is incorrectly identified in several places in the text and figures as just 'Crew'.

## Responses

### Comment 76-23

Thank you for your comment. It has been noted and included in the record for this EIS.

### Comment 76-24

Thank you for your comment. It has been noted and included in the record for this EIS.

### Comment 76-25

Text in Sections 3.3.1.1, 3.3.1.2, 3.3.1.3, 5.8.2.2, and the Executive Summary has been modified to include information on the proposed heights of the substation walls. The proposed height of the wall surrounding the Hiawatha Substation is 12 feet; the proposed height of the wall surrounding the Midtown Substation is 20 feet.

### Comment 76-26

Text throughout the EIS has been edited to correct the noted error.

## Commenter 76 – Longfellow Community Council

### Comments on Simulated Views and Land Use Maps

76-27

*Figures 5.2-1, 5.4-1, and 5.7-1: Land Use and Parks base maps*

All of these land use maps have the Midtown Greenway stopping at Hiawatha Avenue. The green color that designates the Greenway corridor west of Hiawatha is not shown at all east of Hiawatha Avenue. The Greenway continues over the Sabo Bridge south through the developed green space and east along the existing rail corridor and off the edge of the maps. The Green color (Park/Playground/Recreation Area designation) should be placed on the route of the Greenway east of Hiawatha and the area at the east end of the Sabo Bridge (as described in Hart Direct Schedules 6 and 7).

76-28

*Figures 5.8-7 and 5.8-8 Simulated View of Aboveground Hiawatha West Substation*

This rendering is too far away from the substation site to be of any use, the substation cannot be found in the rendering unless one knows the area very well. It does not address the closeness and scale of the substation which thousands LRT passengers and users of the Midtown Greenway would see every day. A more meaningful view would be from the LRT bridge in the vicinity of 28th Street looking east and south. Another view should be created which looks south from the intersection of the Midtown Greenway and Hiawatha LRT Bicycle Trail, or part way down the east ramp approach to the Sabo Bridge.

## Responses

### Comment 76-27

Figures 5.2-1, 5.4-1, and 5.7-1 have been modified to show the location of the Midtown Greenway east of Hiawatha Avenue.

### Comment 76-28

Simulated views of the substations and transmission line route alternatives are presented in Figures 5.8-3 through 5.8-21. These figures provide similar views of the substations as those requested. Due to the uniform substation walls proposed for all four sides of each substation, views and resulting impacts from each vantage surrounding the substations would be similar.

## Commenter 77 – Thomas Manley

**From:** [apache@web.lmic.state.mn.us](mailto:apache@web.lmic.state.mn.us)  
**To:** [Storm, Bill \(COMM\)](#)  
**Subject:** Manley Sun Feb 28 12:16:17 2010 E002/TL-09-38  
**Date:** Sunday, February 28, 2010 12:16:42 PM

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This public comment has been sent via the form at: [www.energyfacilities.puc.state.mn.us/publicComments.html](http://www.energyfacilities.puc.state.mn.us/publicComments.html)

You are receiving it because you are listed as the contact for this project.

Project Name: Xcel Energy Hiawatha 115 kV Transmission Line Project

Docket number: E002/TL-09-38

User Name: Thomas Manley

County: Hennepin County

City: Minneapolis

Email: [tomm101@aol.com](mailto:tomm101@aol.com)

Phone: 612-729-9011

Impact: I live near the proposed high voltage line in S Minneapolis. They are dangerous in populated areas and cause long term health problems. I would like them to be buried rather than overhead.

Mitigation:

Submission date: Sun Feb 28 12:16:17 2010

This information has also been entered into a centralized database for future analysis.

For questions about the database or the functioning of this tool, contact:

Andrew Koebrick  
[andrew.koebrick@state.mn.us](mailto:andrew.koebrick@state.mn.us)

## Responses

### Comment 77-1

Thank you for your comment. It has been noted and included in the record for this EIS.

77-1

## Commenter 78 – George Mathews

This public comment has been sent via the form at:  
[www.energyfacilities.puc.state.nm.us/publicComments.html](http://www.energyfacilities.puc.state.nm.us/publicComments.html)

You are receiving it because you are listed as the contact for this project.

Project Name: Xcel Energy Hiawatha 115 kV Transmission Line Project

Docket number: E002/TL-09-38

User Name: George Mathews

County: Hennepin County

City: Minneapolis

Email: [george.mathews@gmail.com](mailto:george.mathews@gmail.com)

Phone: 612-823-6244

- 78-1 → Impact: 1. Loss of potential green space between Portland Ave and Oakland Ave. The people at MidtownGreenway.org have proposed an 'art park' for the same location.
- 78-2 → 2. Property Values in the area will decrease due to the presence of the industrial look/feel of the electrical substation between Portland/Oakland.
- 78-3 → 3. Health effects of putting a substation so close to high-occupancy housing (much of which is low income).
- 78-4 → 4. Loss of potential multi-unit residential development between Portland and Oakland.
- 78-5 → 5. increase of criminal activity (graffiti) around the electrical substations.
- 78-6 → 6. Xcel is mostly interested in supplying power to meet load requirements for Peak demand, which is typically on hot days in the summer due to Air Conditioning demands. I did not see any suggestions in their documents to reduce peak demand such as painting commercial roofs white or creating 'green roofs' similar to those on the Target Center and Down town library.
- 78-7 → 7. Xcel mentions that Photovoltaic (PV) power is too expensive to be an option for the amount of power that is needed by the south Minneapolis area. However they fail to mention that PV prices have decreased almost 30% in the past 2 years, and are projected to continue to fall for the foreseeable future. If the cost reductions continue at the current pace, PV electricity generation would be competitive with, or less expensive than Coal in less than 10 years.
- 78-8 → 8. Xcel does not mention any alternatives for storing electricity locally (ie. large battery banks). This is an emerging technology, but is being used widely in Europe.
- 78-9 → Mitigation: 1. Xcel should look for more ways to work with large electricity users in the area to reduce their peak electrical demand.

## Responses

### Comment 78-1

Thank you for your comment. It has been noted and included in the record for this EIS.

### Comment 78-2

Thank you for your comment. It has been noted and included in the record for this EIS.

### Comment 78-3

Thank you for your comment. It has been noted and included in the record for this EIS.

### Comment 78-4

Thank you for your comment. It has been noted and included in the record for this EIS.

### Comment 78-5

Thank you for your comment. It has been noted and included in the record for this EIS.

### Comment 78-6

Thank you for your comment. It has been noted and included in the record for this EIS.

### Comment 78-7

Thank you for your comment. It has been noted and included in the record for this EIS.

### Comment 78-8

Thank you for your comment. It has been noted and included in the record for this EIS.

### Comment 78-9

Thank you for your comment. It has been noted and included in the record for this EIS.

## Commenter 78 – George Mathews

- 78-10** → 2. Xcel should give more incentives (rebates and credits) for residential and business customers to reduce their daily and peak demand.
- 78-11** → 3. Xcel should look for more options for local power generation (Solar, small natural gas generators used at major electricity users such as Wells Fargo, and Abbot).
- 78-12** → 4. Xcel should re-run their cost estimates for solar power options to include cost reductions in PV power that will occur as the technology improves.
- 78-13** → Placing the Midtown electrical substation on the Wells Fargo property, on their mostly un-used parking lot near 35W would be preferable to the current plan to place the substation on the greenway between Portland and Oakland because that parking lot is not a residential area, and is not a prime area for future residential development as stated in the Midtown Greenway Land use plan on file with the city of Minneapolis.
- 78-14** → The power lines (if needed) should be buried underground.

Submission date: Thu Feb 11 12:29:27 2010

This information has also been entered into a centralized database for future analysis.

For questions about the database or the functioning of this tool, contact:

Andrew Koebrick  
andrew.koebrick@state.mn.us

## Responses

### Comment 78-10

Thank you for your comment. It has been noted and included in the record for this EIS.

### Comment 78-11

Thank you for your comment. It has been noted and included in the record for this EIS.

### Comment 78-12

Thank you for your comment. It has been noted and included in the record for this EIS.

### Comment 78-13

Thank you for your comment. It has been noted and included in the record for this EIS.

### Comment 78-14

Thank you for your comment. It has been noted and included in the record for this EIS.

Commenter 79 – Terin Mayer



85 7th Place East, Suite 500, St. Paul, MN 55101-2198  
main: 651.296.4026 tpy: 651.296.2860 fax: 651.297.7891  
www.commerce.state.mn.us

Public Comment Sheet  
DRAFT EIS  
Xcel Energy Hiawatha HVTL Project  
PUC Docket Number: E002/TL-09-38

Name: Terin Mayer Representing: \_\_\_\_\_

Address: 2501 34th Ave S  
Minneapolis, MN 55406 Email: terin.mayer@gmail.com

Comment: I'd like to praise the DEIS for recognizing the environmental justice risks of requiring local residents to unfairly pay for the cost of the project and encourage the PUC and Xcel to spread the project cost over the widest number of rate-payers possible.

79-1

As a frequent Greenway user I also urge more attention be paid on alternative locations for the Hiawatha substation. DON'T TAKE AWAY ANY GREENSPACE!

79-2

Also - what about conservation as a mitigation measure?

Please submit comments to meeting moderator or send to:

William Cole Storm  
MDOC  
85 7th Place East  
Suite 500  
St. Paul, MN 55101-2198

Email: bill.storm@state.mn.us  
Voice: 651-296-9535  
Fax: 651-297-7891

Responses

Comment 79-1

Thank you for your comment. It has been noted and included in the record for this EIS.

Comment 79-2

Thank you for your comment. It has been noted and included in the record for this EIS.

## Commenter 80 – Andrew McClure

This public comment has been sent via the form at:  
[www.energyfacilities.puc.state.mn.us/publicComments.html](http://www.energyfacilities.puc.state.mn.us/publicComments.html)

You are receiving it because you are listed as the contact for this project.

Project Name: Xcel Energy Hiawatha 115 kV Transmission Line Project

Docket number: E002/TL-09-38

User Name: Andrew McClure

County: Hennepin County

City: Minneapolis

Email: [andy@andymcclure.com](mailto:andy@andymcclure.com)

80-1

Impact: A great deal of lip service is paid to seeking out long-term solutions to environmental concerns. If the city of Minneapolis and the state of Minnesota aspire to be "green," this is an opportunity to reaffirm that stance. If we allow our beautiful Midtown Greenway to be sullied by high-voltage lines in order to save Xcel Energy a few bucks, we will make it clear how we really feel about our commitment to environmentally sound practices.

I agree with the position adopted by the Midtown Greenway Coalition: We oppose Xcel Energy's proposal to route high voltage transmission lines through the heart of South Minneapolis, and call instead for locally-based, green energy solutions to meet the needs of our vibrant community.

It is my sincere hope that our government will support the overwhelming preferences of the public in this matter.

80-2

Mitigation: I don't believe this to be a routing issue, but rather one of philosophy towards improvement. Rather than seek an alternate route for the lines, I would prefer to see alternative solutions: "smart" power grids, assessment of the highest-drawing users and/or alternative energy.

For example, one of the largest users of power in this area is Abbot Northwestern. An attempt to analyze their power usage could easily reveal a huge opportunity for conservation. Also, the largest businesses along the route could research solar panels on their roofs; this would not supply all of their energy needs, but could greatly reduce their dependency on the grid.

These would not be complete solutions, but they would represent a long-term commitment to improving the entire infrastructure.

Submission date: Thu Feb 18 10:14:44 2010

This information has also been entered into a centralized database for future analysis.

For questions about the database or the functioning of this tool, contact: Andrew Koebrick  
[andrew.koebrick@state.mn.us](mailto:andrew.koebrick@state.mn.us)

## Responses

### Comment 80-1

Thank you for your comment. It has been noted and included in the record for this EIS.

### Comment 80-2

Thank you for your comment. It has been noted and included in the record for this EIS.

## Commenter 81 – Margo McCreary

**From:** [apache@web.lmic.state.mn.us](mailto:apache@web.lmic.state.mn.us)  
**To:** [Storm, Bill \(COMM\)](#)  
**Subject:** McCreary Sun Mar 7 11:54:45 2010 E002/TL-09-38  
**Date:** Sunday, March 07, 2010 11:58:30 AM

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This public comment has been sent via the form at: [www.energyfacilities.puc.state.mn.us/publicComments.html](http://www.energyfacilities.puc.state.mn.us/publicComments.html)

You are receiving it because you are listed as the contact for this project.

Project Name: Xcel Energy Hiawatha 115 kV Transmission Line Project

Docket number: E002/TL-09-38

User Name: Margo McCreary

County: Hennepin County

City: Minneapolis

Email: [mcc@mm.com](mailto:mcc@mm.com)

Phone: 612-735-7296

81-1

Impact: I think that the greenway is such an incredible space and it would be a real detriment to the openness of it. Also, I'm concerned about the health issues.

Mitigation: If you have to put the power lines in please put them underground.

Submission date: Sun Mar 7 11:54:45 2010

This information has also been entered into a centralized database for future analysis.

For questions about the database or the functioning of this tool, contact:

Andrew Koebrick  
[andrew.koebrick@state.mn.us](mailto:andrew.koebrick@state.mn.us)

## Responses

### Comment 81-1

Thank you for your comment. It has been noted and included in the record for this EIS.

## Commenter 82 – Midtown Greenway Coalition



**Paula Goodman Maccabee, Esq.**  
*Just Change Law Offices*  
1961 Selby Ave., St. Paul, Minnesota 55104, pmaccabee@visi.com  
Ph: 651-646-8890, Fax: 651-646-5754, Cell 651-775-7128

March 10, 2010

William Storm  
Office of Energy Security  
Minnesota Department of Commerce  
85- 7th Place East, Suite 500  
St. Paul, MN 55101-2198  
bill.storm@state.mn.us

In re: Hiawatha Transmission Line Project, PUC Docket: E002/TL-09-38  
Draft Environmental Impact Statement Comments

Dear Mr. Storm:

The following comments on the Draft Environmental Impact Statement (DEIS) for the Hiawatha 115 kV Project in South Minneapolis are submitted on behalf of the Midtown Greenway Coalition.

There are many places where the Midtown Greenway Coalition believes that the DEIS has done a thorough job of describing potential adverse impacts from the Hiawatha Project and strategies for their mitigation, particularly the placement of proposed 115 kV power line underground. The comments herein focus on errors, omissions and new issues that we believe should be included in the Final EIS. Where additional issues should be addressed in the EIS, we have attempted to identify the sections and pages of the DEIS to which the changes apply. In the section on electric and magnetic fields, we have proposed revisions with a more comprehensive underline and strike-out format.

Reference is made in these comments to the Direct Testimony of Tim Springer filed on February 18, 2010 ("Springer Direct") in the routing proceeding for this matter and attached Schedules. Additional reference material is provided in Attachments to these comments. The following issues are addressed in these comments:

- 82-1 | 1) **Socioeconomic Impacts** – the EIS should discuss potential impacts of an overhead power line route on economic development, housing development, neighborhood revitalization or deterioration;
- 82-2 | 2) **Underground Route Alignments** – the EIS should discuss alignment of Route D in the center of 28<sup>th</sup> Street to mitigate impacts on flora, aesthetics and magnetic field exposures and impacts pertaining to transit, land use and recreation of underground alignments for Route A on the Midtown Greenway.
- 82-3 | 3) **Substation Location and Impacts** – the EIS should evaluate the Zimmer-Davis site for the Hiawatha Substation based on Xcel Energy discovery responses. The EIS should also consider impacts of substation location on community green space specifically in terms of impacts on flora, aesthetics and recreation.

## Responses

### Comment 82-1

A discussion of the potential impacts of the Project on development and property values appears in Section 5.4.2.2 of the EIS.

### Comment 82-2

The feasibility of constructing Route D along a specific alignment cannot be determined until the location of all existing underground infrastructure is identified. The Applicant has stated that an alignment beneath the center of the street would likely not be feasible; however, the duct banks could be placed beneath the northern portion of E 28<sup>th</sup> Street to reduce potential impacts to trees, sidewalks, and other infrastructure. Text in Sections 1.4.4, 5.4.2.3, and 5.8.2.1 has been supplement to include information on potential alternative alignments of Route D.

### Comment 82-3

Text throughout the EIS has been modified and supplemented to evaluate the Zimmer Davis Substation site as a potential alternative location for the Hiawatha Substation.

## Commenter 82 – Midtown Greenway Coalition

Midtown Greenway Coalition Comments on DEIS  
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- 82-4 4) **Substation Mitigation** – the EIS should more completely develop the record on mitigation of aesthetic, noise and land use impacts of substations, including mitigation designs and undergrounding according to the Anaheim model;
- 82-5 5) **Cost Recovery** – the EIS should include in its analysis of cost spreading Xcel Energy's precedent of rate base cost allocation for underground 115 kV power lines as reflected in discovery responses and the information provided in the direct testimony of Larry Schedin.
- 82-6 6) **Electric and Magnetic Fields** – the EIS should reorganize and revise sections regarding electric and magnetic fields as proposed in detail in these comments. In addition, the EIS should provide updated information from discovery regarding the proximity of homes and dwellings to various routes and magnetic field exposures at these distances;
- 82-7 7) **Environmental Justice** – the EIS should include adverse socioeconomic impacts on economic and community development of overhead lines and the potential risks of adverse impacts from electric and magnetic fields among the disproportionate impacts to environmental justice communities in the Hiawatha Project area.

### DISCUSSION

#### 1) Socioeconomic Impacts

- 82-8 There is a brief discussion in the DEIS on pages 188-189 regarding the impacts of proximity to structures, perceptions of health and safety and federal financing constraints on property valuation. The EIS should include a more robust discussion of the adverse socioeconomic impacts of an overhead transmission line on economic development and development of housing in the area adjacent to the Hiawatha Project. Routing the Hiawatha Project overhead would reduce investment in commercial development and housing, creating serious adverse socioeconomic impacts on a neighborhood that is attempting to recover from blight and disinvestment and is socio-economically fragile. Mitigation of these socioeconomic impacts requires routing of the Project underground.

Specific information on the responses of developers to potential overhead routes for the transmission project are contained in the direct testimony of Tim Springer (*e-docket no. 20102-47188-09, pp. 17, 19*) and in Springer Direct, Schedule 10 (*e-docket no. 20102-47191-06*). Developer comments are based on concerns of potential tenants regarding health and safety risks, among other issues. Representative statements of developers include the following:

If high voltage power lines were to be located adjacent to these properties (or any other potential development sites) it would likely cause us to rethink trying to create \$60 million in new development on the sites, and have an adverse effect on the marketability of the existing developments. (*Springer Direct, Schedule 10, supra, p. 1*)

As a developer, we would be reluctant to redevelop property along the Midtown Greenway if there were aerial high voltage transmissions lines, as their presence would pose a significant risk of obtaining tenants or buyers of the end product, whether it is office space, apartments, condos, or otherwise. People have a real aversion to the aesthetics of high voltage wires as well as significant concerns about the long term health impacts of being located immediately adjacent the wires." (*Springer Direct, Schedule 10, supra, p. 2*)

## Responses

### Comment 82-4

Text in Section 3.4.1 has been supplemented to include information on the Anaheim Substation. A discussion on potential mitigation for impacts from the Project substations is included in the mitigation subsections in each of the Section 5.0 resource sections. A summary of potential mitigation measures appears in Table 6-3.

### Comment 82-5

Policy issues surrounding whether utilities, ratepayers, or local government should be liable for the cost to underground conductors were identified to be outside the scope of the EIS in the Scoping Decision, signed by the Director of OES on September 3, 2009. Undergrounding costs are provided in Section 1.8 the EIS for informational purposes.

### Comment 82-6

Thank you for your comment. It has been noted and included in the record for this EIS.

### Comment 82-7

A discussion of environmental justice appears in Section 5.5 of the EIS.

### Comment 82-8

The EIS discusses that an overhead HVTL project may impact the potential development opportunities negatively (see Section 5.2.2.2, 5.4.1.2, and 5.4.2.2 of the EIS), including aesthetics, financing, and perceived health and safety issues associated with HVTL. The degree and extent of the impact is unknown. There are many areas within the Twin Cities metro area that have residential and commercial development adjacent to HVTLs.

## Commenter 82 – Midtown Greenway Coalition

Midtown Greenway Coalition Comments on DEIS  
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- 82-9** | Additional analysis of socioeconomic impacts and mitigation by routing the high voltage power line underground should be reflected in the EIS in the overview (p. 10), in the discussion of impacts of overhead power lines on residential or other high density development (pp. 126-127), in Section 5.4 pertaining to Socioeconomics (pp. 176-179, 182-185, 187-195), and in discussions of environmental justice (pp. 230-231).
- 82-10** | In addition to reflecting the information on adverse impacts noted above, statements in the DEIS asserting that construction and maintenance would have no adverse impacts on the local economy (p. 184, paragraph 5, for example) should be deleted or modified to refer only to underground route alternatives.
- The Executive Summary (Table ES-1), Executive Summary Mitigation Measures (Table ES-2), Comparative Impacts of Alternatives (Table 6-1) and Summary of Potential Mitigation Measures (Table 6-3) should be modified as follows:
- 82-11** | ~~An increase decrease~~ to the local tax base could occur over time, resulting from diminished investments in commercial and housing development near overhead transmission lines, in an incremental increase in revenue from utility property taxes. (Table ES-1, Section 5.4 Socioeconomics, p. 20)
- 82-12** | Residents, local business owners, and customers in the Project Area ~~primarily~~ would be affected by temporary construction activities, ~~and~~ permanent aesthetic changes ~~and~~ marketability and investment with overhead transmission lines. (Table ES-1, Section 5.4 Socioeconomics, p. 20)
- 82-13** | Locate transmission lines and/or substations underground. (ES-2, Section 5.4 Socioeconomics, p. 28, Table 6-3, Section 5.4 Socioeconomics, p. 385)
- 82-14** | Socioeconomics: Decrease in commercial and housing investment along routes. Effects Adverse effect similar for overhead routes and Zero impact for underground routes. (Table 6-1, p. 379)
- 2) Underground Route Alignments**
- Route D (28<sup>th</sup> Street Underground)**
- 82-15** | The EIS should discuss alignment of Route D in the center of 28<sup>th</sup> Street to mitigate impacts on flora, aesthetics and magnetic field exposures. As documented in the direct testimony of Tim Springer, (*Springer Direct, supra, pp. 28-29; Xcel Resp. to MGC IR 17, Schedule 18, e-docket no. 20102-47191-05*) alignment of Route D in the center of 28<sup>th</sup> Street would avoid the loss of 43 trees, preserving flora and aesthetics and increasing the distance of homes from the underground power line.
- 82-16** | Also reflected in discovery responses (*Springer Direct, Schedule 18, supra*) if Route D were aligned on the sidewalk, the power line would be from 12 to 75 feet away from residences. If Route D were aligned in the center of the street, the distances would increase, so that the nearest homes would be from 20 to 115 feet away. Although magnetic fields drop off much more quickly with an underground as opposed to an overhead line, at a distance of 12 feet from an underground power line, average magnetic fields could still exceed 2 milligauss (mG) (*Springer Direct, supra, p. 29, Xcel Resp. to MGC IR 30, p. 21, Schedule 12, e-docket no. 20102-47191-01*) while at 20 feet away, magnetic fields would drop to background levels

## Responses

### Comment 82-9

A discussion of socioeconomic impacts appears in Section 5.4 of the EIS. Text in Section 5.4.2.2 has been modified and supplemented to include information on potential impacts to development and HUD financing.

### Comment 82-10

Text in Section 5.4.2.1 has been modified to indicate that adverse effects may occur with overhead lines and not with underground lines.

### Comment 82-11

Text in Table ES-1 has been modified to include the suggested language.

### Comment 82-12

Text in Table ES-1 has been modified to include the suggested language.

### Comment 82-13

Text in Tables 6.3 and ES-2 has been modified to include undergrounding the transmission lines and/or substations as a potential mitigation measure.

### Comment 82-14

Thank you for your comment. It has been noted and included in the record for this EIS.

### Comment 82-15

See response to Comment 82-2, which addresses the same concern.

### Comment 82-16

The number of residential dwellings located at specified distances to Route D under a center of the street alignment appears in Table 5.4-5.

## Commenter 82 – Midtown Greenway Coalition

Midtown Greenway Coalition Comments on DEIS  
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of exposure.

- 82-17** | The EIS should suggest that a center-of-the-street alignment of Route D would mitigate impacts on the flora of the urban forest, aesthetics of residential areas with a tree canopy and would take a precautionary approach regarding chronic magnetic field exposures to nearby residents. Sections of the EIS where this analysis of route alignments should be reflected include places where impacts on the urban forest, aesthetics and flora are discussed in connection with Route D, including but not limited to pp. 195-197 (impacts on urban forests) and various places where it is suggested that Route D would require extensive tree removal (pp. 274, 283, 295, 316).
- 82-18** | Mitigation Measures (Table ES-2), Comparative Impacts of Alternatives (Table 6-1) and Summary of Potential Mitigation Measures (Table 6-3) should be modified as follows
- For Route D, locate transmission lines under the roadway rather than under the sidewalk to eliminate loss of trees. (Table ES-2, Section 5.8 Aesthetics and Section 5.10 Flora, p. 29 and Table 6-1, Section 5.8 Aesthetics and Section 5.10 Flora, p. 386);
- Flora: Number of trees that would be removed along each route during construction.  
Route D (Underground) 43 (sidewalk alignment), 0 (street alignment). (Table 6-1, p. 379)
- Route A (Midtown Greenway Underground)**
- 82-19** | The DEIS suggests in Table ES-2, Section 5.16 at page 31 that an alignment of Route A under the existing bike path would avoid conflicts with expansion of transit along the Midtown Greenway.
- Direct testimony and schedules filed by Tim Springer suggest that the Route A3 alignment proposed by Xcel Energy in the northern section of the Greenway corridor would require location of the high voltage transmission line immediately beneath or adjacent to the trails, exposing trail users to elevated magnetic fields. (*Springer Direct, supra, pp. 20-22; Schedule 12, supra, pp. 7-12, 20-21; Schedule 8, e-docket no. 20102-47188-05, 20102-47188-04*). Placing a high voltage power line immediately beneath or adjacent to Midtown Greenway trails could undermine trail usage due to perceptions of risks to the health and safety of trail users. (*Springer Direct, supra, p. 22*).
- A route alignment beneath the Greenway trails could also conflict with future plans for transit and transit stations. Transit stations may require width beyond that provided in the trench and sections of the corridor would need to be reconfigured and trails relocated to accommodate transit facilities. (*Springer Direct, supra, pp. 22-24; Schedule 8, supra; Schedule 1, e-docket no. 20102-47188-03*).
- Direct testimony filed by Hennepin County confirms that the layout in the Greenway for transit, transit stations, cycling and walking trails and has not been determined -- a transmission line route under the trails may conflict with transit. Sections of the DEIS suggesting that impacts would be avoided should be modified to suggest that impacts on transit might be reduced.
- 82-20** | Places in the DEIS text (e.g. p. 372) suggesting that location of a Route A alignment beneath the trails could avoid impacts should be modified to reflect that such placement could reduce, but not avoid, impacts on future transit. Sections of the text referring to potential impacts of an underground Route A alignment on recreation (pp. 269-271) should reflect a

## Responses

### Comment 82-17

See response to Comment 82-2, which addresses the same concern.

### Comment 82-18

Text in Table 6-1, 6-3, and ES-2 has been modified to include information on an alternative alignment that could reduce the number of trees affected by Route D.

### Comment 82-19

Text in Sections 5.16.2.1, 6.1.1, 6.2, and the Executive Summary has been modified to include information on potential conflicts between the Project and future transit facilities.

### Comment 82-20

Text in Sections 5.7.2.1 and 5.16.3 has been modified to include information on the potential impacts of locating the Project within the Midtown Greenway.

## Commenter 82 – Midtown Greenway Coalition

Midtown Greenway Coalition Comments on DEIS  
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82-20 | potential indirect impact on trail usage due to perceptions of safety if high voltage power lines are placed on a north alignment directly beneath the trails.

82-21 | The Executive Summary Mitigation Measures (Table ES-2), Comparative Impacts of Alternatives (Table 6-1) and Summary of Potential Mitigation Measures (Table 6-3) should be modified as follows:

If the HVTL is ~~were~~ to be located underground within the Greenway/HCCRA, and an expanded route width is requested by the Applicant, the location of the line ~~could be placed~~ beneath the existing bike path ~~to~~ could reduce, but would not avoid conflicts with future plans for the expansion of the LRT and transit stations, ~~within the trench~~. (Table ES-2, Section 5.16 Transportation, p. 29 and Table 6-3, Section 5.16 Transportation, p. 388)

**Traffic and Transportation: Conflict with future transit and transit stations.** “Conflict with future transit” for Route A (Overhead) and Route A (Underground), “NA” for Routes B, C, D, E2. (Table 6-1, p. 382).

### 3) Substation Location and Impacts

82-22 | The EIS should evaluate the Zimmer-Davis site for the Hiawatha Substation based on Xcel Energy discovery responses. In response to Longfellow Community Council IR 1, (*Direct Testimony and Schedules of Eric Hart, Schedule 10 at pp. 38-39, e-docket no. 20102-47180-01*) Xcel stated the following:

Northern States Power Company, a Minnesota corporation (“Xcel Energy”), is not currently seeking approval for future expansion space for the Hiawatha Substation. However, the identified expansion site (“Zimmer - Davis site”), is a comparable site to the preferred Hiawatha West site and could be considered as an alternative Hiawatha Substation location.

Substation, distribution, and transmission planning engineers have also reevaluated the Zimmer Davis property and concluded that it is a feasible site for the Hiawatha Substation. Xcel Energy believes that the site should be considered as a primary site in this routing proceeding.

The EIS should evaluate the Zimmer-Davis site for the Hiawatha Substation considering the reduced impacts that this site might have on aesthetics, flora, and recreation, including the evidence that this site, unlike the proposed Hiawatha West site, would not require removal of plantings and green space created and valued by the community. (*Direct Testimony and Schedules of Eric Hart, e-docket no. 20102-47180-01*).

82-23 | Text explaining that the Hiawatha West site would not require business relocation (e.g., page 42) should reflect the adverse impacts of this substation alternative on green space valued in plans and priorities of neighborhood organizations and the Midtown Greenway Coalition and in the City of Minneapolis plan for the Greenway corridor. Descriptions of the Hiawatha West current land use (e.g. tables on page 86 and 383) should refer to the site as a “neighborhood green space” not a “vacant lot.” Land use planning, such as the development principles for the Greenway corridor referenced on pages 113 through 115 of the DEIS,

## Responses

### Comment 82-21

Text in Tables ES-2, 6-1, and 6-3 has been supplemented to include information on the potential conflict of Route A with future transit.

### Comment 82-22

Text in Sections 1.1, 1.5.1.3, and the Executive Summary has been modified and supplemented to include information on the location, use, and substation design for the Zimmer Davis Substation site. Resource subsections within Section 5.0 for affected environment, impacts, and mitigation have been supplemented to include a discussion of the Zimmer Davis Substation as applicable.

### Comment 82-23

Text in Section 1.5.1.1 has been modified to note the current use of the Hiawatha West Substation and potential impacts on trees planted at the site.

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- 82-23 | should be cited in describing the potential adverse impacts of selection of the Hiawatha West substation site and disrupting community green space adjacent to the Midtown Greenway.
- 82-24 | The number of trees and shrubs impacted by the proposed Hiawatha West substation site should also be updated to include information in the testimony of Eric Hart, "In April 2009 the area where Hiawatha substation is proposed was planted. Approximately 150 volunteers participated in this planting where 258 trees and shrubs were planted." (*Hart Direct supra*, p. 6) Existing references in the DEIS (e.g. pp. 281, 316) cite Applicant's statement that 5 trees would be affected. Discussion of substation impacts on recreation (p. 276) should refer to the loss of community green space if the Hiawatha West site is chosen.
- 82-25 | Consideration of the Zimmer-Davis site and impacts of the Hiawatha West substation location and removal of community green space on aesthetics, planned land use, flora and recreation should be reflected in the EIS in connection with substations, aesthetics, flora and recreation in the overview (pp. 5-6, 13) and throughout the EIS text, including but not limited to pages 41-45 (substation descriptions), pp. 70,75 (substation design), pp. 86, 88 (description), pp. 129-133 (land use), pp. 185-186 (socioeconomic impacts), pp. 229-230 (environmental justice impacts of reduced aesthetics and quality of life); pp. 296-299 (substation alternatives), p. 336 (air quality), pp. 369-370 (transportation)
- The Executive Summary (Table ES-1), Executive Summary Mitigation Measures (Table ES-2) and Summary of Potential Mitigation Measures (Table 6-3) should be modified as follows:
- 82-26 | Permanent loss of community green space would result from an above-ground substation on the Hiawatha West site. (Table ES-1, Section 5.2 Land Use, p. 19)
- ~~Five trees.~~ Approximately 258 trees and shrubs would be significantly affected/removed at the Hiawatha West Substation location. (Table ES-2, Section 5.10 Flora, p. 24)
- Select substation locations that require the minimum amount of land use change (i.e., demolition and/or relocation of existing buildings and current uses, including community green space. (Table ES-2, Section 5.2 Land Use, p. 28 and Table 6-3, Section 5.2 Land Use, p. 385)
- 4) Substation Mitigation
- 82-27 | The EIS should more completely develop the record on mitigation of aesthetic, noise and land use impacts of substations, including mitigation designs and undergrounding according to the Anaheim Park Substation model.
- 82-28 | The DEIS mentions sound-absorbing panels to reduce noise at substations (p. 16). The DEIS also contains a discussion of the impacts of transmission lines and substations on noise (pp. 338-346). However, for the most part, little credence is given to concerns about noise impacts that do not exceed decibel limits and no distinction is made between the impacts on a residential or business community of temporary construction noise and intermittent long-term noise from overhead transmission lines or potentially continuous noise from above-ground substations.
- 82-29 | Additional discussion is needed regarding substation noise, which can be disruptive to community members even where legal noise limits are not exceeded. An article pertaining to

## Responses

### Comment 82-24

See response to Comment 76-5, which address the same concern.

### Comment 82-25

See response to Comment 76-19, which addresses the same concern.

### Comment 82-26

See response to Comment 76-5, which address the same concern.

### Comment 82-27

See response to Comment 82-4, which addresses the same concern.

### Comment 82-38

A discussion of the potential impacts of the Project on noise appears in Section 5.14.2 of the EIS.

### Comment 82-29

A discussion of the potential impacts of the Project on noise appears in Section 5.14.2 of the EIS.

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substation noise from an Xcel substation in St. Paul (*Star Tribune Substation Noise Article, Attachment 1*) is provided as an example of this concern. Substation noise is a particularly troubling issue for the proposed Midtown Substation, which would be in the heart of a residential neighborhood as well as adjacent to the Midtown Greenway. More detailed discussion of the efficacy of different types and heights of noise wall enclosures should be provided in the EIS to address impacts in a densely populated area, particularly a residential community.

82-30

Further discussion is also needed regarding the adverse aesthetic impacts and incompatibility with surrounding land uses of a 12-foot prefab concrete wall substation enclosure (pages 42, 45) from which substation facilities would protrude (see Figures 5.8-14 through 5.8-21). The plan for barbed wire fencing to provide security on substations (pages 73-74) should also be discussed as both aesthetically incompatible with either adjacent residential, commercial or Greenway uses and likely to conflict with crime prevention through environmental design (CPTED) principles.

82-31

The EIS should explicitly discuss the potential for architectural and artist involvement in the process of substation design, the use of landscaping and public art and the use of architecturally designed walls and appropriate residential style fencing. For the Midtown Substation, the EIS should evaluate a substation mitigation design similar to that used in the Con Edison substation in an urban area in Bronx, New York. (*Con Ed Substation Mitigation Design, Attachment 2*).

82-32

The EIS briefly discusses the potential for placing a substation underground and references a study commissioned by Xcel Energy that evaluated an underground substation (pages 79-80). Discussion of an underground substation should be updated and significantly more information provided, particularly regarding the underground substation model developed in Anaheim for the Park Substation in 2007. This substation design was built on a level slightly below grade and covered with earth and plantings; the cost of this substation was \$19.5 million (*Xcel Resp. to MGC IR 27, Attachment 3*), considerably less than the \$86 million estimated by the Sargent and Lundy consultants hired by Xcel in this proceeding to study an underground substation alternative.

82-33

Unlike the study commissioned by Xcel, the experience of Anaheim Public Utilities suggests that that construction of a subterranean gas-insulated facility can be feasible and practical, using only 30 percent of the land of a conventional substation and making the station "quiet and virtually invisible to the public." (*Anaheim's Park Substation, Transmission & Distribution World, April 2007, p. 3, Attachment 4*).<sup>1</sup> The report in *Transmission & Distribution World* suggests that the compactness of a gas insulated switchgear substation, the speed of construction, the reduced inspection and maintenance requirements, reduced noise and aesthetic improvements are substantial advantages of the project. "When all these advantages are taken into consideration, a gas-insulated substation is a cost-effective alternative to a conventional substation in an urban community." (*Anaheim's Park Substation, Attachment 4, supra, p. 5*).

82-34

DEIS text referring to substation facilities should incorporate a discussion of ways in which compatible design and undergrounding could mitigate impacts on residential and commercial neighbors and the Midtown Greenway. Textual references to substations include p. 42 (elements of Hiawatha Substation), p. 45 (elements of Midtown Substation), pp. 73-75

<sup>1</sup> Attachment 4 contains no heading due to document password protection.

## Responses

### Comment 82-30

A discussion of the mitigation of substation noise appears in Section 5.14.3.3 of the EIS.

### Comment 82-31

A discussion of the aesthetic impact and compatibility with surrounding land use of the substation walls appears in Section 5.8.2.2 of the EIS.

### Comment 82-32

Text in Sections 5.8.2.2 and 5.8.3 has been modified and supplemented to include information on the Con Edison substation and architectural wall design options.

### Comment 82-33

Text in Section 3.4.1 has been modified and supplemented to include information on the design of the Park Substation in Anaheim, California. The proposed underground Hiawatha West substation would be designed as a gas-insulated substation.

### Comment 82-34

Text in Sections 5.8.2.2 and 5.8.3 has been modified and supplemented to include information on the Con Edison substation and architectural wall design options.

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(general substation design), pp. 79-80 (underground substations), pp. 129 -133 (substation impacts on land use and alternatives, including undergrounding), pp. 185-186 (socioeconomic impacts of substations), pp. 276-278 (recreation impacts of substations), pp. 296-302 (discussion of substation alternatives), pp. 303-304 (discussion of underground substations)

The Executive Summary Mitigation Measures (Table ES-2 and Summary of Potential Mitigation Measures (Table 6-3) should be modified as follows:

82-35

At a minimum, substations could be constructed with an architecturally designed walls, landscaping and fencing compatible with surrounding land uses on three to four sides of the substation to complement the surrounding structures and to mitigate other potential impacts such as noise, or substations could be constructed underground to avoid land use conflicts and other adverse impacts. (Table ES-2, Section 5.2 Land Use, Zoning, and Planning, p. 28 and Table 6-3, Section 5.2 Land Use, Zoning, and Planning, p. 385)

The substations will be constructed with architecturally designed perimeter walls and fencing compatible with adjacent uses and the surrounding area will be landscaped, or the substations will be constructed underground. (Table ES-2, Section 5.8 Aesthetics, p. 29 and Table 6-3, Section 5.8 Aesthetics, p. 386)

### 5) Cost Recovery

82-36

The EIS should include in its discussion of cost recovery a summary of prior practice where no "incremental cost" surcharge has been requested for underground 115 kV power lines, and the information provided in pre-filed direct testimony of Larry Schedin. Costs should be spread over the entire Minnesota Company rate base consistent with Xcel's prior practice and consistent with evidence that an underground facility is a standard facility in the densely-populated area of the Hiawatha Project.

Discovery demonstrates that Xcel's history with underground transmission lines in Minnesota, including in other Minneapolis neighborhoods, does not support charging the local community for "incremental costs" of underground 115 kV transmission. In response to Midtown Greenway Coalition IR 26, Xcel identified a total of 13 underground 115 kV projects representing 9.84 miles of transmission from the 1960's through the 2000's. (*Springer Direct, Schedule 19, pp. 3-4, e-docket no. 20102-47191-04*). To the best of Xcel's knowledge "none of the underground facilities identified in the above chart involved any incremental cost analysis." Further, "It is Xcel Energy's understanding that none of the 13 underground segments was paid for through the CRFS [City Requested Facilities Surcharge] mechanism which has only been used for distribution facilities." For many of the underground routes, Xcel stated that the factor that determined that the transmission line would not be subject to a local surcharge was that there was "no viable overhead route." (*Schedule 19, supra, p. 5*).

82-37

From the perspective of the Midtown Greenway Coalition, local developers, community organizations and local governments, there is no viable overhead route for the Hiawatha project; costs for underground Route D should be spread over the rate base, as has been done with prior similar projects. (*see Springer Direct, supra, pp. 31-32*).

Direct testimony of engineer Larry Schedin, who previously worked for Xcel Energy for 18 years, concluded that none of the overhead routes proposed for the Hiawatha Project were feasible. (*Schedin Direct, pp. 8-9, e-docket no. 20102-47240-01*). Mr. Schedin explained that underground construction of the Hiawatha Project should be considered to be a standard

## Responses

### Comment 82-35

A discussion of substation wall design as a potential mitigation for aesthetics and noise appears in Sections 5.8.3 and 5.14.3 of the EIS. Text in Sections 1.5.1, 5.6.3.8, 5.8.2.2, 5.14.2.2, and the Executive Summary has been modified to reflect information on the Applicant's revised substation wall and gate design.

### Comment 82-36

See response to Comment 82-5, which addresses the same concern.

### Comment 82-37

Thank you for your comment. It has been noted and included in the record for this EIS.

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facility, and costs should be recovered accordingly:

It is my testimony that the 115 KV lines should be placed underground on the basis of superior reliability and reduced environmental impact compared to a double circuit 115 KV line. . . . My testimony further concludes that underground construction should be considered as standard for the densely populated neighborhoods between the new Hiawatha and Midtown substations. Underground construction provides the benefit of two independent sources to the new Midtown Substation on a single right-of-way which double circuit construction on a single right-of-way does not. Because underground construction should be considered standard construction, neither Xcel ratepayers in the City of Minneapolis nor Xcel ratepayers in Hennepin County should pay a special assessment for the added cost of undergrounding. Instead, the total cost of the four elements should be charged as network service improvements uniformly to all the ratepayers in Xcel's Minnesota Company (MN, ND, MI and SD) including transmission allocations to Xcel customers in its Wisconsin Company. (*Schedin Direct, supra, p. 5, l. 41 – p. 6, l. 18*).

82-38 Information pertaining to Xcel's prior practice regarding underground lines and the appropriateness of standard facility treatment, should be inserted in pages 52 -60, where cost recovery formulas are detailed and on pages 230 and 232 where environmental justice impacts of a surcharge are discussed.

### 6) Electric and Magnetic Fields

82-39 The sections on electric and magnetic fields are divided in ways that are confusing, and contain areas of omission and inaccuracy. These comments suggest changes and additions. It is suggested that the primary text sections [pages 237-256] be reorganized so that all matters pertaining to electric fields are described first, then all issues pertaining to magnetic fields. References to safety and health in the overview and the Executive Summary should reflect the potential that electric and magnetic fields may create adverse impacts on safety and health, which impacts would be significantly mitigated by placing the high voltage power lines underground.

82-40

82-41 Estimates of the anticipated strength of the EMF generated from the transmission lines and modeled exposures to the public are within some established acceptable guidelines for all transmission line alternatives, but disagreement and concerns remain about increased risks of childhood leukemia and other negative health impacts from magnetic fields. (p. 11)

Construct the transmission line underground and locate the lines as far as possible from adjacent dwellings to further reduce levels of EMF and to avoid impacts to structures from severe weather. (ES-2, Section 5.6 Safety and Health, p. 29).

### Electric Fields [pages 237, 241-251]

82-42 Discussion of Electric Fields (pages 237, 241-251) should be reorganized and consolidated with the following subject headings:

Overview (page 237)  
Implantable Medical Devices (pages 241 and 250)  
Stray Voltage (pages 241 and 250-251)  
Induced Currents and Shock Hazards (pages 242 and 252)  
Electric Fields Strength (pages 254, 255 and 256)

## Responses

### Comment 82-38

Thank you for your comment. It has been noted and included in the record for this EIS.

### Comment 82-39

Thank you for your comment. It has been noted and included in the record for this EIS.

### Comment 82-40

Thank you for your comment. It has been noted and included in the record for this EIS.

### Comment 82-41

A discussion on EMF appears in Sections 5.6.1.2 and 5.6.2.2 of the EIS.

### Comment 82-42

Thank you for your comment. It has been noted and included in the record for this EIS.

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82-43

The following information should be added to the overview section on electric fields (page 237): Electric fields are shielded by the earth and by the conduit duct banks for underground power lines. (Direct Testimony of Benjamin Gallay, p. 3, e-docket no.20102-47199-01). Several international organizations have set electric field strength limitations at 4.2 kV/m. (Draft EIS, Brookings County – Hampton Transmission Project, PUC Docket 08-1474, p. 6-5, e-docket no. 200910-43110-09).

### Implantable Medical Devices

82-44

The EIS should distinguish between unipolar and bipolar pacemakers and state the electric field strength at which either type of pacemaker can be disrupted. The EIS should also clearly state (page 250) that implantable devices are affected by *electric* fields, rather than using the term "EMF." The *Project Alternatives* section (page 250) is erroneous and should be modified:

~~All overhead route alternatives and substation locations have equal potential for EMI with implantable medical devices, although predicted electric fields are lower than manufacturer guidelines to prevent electromagnetic interference. Underground route alternatives eliminate electric field exposures and any associated risks. Although underground construction options have the strongest measured electric field strength, 4.6 kV/m within 1 meter of the transmission line. This measurement, although below the common manufacturer guideline of 6 kV/m, is over four times higher than all other route alternatives.~~

### 5.6.1.4. Stray Voltage

The EIS should include the first two paragraphs on page 241 and the balance of the text on pages 250-251. Effects of stray voltage should be described and the relationship between overhead routes and distribution lines should be explained:

82-45

- The EIS should explain that stray voltage may result in continuous electric shocks to persons or animals near distribution facilities that are located parallel to and beneath transmission lines.

82-46

- The EIS should identify where, along the proposed overhead routes, distribution lines would be parallel to the proposed Hiawatha Project power lines, affecting alignment choices or creating risks of stray voltage.

The *Project Alternatives* sentence on page 251 should be revised as follows.

82-47

~~Alignments for overhead Project alternatives will be constrained to avoid stray voltage in areas where distribution lines are parallel to the proposed overhead routes. No health and safety effects from stray voltage would result from or constrain alignments for underground Project alternatives, are expected from the Project.~~

### 5.6.1.5. Induced Currents and Shock Hazards

82-48

The EIS should specifically discuss the potential for induced current specific to the Hiawatha Project:

82-49

- The EIS should explain that a variety of objects under the proposed overhead

## Responses

### Comment 82-43

Text in Section 5.6.2.2 has been modified with the correct electric field strength for the underground transmission line alternatives. Text in Section 5.6.1.2 has been modified and supplemented to include information on EMF standards set by states, countries, and international organizations.

### Comment 82-44

Thank you for your comment. It has been noted and included in the record for this EIS.

### Comment 82-45

A discussion of stray voltage appears in Sections 5.6.1.4 and 5.6.2.4 of the EIS.

### Comment 82-46

A discussion of stray voltage appears in Sections 5.6.1.4 and 5.6.2.4 of the EIS.

### Comment 82-47

Thank you for your comment. It has been noted and included in the record for this EIS.

### Comment 82-48

A discussion of induced currents and shock hazards appears in Sections 5.6.1.5 and 5.6.2.5 of the EIS.

### Comment 82-49

A discussion of induced currents and shock hazards appears in Sections 5.6.1.5 and 5.6.2.5 of the EIS.

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- 82-49 Hiawatha Project transmission line could induce current including chain link fences, enclosures for trees or plantings, cars parked beneath power lines, bicycles riding under power lines, metal wagons, tricycles, snow blowers or other equipment used beneath overhead power lines.
- 82-50
- The EIS should explain the difficulty of preventing induced current in a densely populated urban environment where vehicles and structures are likely to be beneath power lines and many persons of all ages are likely to be exposed.
- Electric Field Strength
- 82-51 Table 5.6-3 on page 246 should be revised to indicate that electric fields from underground alternatives are zero. (*Galley Direct, supra, p. 3*). Text on page 247 should both reflect this change and delete language failing to distinguish between electric and magnetic fields as follows:
- Project Alternatives  
The maximum electric field strength for the aboveground route alternatives, measured at the centerline of the structure and at 1 meter above ground, ranges from approximately 0.56 kV/m for Routes A and E2 to approximately 1.12 kV/m for Routes B and C. ~~The maximum electric field strength for the Electric Fields from underground alternatives (Routes A and D) are shielded by the duct banks for underground cable and are effectively 0 kV at the centerline and at all distances from the underground alternative. (Xcel Energy, 2010) is approximately 4.6 kV/m, measured directly above the center of the transmission line at one meter above the surface of the ground (Xcel Energy, 2009).~~
- ~~Underground transmission lines generally produce weaker EMFs than overhead transmission lines. This is due to the electric fields ability to be shielded or weakened by most materials, including the earth. However, the distance between an overhead power line and a human is typically greater than the distance between an underground power line and a human. Therefore, although the underground line alternatives would be expected to exhibit a much weaker electric field due to its ability to be shielded and weakened by the earth, the distance from the source must also be evaluated. The electric fields associated with all of the overhead routes are significantly less than the maximum limit of 8 kV/m, which would be a permit condition imposed by the Commission.~~
- 82-52 Text on pages 255 to 256 pertaining to electric fields (Sections 5.6.3.2, 5.6.3.3, 5.6.3.4, and 5.6.3.5) should be deleted from the EIS. This text is in some places duplicative of prior discussions and in other places mischaracterizes potential adverse impacts of the Project.
- 82-53
- MAGNETIC FIELDS
- As with the DEIS discussion on electric fields, the various sections on Magnetic Fields (pages 237-241, 244, 247-250) should be reorganized and several changes made. The discussion on page 255 labeled as Section 5.6.3.2 should be eliminated. A distinction should be made between health studies and committee reports, and some of the language in earlier reports is out-of-date. It is suggested that the discussion of Magnetic Fields be organized as follows. Text is provided with underline and strike out with pages from current text in [brackets]:
- Magnetic Fields Overview  
Health Studies

## Responses

### Comment 82-50

A discussion of induced currents and shock hazards appears in Sections 5.6.1.5 and 5.6.2.5 of the EIS.

### Comment 82-51

Text in Section 5.6.2.2 has been modified with the correct electric field strength for the underground transmission line alternatives.

### Comment 82-52

Thank you for your comment. It has been noted and included in the record for this EIS.

### Comment 82-53

Thank you for your comment. It has been noted and included in the record for this EIS.

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82-53

Committees and Agencies  
Continued Research  
Policy Guidelines  
Calculated Magnetic Fields for the Proposed Project  
Project Alternatives

### Magnetic Fields Overview

Magnetic fields are created by and are solely dependent upon the electrical current in a conductor. Magnetic field strength is measured in milliGauss (mG). Similar to electric fields, the strength of a magnetic field decreases rapidly as the distance from the source increases. However, unlike electric fields, magnetic fields are not easily shielded or weakened by objects or materials. [p. 238]

### Health Studies

A common concern related to EMFs is the potential of adverse health effects exposure to EMFs may have on children, elderly, and pregnant women. The suggestion that these demographics are more susceptible to adverse health effects from EMF exposure is consistent with a large body of information showing that these demographics are more vulnerable than average adults to other exposures, such as to chemicals, diseases, and ionizing radiation. [p. 238]

82-54

A meta-analysis study takes all of the literature on a particular subject, evaluates the relative strengths and weaknesses of each study and then draws a conclusion that is consistent with the overall results of all of the studies. There have been three meta-analyses of all of the studies on the relationship between power line magnetic fields and childhood leukemia, and all three concluded that there was a statistically significant elevation in childhood leukemia in relation to magnetic field exposure. (Ahlbom et al., 2000; Greenland et al. 2000).<sup>3</sup> The Ahlbom pooled analysis found an elevated, but not statistically significant risk of childhood leukemia at fields of 2 milligauss and a statistically significant elevated risk at 4 milligauss.

Some studies find that occupational and residential exposure to magnetic fields is associated with cancer in adults, particularly brain cancer. There are recent studies showing that lifetime exposure to magnetic fields in excess of 2 mG is associated with an increased risk of neurodegenerative diseases in adults, including Alzheimer's disease and amyotrophic lateral sclerosis (ALS).<sup>4</sup>

The fetus and young children are at greater risk of cancer from power line exposure than are adults, and early life exposure may result in cancer many years later. Studies show an increased risk of cancer in adults who lived within 300 meters of a high voltage line during childhood and that maternal exposure during pregnancy increases the risk that children would develop leukemia.<sup>4</sup>

### Committees and Agencies

Numerous panels of experts have convened to review research data relevant to whether or not EMFs are associated with adverse health effects. These studies have been conducted by the National Institute of Environmental Health Sciences (NIEHS), the USEPA, the World Health Organization (WHO), and the Minnesota State Interagency Working Group

<sup>2</sup>Attachments 5 and 6 to these comments.

<sup>3</sup>Carpeater Direct, pp. 4, 13, in Springer Direct, Schedule 11, e-docket no. 20102-47191-06.

<sup>4</sup>Carpeater Direct, *supra*, p. 9.

## Responses

### Comment 82-54

Text in Section 5.6.1.2 has been modified and supplemented to include a discussion of Dr. Carpenter's research on the relationship between EMF and diseases.

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(MSIWG) on EMF Issues. [p. 238]

In 1992, the U.S. Congress authorized the Electric and Magnetic Fields Research and Public Information Dissemination Program (EMF-RAPID Program) in the Energy Policy Act. The Congress instructed NIEHS, National Institutes of Health, and the U.S. Department of Energy (DOE) to direct and manage a program of research and analysis aimed at providing scientific evidence to clarify the potential for health risks from exposure to ELF-EMFs (NIEHS, 1999). The EMF-Rapid Program, which was conducted in partnership with and funded by the utility industry,<sup>3</sup> provided the following conclusions to Congress on May 4, 1999:

82-55

82-56

82-57

82-58

- The scientific evidence suggesting that ELF-EMF exposures pose any health risk is weak, but consistent.
- Epidemiological studies have serious limitations in their ability to demonstrate a cause and effect relationship whereas laboratory studies, by design, can clearly show that cause and effect are possible. Virtually all of the laboratory evidence in animals and humans and most of the mechanistic work done in cells fail to support a causal relationship between exposure to ELF-EMF at environmental levels and changes in biological function or disease status. The lack of consistent positive findings in animal or mechanistic studies weakens the belief that this association is actually due to ELF-EMFs, but it cannot completely discount the epidemiological findings.
- The NIEHS concluded that ELF-EMF exposure cannot be recognized as entirely safe because of weak scientific evidence that exposure may pose a leukemia hazard. In our opinion, this finding is the findings were insufficient to warrant aggressive regulatory concern, but recommended However, because virtually everyone in the United States uses electricity and therefore is routinely exposed to ELF-EMF, passive regulatory action is warranted such as a continued emphasis on educating both the public and the regulated community on means aimed at reducing exposures.
- The NIEHS does not believe that other cancers or non-cancer health outcomes provide sufficient evidence of a risk to currently warrant concern (NIEHS, 1999). [pp. 238-239]

Currently, the USEPA states the following viewpoint of the associated health effects of EMFs on its website (USEPA: Electric and Magnetic Fields (EMF) Radiation from Power Lines, 2009):

Much of the research about power lines and potential health effects is inconclusive. Despite more than two decades of research to determine whether elevated EMF exposure, principally due to magnetic fields, is related to an increased risk of childhood leukemia, there is still no definitive answer. The general scientific consensus is that, thus far, the evidence available is weak and is not sufficient to establish a definitive cause-effect relationship (USEPA: Electric and Magnetic Fields (EMF) Radiation from Power Lines, 2009). [p. 239]

Currently, the WHO states the following viewpoint of the associate health effects of EMFs on its website (WHO, 2009):

82-59

“Much of the scientific research examining long-term risks from ELF magnetic field exposure has focused on childhood leukaemia. In 2002, IARC published a monograph

<sup>3</sup> NIEHS, 1999, pp. ii, 2.

## Responses

### Comment 82-55

Thank you for your comment. It has been noted and included in the record for this EIS.

### Comment 82-56

Thank you for your comment. It has been noted and included in the record for this EIS.

### Comment 82-57

Thank you for your comment. It has been noted and included in the record for this EIS.

### Comment 82-58

Thank you for your comment. It has been noted and included in the record for this EIS.

### Comment 82-59

Thank you for your comment. It has been noted and included in the record for this EIS.

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82-59

classifying ELF magnetic fields as “possibly carcinogenic to humans”. This classification is used to denote an agent for which there is limited evidence of carcinogenicity in humans and less than sufficient evidence for carcinogenicity in experimental animals. . . This classification was based on pooled analyses of epidemiological studies demonstrating a consistent pattern of a two-fold increase in childhood leukaemia associated with average exposure to residential power-frequency magnetic field above 0.3 to 0.4  $\mu$ T. The Task Group concluded that additional studies since then do not alter the status of this classification.”

Extensive research has been conducted into possible health effects of exposure to many parts of the frequency spectrum. All reviews conducted so far have indicated that exposures below the limits recommended in the ICNIRP (1998) EMF guidelines, covering the full frequency range from 0-300 GHz, do not produce any known adverse health effect. However, there are gaps in knowledge still needing to be filled before better health risk assessments can be made (WHO, 2009, <http://www.who.int/mediacentre/factsheets/fs322/en/index.html>). [p. 239]

82-60

The WHO 2007 Report on electromagnetic fields stated that the epidemiological literature has consistently found elevated risk of childhood leukaemia at ELF magnetic field exposure levels above 0.3  $\mu$ T [0.3 micro Tesla, or 3 milligauss] for the arithmetic mean and above 0.4  $\mu$ T [0.4 micro Tesla or 4 milligauss] for the geometric mean.<sup>6</sup> The Report dismissed the likelihood that chance, potentially confounding factors or difficulties with exposure assessment might explain the “consistently observed association between average magnetic field exposure above 0.3–0.4  $\mu$ T and childhood leukaemia.” The report suggested that difficulties with exposure assessment may in fact lead to an underestimation of the magnitude of risk and noted, “There is also increasing evidence that ELF magnetic fields may interact with DNA-damaging agents.”<sup>7</sup>

### Continued Research

It is important to note that although expert panels and agencies, such as the ones discussed above, have not yet identified any viable cause and effect relationships between exposure to EMFs and adverse health effects, hypotheses have existed and continue to be researched. Some health studies in discussion include, but are not limited to, the Melatonin and Henshaw Effect hypotheses formed by Professor Denis Henshaw. [p. 240]

The Melatonin hypothesis associates exposure to elevated magnetic fields to a decrease in the natural production of melatonin in the human body, a known natural anti-cancer agent produced by the pineal gland. The Henshaw Effect hypothesis postulates that transmission lines increase the amount of air pollution the human body retains when it is inhaled, thus creating a greater likelihood of developing cancer and/or other adverse health effects. This study examines high voltages, carried by transmission line cables, which have the ability to break up the air and separate electrons from individual air molecules (known as ionization). Ionization results in the creation of electrically charged particles, referred to as “corona ions.” The hypothesis states that the corona ions may be carried away from the immediate surrounding area by wind. The corona ions are considered to have a sticking ability to cling on to surfaces, similar to a dust particle, and are considered to stick to common air pollutants, such as vehicle exhaust pollution (air pollution associated with the

<sup>6</sup> WHO Report (2007), p. 374, Attachment 7 to these comments.

<sup>7</sup> WHO Report (2007), *supra*, p. 355, p.10.

## Responses

### Comment 82-60

Thank you for your comment. It has been noted and included in the record for this EIS.

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Project is further discussed in Section 5.13, Air Quality and Climate). The theory further postulates that due to the stickiness of the corona ions, the particles also have a greater chance of becoming trapped in the human lung upon inhalation. The theory postulates that corona ions created by high voltages carried by transmission lines stick to air pollution particles and have a greater likelihood of sticking to the inside of the human lung upon inhalation, thus creating a greater chance of developing adverse health effects including cancer. [pp. 240-241]

82-61 | Substantial recent research has demonstrated that magnetic fields at the extremely low frequencies ("ELF") of 50 Hz or 60 Hz, which are generated by power lines in Europe and the United States, respectively, do alter cell physiology and function and result in a statistically significant increase in genetic damage to cells.<sup>8</sup>

82-62 | A recent study has demonstrated a genetic-environmental interaction, where children having a specific gene who live near a power line had a 400 percent increase in risk of leukemia as compared to children with the same exposure who did not have this gene.<sup>9</sup>

82-63 | Policy Guidelines  
There are no federal or Minnesota State regulations for the permitted strength of a magnetic field on a transmission line, ~~however, both Florida and New York~~ Several states have standards ranging from 150-85 to 250 mG, [p. 238] but these are status quo standards derived from measuring the highest magnetic fields at existing right-of-way rather than from scientific analysis and may not be protective of public health.

82-64 | International bodies have set health-based standards for acute exposure, but have not set limits for chronic long-term exposure to magnetic fields. (WHO Report, 2007, p. 10) Some communities have adopted chronic exposure standards in the range of 2 mG to 10 mG. Several regions in Italy limit magnetic field exposures to 2 mG near homes, schools, nurseries and hospitals; the Netherlands and an environmental court in Australia apply a 4 mG limit and Switzerland sets a maximum of 10 mG, based on the rated current of a power line (not predicted amps), near homes, schools and other sensitive uses.<sup>10</sup> Other communities apply precautionary measures, even where they haven't set specific exposure limits.<sup>11</sup>

In September of 2002, the MSIWG on EMF Issues, published "A White Paper on Electric and Magnetic Field (EMF) Policy and Mitigation Options," referred to as the "White Paper." The MSIWG was formed to examine the potential health impacts of EMFs and to provide useful, science-based information to policy makers in Minnesota. Work Group members included representatives from the Department of Commerce, the Department of Health, the Pollution Control Agency, the Public Utilities Commission, and the Environmental Quality Board (MSIWG, 2002). The White Paper concluded the following findings:

<sup>8</sup> Carpenter Direct, *supra*, p. 16.

<sup>9</sup> Carpenter Direct, *supra*, p. 15.

<sup>10</sup> The chart in Attachment 8 summarizes these exposure guidelines, based on the WHO Report (2007), *supra*, pp. 364-365 and Supp. Resp. to CapX IR 1 and Resp. to CapX IR 3 in the Brookings CapX2020 Case, provided in Attachment 9 to these comments.

<sup>11</sup> The chart in Attachment 10 summarizes these precautionary policies, based on the WHO Report (2007), *supra*, p. 364 and Supp. Resp. to CapX IR 1 and Resp. to CapX IR 3 in the Brookings CapX2020 Case, *supra*.

## Responses

### Comment 82-61

Thank you for your comment. It has been noted and included in the record for this EIS.

### Comment 82-62

Thank you for your comment. It has been noted and included in the record for this EIS.

### Comment 82-63

Thank you for your comment. It has been noted and included in the record for this EIS.

### Comment 82-64

Text in Section 5.6.1.2 has been modified and supplemented to include information on EMF standards set by states, countries, and international organizations.

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82-65

~~Some epidemiological results do show a weak but consistent association between childhood leukemia and increasing exposure to EMF (see the conclusion of IARC and NIEHS). However, epidemiological studies alone are considered insufficient for concluding that a cause and effect relationship exists, and the association must be supported by data from laboratory studies. Existing laboratory studies have not substantiated this relationship (see NTP, 1999; Takebe et al., 2001), nor have scientists been able to understand the biological mechanism of how EMF could cause adverse effects. In addition, epidemiological studies of various other diseases, in both children and adults, have failed to show any consistent pattern of harm from EMF.~~

• The Minnesota Department of Health concludes that the current body of evidence is insufficient to establish a cause and effect relationship between EMF and adverse health effects. However, as with many other environmental health issues, the possibility of a health risk from EMF cannot be dismissed. Construction of new generation and transmission facilities to meet increasing electrical needs in the State is likely to increase exposure to EMF and public concern regarding potential adverse health effects.

• Based upon its review, the Work Group believes the most appropriate public health policy is to take a prudent avoidance approach to regulating EMF. Based upon this approach, policy recommendations of the Work Group include:

- o Apply low-cost EMF mitigation options in electric infrastructure construction projects;
- o Encourage conservation;
- o Encourage distributed generation;
- o Continue to monitor EMF research;
- o Encourage utilities to work with customers on household EMF issues; and
- o Provide public education on EMF issues (MSIWG, 2002). [pp. 239-240]

82-66

As noted above, research has not been able to establish a cause and effect relationship between exposure to EMFs and adverse health effects. However, a consistent and statistically significant pattern of increased health risks has been demonstrated and a general consensus has been formed to continue research on the health effects of EMFs. [p. 240]

### Calculated Magnetic Fields for the Proposed Project

82-67

The EIS should supplement Table 5.6-4 on page 246 with the information in Xcel Resp. to MCG IR 30. (*Springer Direct, Schedule 12, p. 21, supra*). Text for Section 5.6.2.2 on pages 244-245 should be deleted. Text on page 249 pertaining to magnetic field strength should be modified as follows:

The maximum peak magnetic field strength for the aboveground route alternatives, measured at the centerline of the structure and at 1 meter above ground, ranges from approximately 26.16 mG for Routes B and C to approximately 38.44 mG for Routes A and E2. The maximum strength for the underground alternatives (Routes A and D) ranges from approximately ~~13.08~~ 19.67 mG for the 3,000 kcmil conductor option to ~~19.67~~ 6.34 mG for the 1250 kcmil conductor option, measured directly above the center of the

## Responses

### Comment 82-65

Thank you for your comment. It has been noted and included in the record for this EIS.

### Comment 82-66

Thank you for your comment. It has been noted and included in the record for this EIS.

### Comment 82-67

Text in Section 5.6.2.2 has been edited with the correct magnetic field strengths.

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transmission line at one meter above the surface of the ground (Xcel Energy, 2010).<sup>12</sup> Magnetic fields for underground route alternatives diminish more rapidly with distance than for overhead routes. Within 15 feet, even peak magnetic fields from an underground route drop below 2 mG, while magnetic fields from an overhead route may remain above 2 mG at peak for 80 or even 100 feet. All proposed overhead routes contain many homes and apartment dwellings within 25 feet and 50 feet of the proposed route centerline. (Xcel 2010).<sup>13</sup>

82-68

References to household appliances on page 249 should be deleted for the following reasons: 1) The comparisons are misleading – duration of exposure is brief, unlike power line magnetic field exposures where the duration is continuous for hours, days and years; 2) The magnetic field levels are misleading – proximity to a microwave, for example, is rarely if ever at 12 inches, and fields fall off markedly; 3) Exposures to appliances are voluntary, unlike changing residence, and 4) Exposure to risks from other sources would not justify increasing the risks from new high voltage power line construction. In the alternative a detailed explanation of the above qualifications should be included in the text.

~~According to the USEPA, all calculated Project magnetic fields strengths are significantly weaker than the typical strength associated with many household appliances. Some common sources associated with higher magnetic field strengths are displayed in the table below Table 5.6.5–Magnetic Field Measurements of Household Appliances. [p. 249]~~

*Project Alternatives [p. 249]*

~~In general, the underground construction route alternatives (Routes A and D) would decrease the risk associated with EMF exposure concerns since EMF magnetic field strength is has been measured to be weaker for underground lines than for than aboveground transmission lines and magnetic fields drop off more rapidly as a function of distance. The exception to this generalization is the electric field strength measured at the center point and 1 meter above ground, in which underground Routes A and E2 have electric field strengths that are greater than the aboveground route alternatives. However, with an increase in distance from the centerline when measuring the electric field strength (first measured at 25 feet from centerline), the underground construction alternatives have a significantly weaker overall EMF strength. Research has not identified a viable cause and effect relationship between EMFs and adverse health effects, and EMFs associated with the Project are less than the electric field standard imposed by the state and typical magnetic fields associated with many household objects. As such, all Although no route alternatives and substation locations are not expected to have an direct or indirect affect on health and safety, potential risks from overhead alternatives are greater than for underground routes due to the number of dwellings in proximity to power lines.~~

82-69

The Executive Summary (Table ES-1), Executive Summary Mitigation Measures (Table ES-2), Comparative Impacts of Alternatives (Table 6-1) and Summary of Potential Mitigation Measures (Table 6-3) should be modified as follows

The maximum electric field strength for the underground alternatives (Routes A and D) is approximately 4-6  $\mu$  kV/m ~~due to shielding from underground duct banks.~~ (Table ES-1,

<sup>12</sup> The information on magnetic fields was provided in Table 3 of Xcel's Resp. to MGC IR 30, contained in Springer Direct, Schedule 12, *supra*, p. 21. Xcel Energy has confirmed (March 10, 2010 email provided under separate cover) that the information in response to IR 30 is correct and updated.

<sup>13</sup> Resp. to MGC IR 30, Springer Direct, Schedule 13 (e-docket no. 20102-47191-07).

## Responses

### Comment 82-68

Thank you for your comment. It has been noted and included in the record for this EIS.

### Comment 82-69

Thank you for your comment. It has been noted and included in the record for this EIS.

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Section 5.5 Safety and Health, p. 22)

82-70 | ~~Underground transmission lines generally produce weaker EMEs magnetic fields than overhead transmission lines due to phase cancellation and shielding their ability to be shielded and weakened by the earth, however, they may allow a pedestrian or cyclist to be closer to above or adjacent to the centerline source, thus slightly increasing the impact. may be exposed to elevated magnetic fields.~~ (Table ES-1, Section 5.5 Safety and Health, p. 22)

82-71 | ~~The maximum magnetic field strength for underground alternatives (Routes A and D) range from approximately 6.54 mG for the 1250 kcmil 43.08 mG for the 3,000 kcmil conductor option to 19.67 mG for the 3000 4350 kcmil conductor option.~~ (Table ES-1, Section 5.5 Safety and Health, p. 22)

82-72 | ~~All overhead route alternatives and substation locations have equal potential for Electromagnetic Interference (EMI) with implantable medical devices, although and underground construction options have the strongest measured effectively shield and block electric field strength, when measured at centerline at 1 meter above ground.~~ (Table ES-1, Section 5.5 Safety and Health, p. 22).

If an underground route is chosen, select conductor and configuration to further reduce magnetic fields. (Table ES-2, Section 5.5. Safety and Health, p. 28 and Table 6-3, Section 5.5. Safety and Health, p. 385).

82-73 | ~~Safety and Health: Risk of induced voltage and exposure to elevated magnetic fields. Similar effect for all overhead route alternatives. For Routes A, B, C, E2 and No electric fields, markedly reduced magnetic fields. For Route A (underground) and Route D.~~ (Table 6-1, Safety and Health, p. 380).

### 7) Environmental Justice

82-74 | The DEIS provides a comprehensive demographic overview regarding environmental justice communities. However, the DEIS fails to discuss some of the most significant adverse impacts of the project that would disproportionately impact these communities. The EIS should include adverse socioeconomic impacts on economic and community development of overhead lines and the potential risks of adverse impacts from electric and magnetic fields in its analysis of environmental justice.

82-75 | Substantive discussions of adverse socioeconomic impacts and adverse impacts of electric and magnetic fields are provided above. It should be emphasized that low-income persons are unlikely to be able to move their place of residence to avoid undesirable impacts, whether from urban blight, health risks or aesthetic impairment.

82-76 | Discussion of Environmental Justice in the EIS text should include adverse socioeconomic and health risks as environmental justice issues. The overview of direct/indirect effects (p. 209) should distinguish between underground and aboveground transmission lines and substations in discussing adverse impacts, while noting that the positive economic benefits of electric reliability are the same for either alternative. Discussion of economic and employment effects (pp. 230-232) should reflect impacts of overhead lines on economic and community development, and discussion of health effects (pp. 231, 233) should reflect potential for induced voltage and increased risks of leukemia and other adverse health outcomes with overhead transmission.

## Responses

### Comment 82-70

Thank you for your comment. It has been noted and included in the record for this EIS.

### Comment 82-71

Text in Section 5.6.2.2 has been edited with the correct magnetic field strengths.

### Comment 82-72

Thank you for your comment. It has been noted and included in the record for this EIS.

### Comment 82-73

Thank you for your comment. It has been noted and included in the record for this EIS.

### Comment 82-74

Thank you for your comment. It has been noted and included in the record for this EIS.

### Comment 82-75

Thank you for your comment. It has been noted and included in the record for this EIS.

### Comment 82-76

Thank you for your comment. It has been noted and included in the record for this EIS.

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The Executive Summary (Table ES-1), Executive Summary Mitigation Measures (Table ES-2), Comparative Impacts of Alternatives (Table 6-1) and Summary of Potential Mitigation Measures (Table 6-3) should be modified as follows:

- 82-77 Residents in the Project Area ~~primarily~~ would be affected by temporary construction and permanent aesthetic changes, such as but not limited to a loss of scenic resources. Residents would also have higher exposure to electric and magnetic fields, particularly if the transmission lines were routed overhead. Both the construction and operation of the transmission lines and substations are considered to result in a disproportionate adverse impact because the proposed locations are within areas that are predominately home to minority and low-income populations. (Table ES-1, Section 5.5 Environmental Justice, p. 21);
- 82-78 There may be ~~an significant decrease over time increase~~ in the amount of tax revenue available to Hennepin County and the city of Minneapolis if an overhead transmission route impedes housing and commercial development. (Table ES-1, Section 5.5 Environmental Justice, p. 21);
- 82-79 There may be ~~an increased a decrease~~ in indirect employment and affordable housing opportunities as public services if community development is constrained as a result of overhead transmission in these neighborhoods improve. (Table ES-1, Section 5.5 Environmental Justice, p. 21);
- 82-80 Construct the transmission lines underground to reduce adverse impacts on environmental justice communities. (Table ES-2, Section 5.5 Environmental Justice, p. 28 and Table 6-3, Section 5.5 Environmental Justice, p. 385)
- 82-81 Environmental Justice: No anticipated long-term or permanent effects specific to minority or low income populations within the Environmental Justice Study Area are anticipated. Socioeconomic impacts from reduced housing and commercial development, elevated electric and magnetic field exposures and aesthetic impacts of overhead transmission lines. "Similar effect for all overhead route alternatives." For Routes A, B, C, E2 and "No adverse impacts" for Route A (underground) and Route D. (Table 6-1, Safety and Health, p. 380).

We would respectfully request that the Draft EIS be modified to reflect the additional information and perspectives above.

Sincerely yours,



Paula Goodman Maccabee  
Attorney for Midtown Greenway Coalition

Attachments Enclosed

## Responses

### Comment 82-77

Thank you for your comment. It has been noted and included in the record for this EIS.

### Comment 82-78

Thank you for your comment. It has been noted and included in the record for this EIS.

### Comment 82-79

Thank you for your comment. It has been noted and included in the record for this EIS.

### Comment 82-80

Thank you for your comment. It has been noted and included in the record for this EIS.

### Comment 82-81

Thank you for your comment. It has been noted and included in the record for this EIS.

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### *Attachments*

- Attachment 1: Star Tribune article on Substation Noise.
- Attachment 2: Con Ed Substation Mitigation Design.
- Attachment 3: Xcel Resp. to MCG IR 27 (Substations).
- Attachment 4: Anaheim Park Substation, Transmission & Distribution World, April 2007.  
(No attachment heading due to document security).
- Attachment 5: Alhborn et al. pooled analysis study pertaining to childhood leukemia and magnetic field exposures.
- Attachment 6: Greenland et al. pooled analysis study pertaining to childhood leukemia and magnetic field exposures.
- Attachment 7: 2007 WHO Report on low frequency magnetic fields from power lines (excerpts).
- Attachment 8: Chart of Power Line Magnetic Field Chronic Exposure Limits.
- Attachment 9: Supp. Resp. to CapX2020 IR 1 and Response to CapX2020 IR 3 in Brookings' CapX2020 Case.
- Attachment 10: Chart of Power Line Precautionary Measures.

## Responses

## Commenter 83 – Minnesota Department of Transportation



### Minnesota Department of Transportation

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March 10, 2010

Bill Storm  
Office of Energy Security  
Minnesota Department of Commerce  
85 7th Place East, Suite 500  
St. Paul, MN 55101-2198

Re: In the Matter of the Application for a High Voltage Transmission Line Route Permit for the Hiawatha Transmission Project  
MPUC Docket No. E-002/TL-09-38  
OAH Docket No. 15-2500-20599-2

Dear Mr. Storm:

On January 8, 2010, the Minnesota Office of Energy Security (OES) issued a Notice of Availability of Draft Environmental Impact Statement and request for public comments on the Draft Environmental Impact Statement (DEIS) relating to the route permit application by Xcel Energy for a 115 kV transmission line in south Minneapolis, Minnesota. The Minnesota Department of Transportation (Mn/DOT) has reviewed the DEIS regarding the proposed transmission line project and submits the following comments in response to the Notice.

All of the proposed routes would cross Trunk Highway 55 (Hiawatha Avenue), and alternate route E2 would both cross and run parallel to highways that are part of the state trunk highway system and the National Highway System. Due to the significant magnitude of the impacts on these highways, the enclosed comments provide the background on Mn/DOT's Utility Accommodation Policy. Mn/DOT's policy seeks to permit utilities to occupy portions of the highway rights-of-way where such occupation does not put the safety of the traveling public or highway workers at risk or unduly impair the public's investment in the transportation system. The enclosed comments also provide input on specific impacts associated with the proposed project discussed in the DEIS.

Mn/DOT appreciates the opportunity to comment and wishes to participate in the development of the EIS so that it will contain a thorough evaluation of the effects various route proposals may have on the state transportation system. In addition, Mn/DOT is the owner of land along TH 55/Hiawatha Avenue that may be impacted by the selection of the site for one of the substations that Xcel proposes to construct. Mn/DOT's fundamental interest is to ensure that the EIS identifies and quantifies, to the extent possible, any impacts the proposed high voltage transmission line (HVTL) may have on the safety of the transportation system, the effectiveness of the operations or maintenance of the state trunk highway system, and any additional costs that may be imposed on the state trunk highway fund as a result of the location of the proposed HVTL.

Mn/DOT Comments

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## Responses

## Commenter 83 – Minnesota Department of Transportation

## Responses

Mn/DOT has adopted a formal policy and procedures for accommodation of utilities on the highway rights-of-way ("Utility Accommodation Policy"). A copy of Mn/DOT's policy can be found at <http://www.dot.state.mn.us/utility/files/pdf/appendix-b.pdf>.

Mn/DOT's approach to the high voltage transmission lines ("HVTL") such as those involved in this proposal is to work to accommodate these HVTLs within or as near as feasible to the trunk highway rights of way, based on an evaluation of the specific locations to ensure that appropriate clearance is maintained to preserve the safety of the traveling public and highway workers and the effective operation of the highway system now and in the foreseeable future. Mn/DOT's Utility Accommodation Policy seeks to guide the balance between accommodation of utility operations in the highway rights-of-way and preserving the safe and efficient operation of the transportation system.

The provisions of the Utility Accommodation Policy are based on the framework of several interrelated state and federal laws that led to its creation. These comments will outline the legal and regulatory structure under which the Policy was adopted, and will then discuss the types of circumstances and concerns that must be considered when applying the Utility Accommodation Policy to a specific situation as Mn/DOT works to accommodate a utility in a highway right-of-way while preserving the safe and efficient operation of the highway. The comments will provide as much specific information as is possible at this time on locations where the HVTL routes proposed in this application either cross or run parallel to the trunk highway system. Finally, these comments will discuss a few specific portions of the DEIS.

### I. Legal Framework Applicable to Mn/DOT's Utility Accommodation Policy

Mn/DOT's policy regarding accommodation of utilities is governed by both federal and state statutes and regulations. These comments will first describe the primary federal laws and then the state laws

#### A. Applicable Federal Laws

Certain highways in Minnesota are part of the National Highway System, which is established under 23 U.S.C. §103. The National Highway System and the Dwight D Eisenhower National System of Interstate and Defense Highways (Interstate System) are together known as the Federal-aid System. 23 U.S.C. §103(a). See also 23 CFR Part 470. In addition to the highways on the National Highway System, other highways also receive federal funding. Together, the highways in the National Highway System, the Interstate System, plus the other highways that receive federal funding are known as "Federal-aid highways." 23 CFR §470.103. The Federal-aid highways in Minnesota that are impacted by the Hiawatha project proposals include I-94, I-35W and TH 55. The Federal-aid highways that would be crossed by the route proposals are I-35W and TH 55.

Congress articulated the transportation policy of the United States in 23 U.S.C. §101(b). Among other things, Congress noted that "it is in the national interest to preserve and enhance the surface transportation system to meet the needs of the United States for the 21st Century," that "the current urban and long distance personal travel and freight movement demands have surpassed the original forecasts and travel demand patterns are expected to continue to change," and that "special emphasis should be devoted to providing safe and efficient access for the type and size of commercial and military vehicles that access designated National Highway System intermodal freight terminals." 23 U.S.C. §101(b)(3)(A), (B) and (E).

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## Responses

Federal law requires that "The real property interest acquired for all Federal-aid projects . . . shall be adequate for the construction, operation, and maintenance of the resulting facility and for the protection of both the facility and the traveling public." 23 C.F.R. §710.201(e). In addition, all real property that is part of the Federal-aid highway system must be devoted exclusively to highway purposes unless an alternative use is permitted by federal regulation or the Federal Highway Administration ("FHWA"). This basic proposition is stated in 23 C.F.R. §710.403, which provides:

"(a) The [State Transportation Department] must assure that all real property within the boundaries of a federally-aided facility is devoted exclusively to the purposes of that facility and is preserved free of all other public or private alternative uses, unless such alternative uses are permitted by Federal regulation or the FHWA. An alternative use must be consistent with the continued operation, maintenance, and safety of the facility, and such use shall not result in the exposure of the facility's users or others to hazards."

Similarly, 23 C.F.R. §1.23 restricts use of the highway right-of-way unless otherwise permitted. This section provides:

"(a) Interest to be acquired. The State shall acquire rights-of-way of such nature and extent as are adequate for the construction, operation and maintenance of a project.

(b) Use for highway purposes. Except as provided under paragraph (c) of this section, all real property, including air space, within the right-of-way boundaries of a project shall be devoted exclusively to public highway purposes. No project shall be accepted as complete until this requirement has been satisfied. The State highway department shall be responsible for preserving such right-of-way free of all public and private installations, facilities or encroachments, except (1) those approved under paragraph (c) of this section; (2) those which the Administrator approves as constituting a part of a highway or as necessary for its operation, use or maintenance for public highway purposes and (3) informational sites established and maintained in accordance with Sec. 1.35 of the regulations in this part.

(c) Other use or occupancy. Subject to 23 U.S.C. 111, the temporary or permanent occupancy or use of right-of-way, including air space, for nonhighway purposes and the reservation of subsurface mineral rights within the boundaries of the rights-of-way of Federal-aid highways, may be approved by the Administrator, if he determines that such occupancy, use or reservation is in the public interest and will not impair the highway or interfere with the free and safe flow of traffic thereon."

(Emphasis added.)

Federal law recognizes accommodating the placement of utility facilities as a permissible exception to the general mandate that all of a highway right-of-way, including the air space above the right-of-way, must be used solely for highway purposes. Section 109(i) of Title 23 of the U. S. Code provides:

"(1) In determining whether any right-of-way on any Federal-aid highway should be used for accommodating any utility facility, the Secretary shall—

(A) first ascertain the effect such use will have on highway and traffic safety, since in no case shall any use be authorized or otherwise permitted, under this or any other provision of law, which would adversely affect safety;

## Commenter 83 – Minnesota Department of Transportation

(B) evaluate the direct and indirect environmental and economic effects of any loss of productive agricultural land or any impairment of the productivity of any agricultural land which would result from the disapproval of the use of such right-of-way for the accommodation of such utility facility; and  
(C) consider such environmental and economic effects together with any interference with or impairment of the use of the highway in such right-of-way which would result from the use of such right-of-way for the accommodation of such utility facility."

The U.S. DOT has implemented this statutory directive by adopting the rules relating to accommodation of utilities found at 23 C.F.R. Part 645, Subpart B. These regulations require that each state transportation department submit its policies for accommodating utilities within highway rights of way to the FHWA. 23 C.F.R §645.215(a). See also 23 C.F.R §645.209(c). The FHWA will approve the policy upon determination that it is consistent with federal statutes and regulations, and any changes to the policy are also subject to FHWA approval. 23 C.F.R §645.215(b) and (c). Once a state's policy has been approved by the FHWA, the state transportation department can approve requests by a utility to use or occupy part of the right-of-way of a highway that is part of the Federal-aid highway system if the request is encompassed by that policy. Exceptions to the policy can be granted, but if a state proposes to grant to a utility an exception to its utility accommodation policy, the exception is subject to review and approval by the FHWA. 23 C.F.R § 645.215(d). This may be considered a federal action which would need to meet all requirements of the National Environmental Policy Act (NEPA), 42 U.S.C. §4321 et seq., to be in conformance with federal regulations.

### B. Applicable Minnesota Laws

In addition to these federal laws, Mn/DOT's policy on utility accommodation must also conform to laws of the State of Minnesota. Article 14 of the Minnesota Constitution establishes the state trunk highway system. It also establishes "a trunk highway fund which shall be used solely for the purposes [of constructing, improving and maintaining the trunk highway system]." Minn. Const. Art. 14, §5. Under Minn. Stat. §161.20, the Commissioner of the Department of Transportation is charged with the responsibility to carry out the directive of Article 14 to construct, improve and maintain the trunk highway system, subject to the directive that trunk highway funds may be used only for trunk highway purposes. All of the Federal-aid highways identified above as impacted by this proposal are part of the trunk highway system.

Minnesota has several statutes relating to use of highway rights-of-way by utilities. Minn. Stat. §222.37, Subd. 1, provides in part:

"Any . . . power company . . . may use public roads for the purpose of constructing, using, operating, and maintaining lines . . . for their business, but such lines shall be so located as in no way to interfere with the safety and convenience of ordinary travel along or over the same; and in the construction and maintenance of such line . . . the company shall be subject to all reasonable regulations imposed by the governing body of any county, town or city in which such public road may be."

Minn. Stat. §161.45 provides additional obligations for utility facilities occupying portions of a trunk highway right-of-way. Section 161.45, Subd. 1 provides in part:

"Electric transmission . . . lines . . . which, under the laws of this state or the ordinance of any city, may be constructed, placed or maintained across or along any trunk highway . . .

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. may be so maintained or hereafter constructed only in accordance with such rules as may be prescribed by the commissioner who shall have power to prescribe and enforce reasonable rules with reference to the placing and maintaining along, across, or in any such trunk highway of any of the utilities hereinbefore set forth."

Subdivision 2 of §161.45 specifies the general rule that if the relocation of a utility placed in a trunk highway right-of-way is necessitated by a construction project on the trunk highway, the utility bears the costs associated with the relocation of its facility. However, if a utility facility is located on the Interstate System, then the cost of relocation of such facility is to be paid out of the state Trunk Highway Fund. See Minn. Stat. § 161.46.

Minnesota Rules part 8810.3100 through 8810.3600 contain rules relating to placement of utility facilities in trunk highway rights of way. Under part 8810.3300, a utility must obtain a permit for any construction or maintenance work in a trunk highway right-of-way, and special rules apply to Interstate System highways. Part 8810.3300, Subp. 4 provides in part as follows:

"Utilities along the interstate highways shall be located outside the control-of-access lines except as outlined below. Where the control-of-access lines coincide with the right-of-way lines, the utilities shall generally be located on private property. Where the control-of-access lines and right-of-way lines do not coincide, utilities may in general be located in the area between them. All utilities shall be serviced and maintained without access from the ramps, loops, and through traffic roadbeds. Utilities may be serviced from frontage roads and roads other than another interstate highway which cross either over or under the interstate highway. At aerial crossings of an interstate highway, supporting poles may be located on interstate highway right-of-way if they are a minimum of 30 feet beyond the shoulders of all through traffic roadbeds; however, in no event shall they be located in a median unless its width is 80 feet or more. . . .

There may be extreme cases where, under strictly controlled conditions, a utility may be permitted inside the control-of-access lines along an interstate highway. In each case there must be a showing that any other utility location is extremely difficult and unreasonably costly to the utility consumer, that the installation on the right-of-way of the interstate highway will not adversely affect the design, construction, stability, traffic safety, or operation of the interstate highway and that the utility can be serviced without access from through traffic roadbeds, loops, or ramps."

In addition, Subp. 6 of part 8810.3300 requires that, except for the negligent acts of the state, its agents and employees, the utility shall assume all liability for and save the state harmless from any and all claims arising out of the utility's work and occupation of a portion of the trunk highway right-of-way.

### C. Mn/DOT's Utility Accommodation Policy

Mn/DOT has adopted a policy statement regarding the circumstances and methods under which it will grant permits to utilities to occupy a portion of a trunk highway right-of-way. Mn/DOT's Utility Accommodation Policy is in conformance with the federal and state statutes and regulations described above, and is also consistent with the American Association of State Highway and Transportation Officials (AASHTO) publications, [A Guide for Accommodating Utilities Within Highway Right-of-Way](#) and [A Policy on the Accommodation of Utilities Within Freeway Right-of-Way](#). Mn/DOT's Utility Accommodation Policy has been reviewed and approved by FHWA under 23 CFR §645.215(b). Therefore, with respect to Federal-aid highways, further review and approval by the FHWA is required for Mn/DOT to grant an

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exception to the general application of the Policy, but FHWA review and approval is not necessary for permits granted within the scope of the Policy.

Mn/DOT's Utility Accommodation Policy recognizes that it is in the public interest for utility facilities to be accommodated on highway rights-of-way when such use does not interfere with the flow of traffic and safe operation of vehicles or otherwise conflict with applicable laws or impair the function of the highway. The Policy applies to all utilities, both public and private. Therefore it speaks in somewhat generic terms to cover as many anticipated situations as possible.

The Policy was developed with integrated sections, and two or more sections usually need to be read together when applying the Policy to the context of a utility accommodation circumstance. Some of the provisions most relevant to this HVTL route application include:

- Part I.F – articulates the general policy of accommodation of utilities;
- Part I.G – contains provisions for granting exceptions to the Policy;
- Part V – addresses the location requirements for utilities occupying a portion of a highway right-of-way that apply to most highways;
- Part VI – contains special rules for utility accommodation requests along freeways;
- Part X – contains specific requirements relating to overhead power and communication lines.

Mn/DOT is expressly required by 23 CFR §645.209(c) to include in its Utility Accommodation Policy some provisions that apply specifically to freeways. Freeways are characterized by the fact that they are subject to full control of access – i.e., preference is given to through traffic by restricting areas where any person, including vehicles that use the highway, may enter or leave the freeway. By implementing full control of access, through traffic can safely achieve higher speeds and encounter fewer stoppages or slowdowns of the flow of traffic. On freeways, all crossings at grade are prohibited, and fencing is installed along the right-of-way to prevent other persons (including snowmobilers, bicyclists, walkers, etc.) or animals from entering the freeway right-of-way. Freeways also require special design considerations, such as the wider clear zones adjacent to the roadway due to the higher speeds achieved by through traffic on freeways.

The control of access aspect of freeways is a key consideration underlying the special rules regarding utility accommodation requests on freeways. The Utility Accommodation Policy states: "The installation of new utility facilities shall not be allowed longitudinally within the right of way of any freeway, except in special cases under strictly controlled conditions." Under Utility Accommodation Policy, Section VI C, the utility seeking to establish that special circumstances exist to justify an installation on a freeway must demonstrate to Mn/DOT's satisfaction the following:

- a. The accommodation will not adversely affect the safety, design, construction, traffic operations, maintenance, or stability of the freeway.
- b. Alternate locations are not available or are cost prohibitive from the standpoint of providing efficient utility services.
- c. The accommodation will not interfere with or impair the present use or future expansion of the freeway.
- d. The location of the utility facility outside of the right of way would result in the loss of productive agricultural land or loss of productivity of agricultural land. In this case, the

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utility owner must provide information on the direct and indirect environmental and economic effects for evaluation and consideration by the Commissioner of Transportation.

e. Access for constructing and servicing utility facility will not adversely affect safety and traffic operations or damage any highway facility."

Concurrence by the FHWA is also required before the permit for a longitudinal installation on a freeway can be granted.

### II. Overview of Transportation-Related Impacts of HVTLs on Trunk Highways

The preferred and alternate routes under consideration in this matter either cross over or run parallel to trunk highways in a number of locations. When a route is ultimately selected by the Minnesota Public Utilities Commission (MPUC), Xcel will need to obtain a valid permit from Mn/DOT in any location where the HVTL will occupy any portion of the highway right-of-way.

In connection with other proposals by electric utilities to construct HVTLs in Minnesota, Mn/DOT has engaged in an ongoing dialogue with representatives of the electric utilities, including Xcel, and the OES in an effort to identify information that will be needed to assess the permit applications and, to the degree that specificity is possible at this stage of the proceedings, areas where specific concerns will need to be addressed along various potential route/alignment scenarios. Mn/DOT believes these discussions have been beneficial for all participants. The discussions have been challenging due to the large number of locations where the proposed HVTL routes and the trunk highways potentially intersect, the variety of unique circumstances that exist along each of these potential locations, and the number of unknowns and uncertainties surrounding the selection of the actual locations where the electric utilities will eventually apply for permits from Mn/DOT.

One of the concepts that has been discussed with Xcel and the OES is the importance of recognizing that highway rights-of-way do not have a uniform width. The width of the right-of-way, and the distance from the centerline of the roadway to the boundary of the right-of-way, varies from highway to highway, and even from mile to mile along a given highway. The reasons for this variability are many, and include considerations such as the time when the right-of-way was purchased, the topography and geology of the area, the negotiations with the individual landowners from whom the right-of-way was acquired, and the timing and nature of changes and upgrades to the highway that have occurred over the years.

Therefore, a uniform policy that an HVTL can safely be located "X" feet or "Y" feet outside the highway right-of-way boundary line generally does not work well. A two-dimensional map does not provide sufficient information to determine a suitable alignment for a HVTL. Rather, Mn/DOT's approach is to evaluate the type of activities that regularly occur on and along highways. These activities can be evaluated in three groups – (a) traffic that uses a highway, (b) maintenance, repair and related activities and structures associated with the ongoing operation of the highway, and (c) construction activities that are likely to occur in the foreseeable future. These functions or uses of the highway each have a zone – i.e., a height and width – in which they take place either along the roadway surface or in the ditches, near bridges, intersections or interchanges where the maintenance and construction activities take place.

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Once the zones of these recurring highway activities are identified, a safety buffer zone from the location of the energized wires of the HVTLs must be applied. The Occupational Safety and Health Administration (OSHA) and the National Electric Safety Code (NESC) can provide guidance on the safety clearances for activities near various voltages of HVTLs. The OSHA or NESC safety buffer should be applied between the zones of transportation activities and the location of the energized lines.

### 1. Traffic That Uses a Highway

Minnesota's trunk highways are designed to facilitate both personal travel and the distribution of freight throughout the state. Pursuant to Minn. Stat. §§169.80 and 169.81, vehicles that do not exceed 13 feet 6 inches in height and 8 feet 6 inches in width can be operated on Minnesota's highways without a permit. Vehicles with larger dimensions, excluding farm vehicles, must obtain a permit. Over the past 5 years, Mn/DOT has issued 233,376 permits for oversize vehicles to operate on state trunk highways. These do not include oversize farm machinery (which do not require a permit) nor movements of houses or other buildings such as grain bins. The number of building moves varies between 400 and 600 per year. Of the oversize vehicle permits issued, 73 were for vehicles over 18 feet 5 inches high, with the largest reaching nearly 37 feet high. An example of the type of oversize loads frequently transported over trunk highways are the blades, base sections and nacelles used in constructing wind turbines.

In addition to freight and building moves, other traffic on the roadway portion of trunk highways includes such activities as snowplows, which operate on both the roadway and the shoulder. Snowplows are about 13 feet tall, and when their boxes are raised to distribute sand and salt, their height can reach as high as 18 feet. The relative size of snowplows on a typical highway surface is depicted in the drawing enclosed as Attachment 1.

### 2. Maintenance, Repair and Operational Activities

In addition to the zone associated with traffic traveling on a highway, there is another zone associated with maintenance and operational activities alongside the roadways. Examples of maintenance activities performed by highway workers, and the types of equipment commonly associated with those activities, include the following:

- guardrail and fence installation and repairs, using augers, loaders and skidsteers (which commonly have raised buckets for pulling posts, etc.);
- vegetation control, using mowers, bucket trucks for tree trimming, and equipment for applying herbicides;
- cleaning ditches, culverts and drains, using backhoes and excavators of various sizes that have boom arms that are used to scoop dirt and vegetation and deposit it into a dump truck that will be parked alongside the highway. Mn/DOT's larger ditch dredging equipment has a horizontal reach as long as 60 feet and a vertical operating dimension of up to 47 feet;
- vehicular accidents on highways often require special equipment to retrieve vehicles and repair damage. For example, when large vehicles such as trucks or buses run off the road or go down large ditches or into wetlands, large equipment with booms or winches may be used to pull them out;
- bridge inspections, using snoopers which have articulating arms that can lift a worker out over the side and then underneath the bridge structure.

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Occasionally there is a need for immediate medical transport from roadside locations due to accidents and illnesses. For these situations there are a number of air medical helicopters stationed throughout Minnesota that will land in the roadside environment. These aircraft require clear approach and departure paths as well as an area large enough for the helicopter to land. Given the dimensions of the helicopters used in Minnesota, an area with a diameter of 90 feet should be considered the minimum requirement for landing. There should be two approaches to this area from different directions separated by an arc of at least 90° so that the aircraft can land and take off without a tailwind. Powerlines can be a particularly difficult obstruction for helicopter landings at night. The lines themselves are nearly invisible to the pilot, who must use the presence of poles as evidence that the lines exist. Most helicopters operating in this environment have line cutters installed on the aircraft to cut powerlines they encounter. Even so, helicopter crashes occur when powerlines get entangled in their rotor system or landing gear.

Mn/DOT also maintains a number of structures alongside highways necessary for the safe and efficient operation of the highway, each of which requires periodic installation, maintenance and repair work. Examples of these structures include:

- road signs. The largest signs tend to be on freeways. Signs that extend out over the travel portion of a freeway must have 17.33 feet of clearance to the bottom of the sign, and the top of such signs can be 30.5 feet tall and may require boom trucks, bucket trucks or cranes to install or maintain such signs. Roadside guide signs along freeways can reach 13 feet tall and tend to be located as far out in the clear zone as practical.
- light posts, traffic control signals and poles for traffic monitoring cameras exist at various locations along highways, and range in height from 20 to 50 feet.
- high mast light towers are used along some freeways, and range in height from 100 to 140 feet.
- noise walls, which can be up to 20 feet high, are becoming increasingly common along freeways.

The relative size of some of these structures on a typical highway surface is depicted in the drawing enclosed as Attachment 2.

### 3. Future Construction Activities

Mn/DOT continually evaluates the future needs for the trunk highway system and has construction projects in varying stages of development. Some have been designed and funded and are ready for construction. Others have been identified as needed or are anticipated due to development trends but have not yet been funded. The types of construction projects Mn/DOT performs that could be impacted by the location of a HVTL range from relatively minor changes to the width of a highway to major reconstruction projects. Examples of such construction projects might include:

- widening a roadway by addition of travel lanes or turn lanes, installation of a roundabout, or widening a shoulder area;
- rebuilding a highway in a way that changes the location or grade of a roadway; and
- addition of an overpass or interchange on a freeway or other highway.

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In addition to changes in the configuration of a highway, consideration must be given to the equipment used during the construction process. Construction projects often involve the use of large excavators and cranes similar in size to the equipment described above which Mn/DOT uses for its maintenance activities. The equipment used in bridge work is especially large, usually requiring cranes with long booms to lift material into place. The equipment used on construction projects also needs to be refueled at the job site, which requires consideration of the safety precautions necessary for this procedure.

The activities associated with vehicular traffic using the roadway surface have a zone in which they typically occur. The drawings enclosed as Attachments 1, 2 and 3 do not depict a specific location on a specific highway. Rather, they are illustrative of the zones or areas on any given highway where transportation-related activities may take place. The lighter shaded area above the roadway surface in the drawing enclosed as Attachment 3 depicts the zone or area in which vehicular traffic on the roadway may operate. The zone within which the activities associated with maintenance work take place is depicted by the darker shaded area on the drawing enclosed as Attachment 3. In addition to evaluating these zones of activity, Mn/DOT will also consider factors such as the width of the right-of-way, the topography of the land and the geometry of the roadway in a specific location when assessing the suitability of that location for an HVTL to occupy a portion of a highway right-of-way.

83-1

Location of a HVTL in close proximity to a highway right-of-way limits future expansion or reconstruction of highways due to the complex and extremely costly nature of either moving the transmission lines or moving the path of the highway. In order for the Minnesota Public Utilities Commission to make a fully-informed selection of a route based on all the pros and cons of the various alternatives, these costs should be recognized and evaluated in the EIS evaluation of the impacts of the proposed routes. The EIS should include an evaluation of the risk of trunk highway funding liabilities, and the potential magnitude of such liabilities, that may be imposed on the Trunk Highway Fund resulting from various proposed alignments along trunk highway rights-of-way.

### III. Specific Comments on Matters Discussed in the DEIS

Once a route is selected by the MPUC, Mn/DOT may play a role in two contexts. First, if a substation site that is selected involves land owned by Mn/DOT, then a land sale transaction will be required. Second, Xcel will need to submit applications to Mn/DOT for any locations where the route intersects with a trunk highway. In applying its Utility Accommodation Policy to a permit application, Mn/DOT must evaluate each proposed pole location individually in relation to the topography of the land, the geometry of the roadway, the width of the highway right-of-way, the design of the HVTL structures, and other factors. Given the variability of these factors, Mn/DOT can, for the most part, provide only preliminary assessments on whether permits can be issued. As referenced earlier, Mn/DOT's approach to the HVTL route proposals is to work to accommodate these HVTLs within or as near as feasible to the highway rights of way, based on an evaluation of the specific locations to ensure that appropriate clearance is maintained to preserve the safety of the traveling public and highway workers and the effective operation of the highway system now and in the foreseeable future.

#### A. Proposed Hiawatha Substation Locations

Section 1.5.1 of the DEIS describes the locations that have been proposed for the Hiawatha substation that Xcel proposes to construct. In addition to the Hiawatha East and

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### Comment 83-1

Thank you for your comment. It has been noted and included in the record for this EIS.

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Hiawatha West sites proposed by Xcel, the DEIS identifies five additional sites proposed for the substation by the ATF, known as Sites G-1, G-2, G-3, G-4 and G-5. Four of the sites (Hiawatha West and G-3, G-4 and G-5) are located adjacent to TH 55/Hiawatha Avenue, and Mn/DOT either has or had ownership interests in parts of all of those sites. In the comments that follow, Mn/DOT will describe the property it owns and then the process that would be required for Mn/DOT to transfer ownership of the property.

In preparation for the expansion and reconstruction of TH55/Hiawatha Avenue, Mn/DOT acquired a number of parcels of property adjacent to the old highway right of way. In the area being considered for the substation site, much of the property was acquired from the Soo Line Railroad. The reconstruction of the highway is now complete, and in some areas there are remnants of land that could be severed from the highway right of way and sold. Mn/DOT's ownership interest in the four parcels adjacent to TH 55/Hiawatha Avenue is as follows:

83-2

- Hiawatha West: it appears that the entire area being considered for the substation at this location is on land owned in fee title by Mn/DOT. This plot of land could be considered as surplus and sold.
- Site G-3: it appears that Mn/DOT owns in fee title a portion, though not all, of the area proposed for the substation at this location. A portion of this property could be considered as surplus and sold.
- Site G-4: it appears that Mn/DOT owns in fee title a portion, though not all, of the area proposed for the substation at this location. This property is under lease to the Met Council for use as parking associated with the LRT station, which is situated directly across TH 55/Hiawatha Avenue.
- Site G-5: It appears that this site is, at least in part, on land that was previously owned by Mn/DOT. The land owned by Mn/DOT in this area has been deeded to the Met Council to use for public purposes associated with light rail transit. Ownership would revert to Mn/DOT if the site ceases to be used for the stated public purpose.

Any transfer of ownership of these parcels would need to follow the requirements of Minn. Stat. §161.44. Under this statute, Mn/DOT is not permitted to immediately sell the property to a third party such as Xcel. Rather, this statute establishes a hierarchy of persons to whom the land can be conveyed. Under Subd. 1, the property can be conveyed "for public purposes" to any political subdivision or agency of the State. If Mn/DOT were to convey the property to a political subdivision such as the City of Minneapolis, the City would have the option of selling the property to a third party such as Xcel. Subds. 2, 3 and 4, the land must be offered for sale to the previous owner, or to the surviving spouse or successor of the previous owner. Under these subdivisions, the prior owner/spouse/successor has 60 days to accept Mn/DOT's offer to reconvey the land. If the steps outlined in subdivisions 1 through 4 do not result in a sale of the property, then Mn/DOT may, under Subd. 5 offer the land for sale to the highest responsible bidder upon three weeks published notice, or under Subd. 6 offer the land to be sold in a public auction upon at least two weeks public notice. As custodian of public funds, Mn/DOT will seek a sales price of the appraised market value of the property. If the land remains unsold after being offered for sale to the highest bidder, then under Subd. 6a Mn/DOT can retain the services of a licensed broker to find a buyer, and the sales price must be not less than 90% of appraised market value.

With any of these parcels of land, another factor that is important to consider is the possibility that environmental contamination exists on the property. When Mn/DOT reconstructed TH 55 several years ago, a number of contaminated sites were identified along

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### Comment 83-2

Text in Sections 1.5.1.1, 1.5.1.6, 1.5.1.7, 1.5.1.8, 5.5.2.3, 7.2.3, 7.2.4, and 7.2.5 has been modified and supplemented to include information on MnDOT property ownership.

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83-3

the project corridor, including the CMC Heartland Partners Superfund site at 28<sup>th</sup> Street west of TH 55. Therefore, Mn/DOT would likely request that any site it owns that would be sold be investigated for possible contamination prior to the sale. The purchaser typically completes such an investigation, and the condition of the property can be documented as part of the sale process. If a cleanup would be needed as part of future development, Mn/DOT would likely require that the purchaser provide a Response Action Plan for site development, and a Minnesota Pollution Control Agency Voluntary Investigation and Cleanup Program letter approving the Response Action Plan before conveying the property. This ensures that the purchaser is working with the MPCA, and provides a measure of reassurance to Mn/DOT that any contaminated materials on the site will be managed properly during and after site development.

### B. Hiawatha Avenue Highway Crossing

Each of the preferred and alternate route proposals would need to cross TH 55/Hiawatha Avenue to make the connection between the Hiawatha substation and the Midtown substation. Xcel will need to obtain a permit from Mn/DOT to complete this crossing. Highway crossings, both overhead and underground, generally do not pose insurmountable difficulties in issuing a permit. Mn/DOT routinely grants such permits to a variety of types of utilities. These permits usually have conditions associated with them, such as placement of the poles so that they do not become a physical obstruction that might be struck by an errant vehicle or block the visibility of traffic. Mn/DOT also does not permit utilities to run diagonally across intersections, and prefers that crossings occur as close to right angles as possible. Mn/DOT has a long history of working with utilities, including Xcel, to establish appropriate conditions in locations where the utility seeks to cross a trunk highway. Mn/DOT does not anticipate encountering that would prevent it from being able to grant a permit, with appropriate conditions, for the HVTL proposed in this matter to cross TH 55/Hiawatha Avenue.

### C. Locations Parallel to Highway Rights of Way

83-4

Section 1.4.5 of the DEIS describes the pathways suggested for Route E1, as originally proposed by the ATF, and Route E2, which is evaluated in the DEIS. Route E1 as described and as depicted on Appendix B.1 would not be granted a permit by Mn/DOT because it seeks to run down the center of I-94. As noted in the DEIS, Route E1 is inconsistent with Minn. Rules part 8810.3300, subpart 4, as well as Mn/DOT's Accommodation Policy.

83-5

As discussed above, in the locations where a proposed HVTL route would run parallel to a freeway, under normal circumstances the poles and arms of those poles must be located so that they are outside the right-of-way boundary line. This would apply for Route E2, which is proposed to run parallel to I-35W and I-94, as well as to the portion of TH 55 north of Cedar Ave., as it has been constructed to freeway standards in that area. It is difficult at this time to determine from the route depicted in Appendix B.7 where the poles and wires would be located for which permits would be required. If the poles or arms would be located so as to occupy a portion of the freeway right-of-way, Xcel would need to seek an exception to the standard rule, and concurrence by the FHWA would be required for any exception that may be granted. In Section 5.16.2.1, the DEIS describes how narrowly constrained I-35W and I-94 are in the locations associated with proposed Route E-2. The highway clear zone is quite narrow, and noise walls have been installed along most of the route. There are also a number of bridges, both over and under the freeways along proposed Route E-2, and the abutments of these bridges are generally close to the freeway right-of-way line. The location of the transmission line would significantly impact future maintenance and construction activities on these bridges.

## Responses

### Comment 83-3

Text in Sections 4.2.1 and 5.2.2.2 has been modified and supplemented to include information on potential investigation and remediation requirements prior to sale.

### Comment 83-4

Thank you for your comment. It has been noted and included in the record for this EIS.

### Comment 83-5

Thank you for your comment. It has been noted and included in the record for this EIS.

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83-5

Thus, it is unlikely that Mn/DOT would be able to grant the exceptions to the standard rule that would be required for the proposed HVTL line to occupy portions of the interstate right-of-way parallel to I-35W or I-94.

In addition to Route E2, it appears that both Route B and Route C are proposed to run on Mn/DOT property along the east side of TH 55/Hiawatha Avenue before crossing over the highway. Permits from Mn/DOT would be required for these locations. Mn/DOT does not at this time have sufficient information about the locations proposed for the HVTL poles for Route B or Route C to state with specificity where or under what conditions permits might be granted. However, if one of these routes is selected, Mn/DOT anticipates working with Xcel to find locations for the poles that could be permitted without sacrificing the safe and efficient operation of the highway.

83-6

Finally, Mn/DOT wishes to underscore the importance of preserving sufficient flexibility for Mn/DOT to work with the applicant to determine an appropriate specific location for each pole to be placed along a trunk highway right-of-way. As the selection of the final route is made, in all locations where the route will either cross or run parallel to a trunk highway it is imperative that the designated route be sufficiently wide so that Mn/DOT and the applicant can work collaboratively to address the circumstances at each location and determine a specific alignment that can be permitted consistent with the considerations described in this letter.

Mn/DOT has a continuing interest in working with the OES to ensure that possible impacts to highways and other transportation infrastructure are adequately addressed. We appreciate the opportunity to provide these comments. Please feel free to contact me if you have any questions regarding the information provided.

Sincerely,



for  
David G. Seykora  
Office of the Chief Counsel

cc: Deborah R. Pile, OES  
Karen Hammel, OAG  
Lisa Agrimonti, Xcel Energy  
Michael Barnes, Mn/DOT  
Scott Peterson, Mn/DOT  
Jon Chiglo, Mn/DOT  
Val Svensson, Mn/DOT  
John Griffith – Mn/DOT Metro District

### Comment 83-6

Thank you for your comment. It has been noted and included in the record for this EIS.

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### Enclosures

Attachments 1, 2 and 3

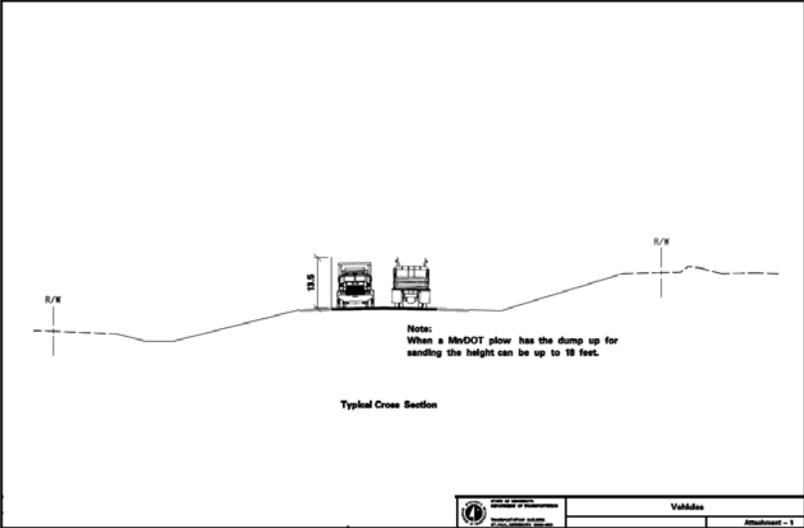
Federal Regulations (See [Code of Federal Regulations](#).)

2009 MN Statutes Ch. 161. (See [MN Statute 161.44](#), [MN Statute 161.45](#) and [MN Statute 161.46](#) )

Mn/DOT Utility Accommodation Policy (See <http://www.dot.state.mn.us/utility/policy/index.html> )

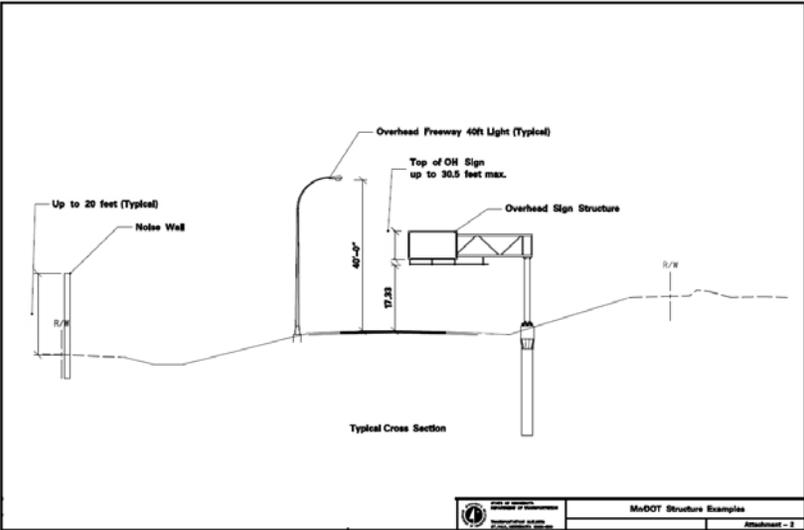
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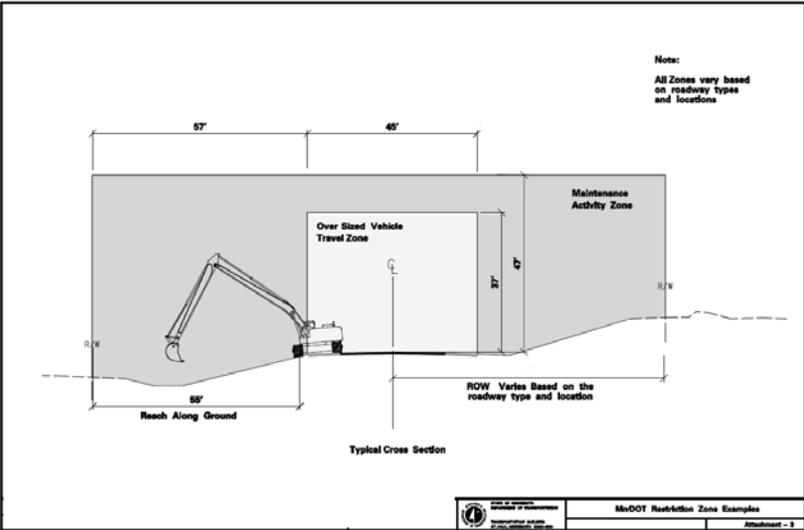
Committer 83 – Minnesota Department of Transportation

Responses



Committer 83 – Minnesota Department of Transportation

Responses



## Commenter 84 – Jesse Mortenson

**From:** [Jesse Mortenson](#)  
**To:** [Storm, Bill \(COMM\)](#)  
**Subject:** High Voltage Line on Midtown Greenway  
**Date:** Tuesday, February 09, 2010 11:22:17 PM

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Dear Sir,

84-1

I think the Greenway DEIS should better address conservation. I do appreciate the attention paid to the option of sinking the high power line underground. The green space in and around the greenway is absolutely critical and should not be marred by an above ground high voltage line. Cutting into the green space could severely damage the community value of the greenway. It's an important route for me to get to Minneapolis (from St. Paul by bike). The green space is part of the experience that makes it fun to bike to Minneapolis that way.

Sincerely,  
Jesse Mortenson

St. Paul

## Responses

### Comment 84-1

See response to Comment 24-4, which addresses the same concern.

## Commenter 85 – Hillary Oppmann

**From:** [apache@web.lmic.state.mn.us](mailto:apache@web.lmic.state.mn.us)  
**To:** [Storm, Bill \(COMM\)](#)  
**Subject:** Oppmann Wed Mar 10 16:34:52 2010 E002/TL-09-38  
**Date:** Wednesday, March 10, 2010 4:35:21 PM

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This public comment has been sent via the form at: [www.energyfacilities.puc.state.mn.us/publicComments.html](http://www.energyfacilities.puc.state.mn.us/publicComments.html)

You are receiving it because you are listed as the contact for this project.

Project Name: Xcel Energy Hiawatha 115 kV Transmission Line Project

Docket number: E002/TL-09-38

User Name: Hillary Oppmann

County: Hennepin County

City: Minneapolis

Email: [hillary.oppmann@gmail.com](mailto:hillary.oppmann@gmail.com)

Phone: 612-724-8110

**Impact:** I live two blocks from the Midtown Greenway and use it nearly every day either biking or walking, often with my two children. It is a fantastic amenity for the City and one that should be protected in the same way a park would be, even though it is not classified as such. Minneapolis is the envy of many cities for our beautiful urban greenway. We should treat it carefully, recognizing its historic sightlines and role as a place where people go not just to commute from point A to point B, but to garden, exercise, play, meet friends and build community.

85-1

I made comments at the public meeting but wanted to reiterate that the option of putting the lines underground should be given the fullest exploration, along with the option of paying for it by spreading the costs across the widest possible rate base. Burying the lines would significantly mitigate the impacts of the new power line on the neighbors and users of the Greenway, and burying the lines under 28th Street (or some other street) would allow for future development of transit on the south edge of the Greenway. It is very important that the impacts to future transit options be detailed.

## Responses

### Comment 85-1

Thank you for your comment. It has been noted and included in the record for this EIS.

## Commenter 85 – Hillary Oppmann

85-2

I would like to see more analysis of the impacts from locating the Hiawatha West substation on the current green space. This is a significant green space for the nearby neighborhoods and Greenway users and has been the focus of neighborhood efforts to preserve and enhance it for over 10 years. It is the largest such open space that the Greenway passes through on this side of town, an area notably lacking in large green space until you get to the River. In 2007 a community design process led to a native landscaping plan for the site that was implemented over two years with funding support from the Midtown Community Works Partnership and a large grant from MNDOT. Hundreds of community volunteers came out to plant several hundred native trees and shrubs over the last two years on Arbor Day. I was a part of all of the planning meetings in my role as a Community Organizer for the Longfellow Community Council and it came as a great surprise to find out last winter that Xcel wanted to build a substation on the site.

85-3

If the substation is relocated to a nearby industrial building (a more appropriate location), and the lines are buried, I want to understand better where the lines would come above ground and how to minimize their impact on this area. Where would the existing above ground lines connect to the new substation or power lines? It should be as far from the area of the greenspace, trail junctions, and Sabo Bridge as possible.

85-4

I hope the final draft of the EIS will include additional views showing the substation locations and the connecting lines from the vantage point of users of the Midtown Greenway, the Sabo Bridge and the LRT.

Thank you for considering these comments.

Sincerely,

Hillary Oppmann

Mitigation:

## Responses

### Comment 85-2

See response to Comment 76-19, which addresses the same concern.

### Comment 85-3

Underground transmission lines placed along Alignments A2 and A3 and Route D could be connected directly into the proposed substation locations while the lines are underground, such that the transition would happen within the walls of the proposed substations. Text in Sections 1.4.1 and 1.4.4 has been modified and supplemented to include information on the connection of underground transmission lines with aboveground substations.

### Comment 85-4

Simulated views of the substations and transmission line route alternatives are presented in Figures 5.8-3 through 5.8-21. These figures provide similar views of the substations as those requested. Due to the uniform substation walls proposed for all four sides of each substation, views and resulting impacts from each vantage surrounding the substations would be similar.

## **Commenter 85 – Hillary Oppmann**

Submission date: Wed Mar 10 16:34:52 2010

This information has also been entered into a centralized database for future analysis.

For questions about the database or the functioning of this tool, contact:

Andrew Koebrick  
andrew.koebrick@state.mn.us

## **Responses**

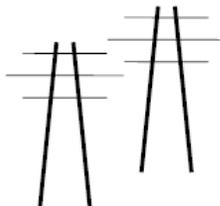
## Commenter 86 – Carol Overland

### Legalelectric, Inc.

Carol Overland Attorney at Law, MN #254617  
Energy Consultant—Transmission, Power Plants, Nuclear Waste  
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March 5, 2010

Bill Storm  
Energy Facilities Planning  
Minnesota Dept. of Commerce  
85 – 7<sup>th</sup> Place East  
St. Paul, MN 55101

eFiled & emailed: bill.storm@state.mn.us

Burl Haar  
Executive Secretary  
Public Utilities Commission  
121 – 7<sup>th</sup> Place East, Suite 350  
St. Paul, MN 55101

eFiled & emailed: burl.haar@state.mn.us

RE: Comments of Carol A. Overland  
Hiawatha Project DEIS

Dear Mr. Storm and Dr. Haar :

Thank you for the opportunity to comment on the DEIS for the Hiawatha transmission project.

These Comments on my own behalf, as an individual, and not representing any party. The Hiawatha Project is one I take very personally because if asked where I'm "from," I am from Phillips. I lived in Prestigious East Phillips for over 20 years, for three years just two blocks from the Sears Building, at one time on 14<sup>th</sup> Avenue just two houses from the then railroad and now Midtown Greenway, and the last ten of those years on 16<sup>th</sup> Avenue as a renter and then homeowner. My old block on 16<sup>th</sup> Avenue, from 25<sup>th</sup> to 26<sup>th</sup> Streets has an unusually high percentage of home ownership and has no boarded or vacant buildings. In these comments, I speak from my knowledge of the Phillips neighborhood then and now, and my appreciation for what it has become over time with so much hard work on the part of the community. The Hiawatha Project would be a detriment to the community's character, liveability and potential for growth and economic development.

In these comments, I adopt, as if fully related here, the Comments, if any, submitted by the Midtown Greenway Coalition, City of Minneapolis, Crew2, Inc., Hennepin County and Hennepin County Regional railroad Authority, Seward Neighborhood Group, Corcoran Neighborhood Organization, Phillips West

## Responses

## Commenter 86 – Carol Overland

Neighborhood Organization, Phillips West Neighborhood Organization, Midtown Phillips Neighborhood Association, East Phillips Improvement Coalition, Longfellow Community Council, and Little Earth of United Tribes.

86-1

For the record, the online version of the DEIS has "DRAFT" diagonally across it, and as such, it is regarded in pdf format as a graphic, takes up excessive space, and is ungainly to print. My computer, which handles documents of this type daily has crashed repeatedly when trying to search or jump to specific pages. We all know this is a draft. It is not necessary and it is unreasonably cumbersome to have the "DRAFT" graphic on each page.

Below each section in **Bold and Underlined** font is to be regarded as a section of related comments, and

- each "Comment" is separated out by bullet point.

### COMMENTS REGARDING THE DRAFT ENVIRONMENTAL IMPACT STATEMENT

#### Purpose of Transmission Line

The EIS Scoping Decision states that the EIS must address the "Purpose of the Transmission Line." The DEIS states that:

The Project is necessary to serve the increasing electrical demands of the Applicant's customers in the Project Area and would help tie the distribution system in south Minneapolis to the overall electrical system. The Project would increase the capacity of the electrical distribution delivery system and improve the reliability of the power supply to residences and businesses in south Minneapolis (Xcel Energy, 2009).

86-2

DEIS p. 35.

- This is the claimed purpose, which has not been proven to be fact.
- There has been no need determination regarding this project to provide a basis for this paragraph.
- This is a transmission line, but this paragraph states that it will increase capacity of the distribution delivery system. The EIS must disclose with specificity all changes within the Hiawatha Project made to the distribution delivery system that will improve it.
- The EIS must disclose with specificity how transmission to a substation will improve the distribution delivery system.
- There has been no disclosure of the incremental amount of increase in capacity of the electrical distribution delivery system – the EIS should disclose the incremental amount if increase in capacity.
- The DEIS should refer to any claims as "claimed" as in "The Applicant's claim that the project is necessary..."

#### Connected Actions

The EIS states that:

## Responses

### Comment 86-1

Thank you for your comment. It has been noted and included in the record for this EIS.

### Comment 86-2

Text in Section 1.2 has been modified and supplemented to included additional information on the purpose of the Project.

## Commenter 86 – Carol Overland

*Connected actions are defined in Minnesota Rules, part 4410.0200, subpart 9b, which states that “[t]wo projects are ‘connected actions’ if a responsible governmental unit determines they are related in any of the following ways: (A) one project would directly induce the other; (B) one project is a prerequisite for the other and the prerequisite project is not justified by itself; or (C) neither project is justified by itself.”*

*Minnesota Rules, part 4410.4400, subpart 1, states “[m]ultiple projects and multiple stages of a single project that are connected actions or phased actions must be considered in total when comparing the project or projects” in determining whether an EIS is necessary. In addition, Minnesota Rules, part 4410.1700, subpart 9, states, “[c]onected actions and phased actions shall be considered a single project for the purposes of the determination of need for an EIS.”*

*There are no connected actions associated with the Project. The proposed Hiawatha Line Project is a stand-alone project and is neither brought about by another project nor interdependent with another project.*

- The rules governing an EIS for high voltage transmission lines states that the rules cited by MOES are not applicable:

**7850.2900, Subp. 12. Environmental review requirements.**

The requirements of **chapter 4410** and parts [7849.1000](#) to [7849.2100](#) do not apply to the preparation or consideration of an environmental impact statement for a large electric power generating plant or high voltage transmission line except as provided in parts [7850.1000](#) to [7850.5600](#).

Minn. R. 7850, Subp. 12 (emphasis added).

- The scope requires that connected actions be addressed. Scope, p. 2.

There ARE connected actions which must be addressed to conform with the Scope as issued, of which the Hiawatha Project as applied for is just a small part.

- The first set of connected actions, covering a distance of 13.7 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 new Penn Lake substation near I-494 and Sheridan Avenue (D to E on map below)

## Responses

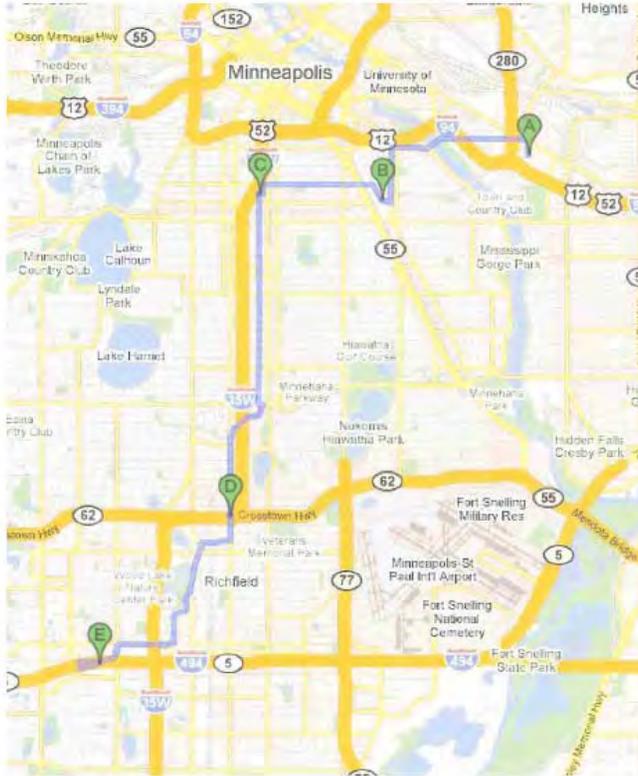
### Comment 86-3

Connected actions are defined in Minnesota Rules, part 4410.0200, subpart 9b, which states that “[t]wo projects are ‘connected actions’ if a responsible governmental unit determines they are related in any of the following ways: (A) one project would directly induce the other; (B) one project is a prerequisite for the other and the prerequisite project is not justified by itself; or (C) neither project is justified by itself.” OES does not consider the Project to represent a connected action because the proposed Project is a stand-alone project and is neither brought about by another project nor interdependent with another project.

86-3

**Commenter 86 – Carol Overland**

**Responses**

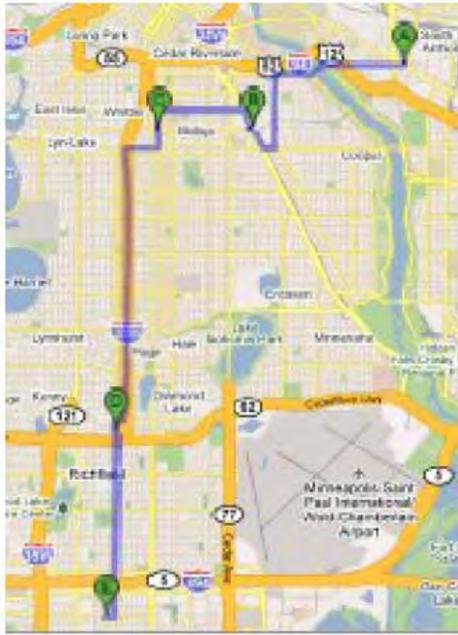


## Commenter 86 – Carol Overland

86-4

The second set of connected actions, covering a distance of 12.3 miles are:

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



## Responses

### Comment 86-4

See response to Comment 86-3, which addresses the same concern.

## Commenter 86 – Carol Overland

- 86-5
- Both of the above connected actions require a Certificate of Need as they are over 10 miles. Minn. Stat. 216B.243.
- 86-6
- 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 an Xcel engineer 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 \_\_ - NM-SPG Meeting Minutes, July 24, 2008.

- 86-7
- The sections from points C to D on both maps above, 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.

2007 Biennial Transmission Plan, section 7.5.<sup>1</sup>

- 86-8
- The DEIS should include a current photo of the Wilson substation, graphically displaying the recent improvements, with shiny new stations constructed for expansion waiting and available for the next incoming transmission line.

### Proximity to DOT controlled highways

<sup>1</sup> Available online at: [http://www.xceltrans.com/images/2007\\_Biennial\\_Report/Part%20I%20-%20Section%207-5.pdf](http://www.xceltrans.com/images/2007_Biennial_Report/Part%20I%20-%20Section%207-5.pdf)

## Responses

### Comment 86-5

See response to Comment 86-3, which addresses the same concern.

### Comment 86-6

See response to Comment 86-3, which addresses the same concern.

### Comment 86-7

See response to Comment 86-3, which addresses the same concern.

### Comment 86-8

See response to Comment 86-3, which addresses the same concern.

## Commenter 86 – Carol Overland

- 86-9
- The Hiawatha Project is proposed near two major thoroughfares, I-35W and Hwy. 55.
- MnDOT's Policy of Utility Accommodation must be considered when weighing siting and constructability issues near DOT Rights of Way. This could affect plans for substations near Interstate 35 and/or Highway 55/Hiawatha Avenue.
  - Specifically identify areas where planned route is not feasible due to DOT considerations.
  - Remove infeasible routes from consideration.

### Undergrounding

- 86-10
- The scope of the EIS states that "[p]olicy issues surrounding whether utilities, ratepayers or local-government should be liable for the cost to underground conductors" is an issue outside the scope of the EIS. Scope, p. 5. The third paragraph of p. 52 and p. 53 through the top half of p. 60 should be stricken. These issues can and should be fully addressed within the contested case.
- 86-11
- The Facilities Surcharge Rider is not the appropriate vehicle to address cost recovery for Public Utilities Commission ordered undergrounding. The Facilities Surcharge Rider is for distribution undergrounding requested by a City, 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, the Dept. is inappropriately comparing and considering various cost recovery mechanisms, but there is no basis on law for its allocations to other than the full city of Minneapolis IF and only IF the city requests undergrounding. There is no mechanism for cost allocation for Public Utilities Commission undergrounding.
- 86-12
- The Facilities Surcharge Rider is not the appropriate vehicle for allocating costs of undergrounding transmission as it is for distribution lines, not transmission. See PUC Docket E002/M-99-799. As then NSP stated:  
  
*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 B - Petition of Northern States Power Company for Approval of a City Requested Facilities Surcharge Rider, June 7, 1999.<sup>2</sup> 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.

<sup>2</sup> Available online:

[https://www.edockets.state.mn.us/EFiling/edockets/searchDocuments.do?method=edocketsResult&userType=public#\(4F2233FF-98DD-472B-A39B-504B172898F7\)](https://www.edockets.state.mn.us/EFiling/edockets/searchDocuments.do?method=edocketsResult&userType=public#(4F2233FF-98DD-472B-A39B-504B172898F7))

## Responses

### **Comment 86-9**

See response to Comment 83-2, which addresses the same concern. Text in Section 7.1 discusses alternative routes that were rejected from consideration under MnDOT's Accommodation Policy.

### **Comment 86-10**

See response to Comment 82-5, which addresses the same concern.

### **Comment 86-11**

See response to Comment 82-5, which addresses the same concern.

### **Comment 86-12**

See response to Comment 82-5, which addresses the same concern.

## Commenter 86 – Carol Overland

- Xcel/NSP have/are undergrounding transmission lines. 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 C - Agreement between NSP/Taylors Falls/St. Croix Falls.
- Agreements between parties can and have been made regarding treatment of costs of undergrounding. Id.
- 86-13 | • Costs of undergrounding are not nearly specific enough, and should address
- 86-14 | • The burying of lines between substations should not be considered non-standard. It is consistent with the environmental policies of the State of Minnesota to treat undergrounding as a standard application. See Exhibit D - Chisago County Resolution No. 001018-5.
- 86-15 | • The costs of undergrounding should be considered in a full cost/benefit analysis of this project.
- 86-16 | • 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 E - Comment of Power Line Task Force, Docket E002/M-99-799.
- 86-17 | • The cost estimates, both project cost estimates and undergrounding cost estimates, do not provide sufficient detail to analyze. Itemized cost estimates should be included in the EIS.
- 86-18 | • A full and detailed analysis of underground options, including location, configurations and cost, for all proposed alternatives should be included in the EIS.
- 86-19 | • 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.
- 86-20 | • Applicants repeatedly state that they do not underground lines. This is false. Applicants could, 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. The prior undergrounding experience of applicants should be incorporated into the EIS:
  - Undergrounding of the Chisago Project through Taylors Falls and St. Croix Falls, including down the bluff from Taylors Falls to the river;
  - Failure to underground through the City of Lindstrom;
  - Failure to underground through the cities of South St. Paul, Mendota Heights, and Sunfish Lake;
  - Other Xcel/NSP examples as available.

## Responses

### Comment 86-13

See response to Comment 82-5, which addresses the same concern.

### Comment 86-14

See response to Comment 82-5, which addresses the same concern.

### Comment 86-15

See response to Comment 82-5, which addresses the same concern.

### Comment 86-16

A discussion of the undergrounding of transmission lines or substations as a potential mitigation measure is discussed in Sections 5.1.3, 5.3.3, 5.5.3, 5.6.3, 5.7.3, and 5.8.3 of the EIS.

### Comment 86-17

See response to Comment 82-5, which addresses the same concern.

### Comment 86-18

Two underground transmission line route alternatives were identified in the Scoping Decision signed by the Director of the OES on September 3, 2009. The potential to underground the overhead route alternatives proposed by the Applicant are outside the scope of the EIS.

### Comment 86-19

See response to Comment 82-5, which addresses the same concern.

### Comment 86-20

Thank you for your comment. It has been noted and included in the record for this EIS.

## Commenter 86 – Carol Overland

- 86-21
- 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 online<sup>3</sup>, 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.
- 86-22
- 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.
- 86-23
- In the narrative, the narrative regarding EMF states that underground lines still generate electric fields. Specifics should be disclosed in this narrative, because the amount detectable above ground is nominal compared to above ground.
- 86-24
- Impacts analysis is skewed
- Because the “route” in question is a short line, a review of impacts is skewed if compared to a longer line.
- 86-25
- Because the “route” in question is short, costs are skewed.
- 86-26
- Undergrounding all or part of the route, if considered as mitigation, would have a much higher percentage of cost for this project than for a larger. Undergrounding should be weighed using costs of just the Hiawatha Project (B-C above) and of the entire connected lines envisioned (A-E above)

### Impacts analysis is not sufficient

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

- 86-27 →
- 86-28 →
- 86-29 →
- 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.
- 86-30 →
- 86-31 →
- 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.

<sup>3</sup> 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>

## Responses

### **Comment 86-21**

Thank you for your comment. It has been noted and included in the record for this EIS.

### **Comment 86-22**

Thank you for your comment. It has been noted and included in the record for this EIS.

### **Comment 86-23**

A discussion of EMF from underground transmission line appears in Section 5.6.2.2 and Table 5.6-3 of the EIS.

### **Comment 86-24**

Thank you for your comment. It has been noted and included in the record for this EIS.

### **Comment 86-25**

Thank you for your comment. It has been noted and included in the record for this EIS.

### **Comment 86-26**

Thank you for your comment. It has been noted and included in the record for this EIS.

### **Comment 86-27**

Thank you for your comment. It has been noted and included in the record for this EIS.

### **Comment 86-28**

Thank you for your comment. It has been noted and included in the record for this EIS.

### **Comment 86-29**

Thank you for your comment. It has been noted and included in the record for this EIS.

### **Comment 86-30**

Thank you for your comment. It has been noted and included in the record for this EIS.

### **Comment 86-31**

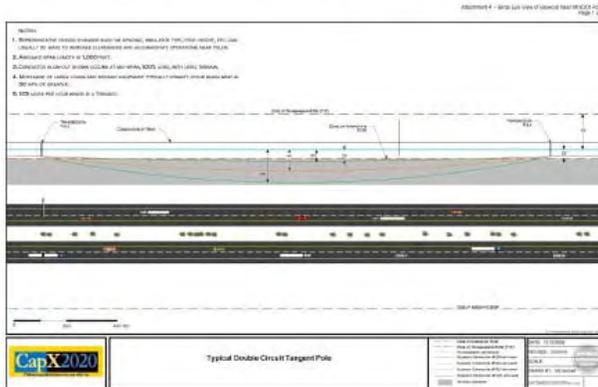
Thank you for your comment. It has been noted and included in the record for this EIS.

## Commenter 86 – Carol Overland

- 86-32 → ○ Railroad RoW use is sometimes leased. Any lease cost for easements should be disclosed and factored in.
- 86-33 → ○ Buy the Farm applies to residential and business property if easements are necessary.
- 86-34 → ○ A Buy the Farm estimate should be included in cost.

### Conductor Blowout

- 86-35
- In other dockets, conductor blowout of above-ground transmission conductors is a factor for easement acquisition and in DOT corridor sharing. This project is through a tightly compacted business and residential community. A birds-eye blowout diagram, such as the one provided in Poorkers CapX 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.)
  - Conductor blowout is also a factor in public health and safety consideration. The EIS should include a blowout drawing for the entire length of all aerial alternatives, such as the one below from the CapX Brookings docket.<sup>4</sup>



### Interested parties

<sup>4</sup> Available online at: <http://nocapx2020.info/wp-content/uploads/2010/02/attachment4-full.pdf>

## Responses

### **Comment 86-32**

Thank you for your comment. It has been noted and included in the record for this EIS.

### **Comment 86-33**

Minnesota Statute 216E.12, subd. 4 (referred to as the “buy the farm” provision) applies only to HVTLs with a capacity of 200 kV or more. The voltage of the transmission lines associated with the proposed Project is 115 kV; thus, the “buy the farm” provision is not applicable to the Project.

### **Comment 86-34**

See response to Comment 86-33, which addresses the same concern.

### **Comment 86-35**

Thank you for your comment. It has been noted and included in the record for this EIS.

## Commenter 86 – Carol Overland

## Responses

- 86-36
- The financial and ownership interests that Wells Fargo has in Xcel Energy should be disclosed and analyzed in the EIS. Wells Fargo is both an Intervenor in this proceeding and owner of significant stock in Xcel Energy, per recent SEC filings. A search of Xcel's SEC filings at [www.sec.gov](http://www.sec.gov) will reveal this interest.

### Electromagnetic field – the charts in the DEIS are way off

- 86-37 →
- 86-38 →
- 86-39 →
- 86-40 →
- Electromagnetic fields are grossly underestimated in this EIS, 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.
  - Table 8 presumes amperage levels that are so low as to be laughable – 230 and 138 amps.
  - 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 attached Exhibit F, from the SW MN 345kV project.
  - Load levels (current/amperage) must be considered within a range from low to medium to the thermal limits of the conductors.
  - Refer to attached Exhibit F. The lines are double circuited or single circuited 115kV 795kcmil ACSS twin-bundled conductor, with thermal limit amperage range from Attachment F's 1556-1569 amps (single circuit), or 3113-3138 amps (double circuit).
  - Magnetic fields are based on current/amps. Magnetic fields calculations, modeling estimates, must be based a range of assumptions, including:
    - 138 amps (as in DEIS)
    - 230 amps (as in DEIS)
    - 750 amps (roughly 1/2 thermal limits for single circuit)
    - 1500 amps (less than thermal limits for single circuit, less than half of thermal limits for double circuit)
    - 2250 amps (mid level for double circuit)
    - 3000 amps (approaching thermal limits for double circuit)
  - Accepting utility information without independent verification is inadequate.
  - Production of EMF chart in EIS without independent calculation based on conductor specifications is inadequate.
  - Dislose amperage range for the year project will be operational, and five years out, and if full A-E project scenario, as above, is built out.
  - Recalculate magnetic field levels for a year that the project will be operational, and five years out, i.e., 2014 and 2019.
  - EMF emissions for high and low profile substations must be calculated.

### Noise

- 86-49
- The substation noise section, p. 345, 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.

### **Comment 86-36**

Thank you for your comment. It has been noted and included in the record for this EIS.

### **Comment 86-37**

Electric and magnetic fields were calculated by Xcel Energy using the Electric Power Research Institute's software program ENVIRO.

### **Comment 86-38**

Modeling was conducted assuming operation conditions in Year 1.

Potential future expansion was not included in the proposed Project.

### **Comment 86-39**

The proposed Project is designed for an average current of 138 Amps and peak current of 230 Amps. The issues of need, including size, type and timing; questions of alternative system configurations; or questions of voltage, were identified to be outside the scope of the EIS in the Scoping Decision, signed by the Director of the OES on September 3, 2009.

### **Comment 86-40 through 86-42**

Thank you for your comment. It has been noted and included in the record for this EIS.

### **Comment 86-43**

See response to Comment 86-39, which addresses the same concern.

### **Comment 86-44 through 86-47**

Thank you for your comment. It has been noted and included in the record for this EIS.

### **Comment 86-48**

The calculated magnetic field at a distance of 0 feet from the substation wall would range between 3.24 and 13.09 mG for the Hiawatha Substation (low profile) and between 1.07 and 11.64 mG for the Midtown Substation (high profile).

### **Comment 86-49**

Thank you for your comment. It has been noted and included in the record for this EIS.

## Commenter 86 – Carol Overland

- 86-50 → • Establish specifications for all substation equipment, including transformers, switching gear, etc.
- 86-51 → • Perform noise modeling based on equipment specifications
- 86-52 → • EIS should include chart with substation noise modeling in the FEIS
- 86-53 → • EIS should address substation mitigation techniques, including but not limited to a contained building, walls, berms and evergreen plantings.
- 86-54 → • “Landscaping” must be specified.

### Substations

- 86-55 → • The DEIS addresses substations, but contains insufficient equipment regarding equipment to determine the purpose and capacity limitations.
- 86-56 → • EIS should include itemized identification of transformers and other substation equipment, including MVA ratings.
- 86-57 → • EIS should include line drawings of substations.
- 86-58 → • EIS should include powerflows showing inputs and outputs of substations.
- 86-59 → • EIS should include impact of profile on noise emitted by substation.

### Substation lighting

- 86-60 → • Light can be legally regarded as pollution. Frequently substations are lit up like a spacestation or refinery. The EIS must include information about substation and other lighting for this project.
- 86-61 → • The EIS must include a substation lighting plan and an analysis of lighting impacts.

### Property Values

- 86-62
- The EIS should contain an analysis and conclusions based on a range of reports:
    - Do high voltage electric transmission lines affect property value, Hamilton & Schwann (1995)
    - Priestley, Thomas, and Gary Evans. 1990. Perceptions of Transmission Lines in Residential Neighborhoods: Results of a Case Study in Vallejo, California. Study prepared for the Southern California Edison Company
    - Rhodeside and Harwell, Inc. 1988. Perceptions of Power Lines. Residents' Attitudes. Report prepared for Virginia Power Company, Richmond, Virginia.
    - An Analysis of the Impact of High Voltage Electric Transmission Lines on Residential Property Values in Orange County, New York. Storrs: Real Estate Counseling Group of Connecticut.
    - Hamilton, S. W., and Cameron Carruthers. 1993. The Effects of Transmission Lines on Property Values in Residential Areas. University of British Columbia.

See also Exhibit F, *The Effects of Overhead Transmission Lines on Property Values: A Review and Analysis of the Literature* Edison Institute (1992)

## Responses

### **Comment 86-50 through 86-51**

Thank you for your comment. It has been noted and included in the record for this EIS.

### **Comment 86-52**

Text in Section 5.14.2.2 has been supplemented with information on substation noise.

### **Comment 86-53**

A discussion of substation design appears in Sections 1.5 and 5.8.2.2 of the EIS.

### **Comment 86-54**

A discussion of substation equipment appears in Sections 1.5 and 3.3 of the EIS.

### **Comment 86-55**

Thank you for your comment. It has been noted and included in the record for this EIS.

### **Comment 86-56**

Information on substation transformers and other equipment, including MVA ratings, appears in Section 1.5.1 and 1.5.2 of the EIS.

### **Comment 86-57 through 86-58**

Thank you for your comment. It has been noted and included in the record for this EIS.

### **Comment 86-59**

See response to Comment 86-52, which addresses the same concern.

### **Comment 86-60**

A discussion of substation lighting appears in Section 3.3.1.3 of the EIS.

### **Comment 86-61**

Final lighting design plans for the substations have not been developed. A discussion of substation lighting appears in Section 3.3.1.3 of the EIS.

### **Comment 86-62**

Each of the sources identified in the comment were analyzed in the Chalmers (2009) study on property values, which is discussed in Section 5.4.3.3 of the EIS.

## Commenter 86 – Carol Overland

- 86-63 → • A range of property devaluation scenarios  
86-64 → • Socioeconomic discussion should address impacts of devaluation to individual landowners  
86-65 → • Socioeconomic discussion should address impacts of devaluation to tax base of local governments  
86-66 → • 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:

- 86-67 → • Examine the Comprehensive Plans of affected counties, cities and townships  
86-68 → • Identify areas within expansion zones of cities, using maps to show impacts.  
86-69 → • Address impacts on existing and planned development plans  
86-70 → • Address costs of impingement of future development and include in cost section of EIS

Thank you for the opportunity to submit this Comment.

Very truly yours,



Carol A. Overland  
Legalelectric  
P.O. Box 176  
Red Wing, MN 55066  
(612) 227-8638 and (302) 834-3466  
[overland@legalelectric.org](mailto:overland@legalelectric.org)

## Responses

### **Comment 86-63**

Thank you for your comment. It has been noted and included in the record for this EIS.

### **Comment 86-64**

Thank you for your comment. It has been noted and included in the record for this EIS.

### **Comment 86-65**

Thank you for your comment. It has been noted and included in the record for this EIS.

### **Comment 86-66**

Thank you for your comment. It has been noted and included in the record for this EIS.

### **Comment 86-67**

Thank you for your comment. It has been noted and included in the record for this EIS.

### **Comment 86-68**

Thank you for your comment. It has been noted and included in the record for this EIS.

### **Comment 86-69**

Thank you for your comment. It has been noted and included in the record for this EIS.

### **Comment 86-70**

Thank you for your comment. It has been noted and included in the record for this EIS.

## Commenter 87 – Owen

**From:** [Owen](#)  
**To:** [Storm, Bill \(COMM\)](#)  
**Subject:** Comments on High Voltage Line threat to Midtown Greenway  
**Date:** Saturday, February 27, 2010 8:36:02 AM

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Greetings,

Regarding the proposed Hiawatha Project power lines, I have the following concerns:

- 87-1** | First, I understand that no formal or complete needs assessment was done. I believe conservation and better use of more modern energy management and generation technology should be explored before a new power line and substations are approved.
- 87-2** | Problems with the DEIS:  
\*Not enough attention paid to electric and magnetic field impacts on health.
- 87-3** | \*Inadequate response to neighborhood concerns about the Hiawatha West substation site that would take away an important greenspace on the Greenway.
- 87-4** | \*Energy conservation is not addressed as a potential mitigation measure, but it should be in order to keep the lines and substations from expanding in the future. Ideally, the whole project should be avoided with conservation, alternative means of generating electricity locally including solar, and smart grid to tie it all together.
- 87-5** | GENERAL CONCERNS ABOUT THE PROJECT:  
\*Don't mess with the Greenway or our neighborhoods.  
  
\*If the lines have to go in, put them underground.  
  
\*Regarding Hiawatha substation, don't put the substation there, save our

## Responses

### Comment 87-1

See response to Comment 72-1, which addresses the same concern.

### Comment 87-2

See response to Comment 72-2, which addresses the same concern.

### Comment 87-3

See response to Comment 72-3, which addresses the same concern.

### Comment 87-4

See response to Comment 72-4, which addresses the same concern.

### Comment 87-5

See response to Comment 72-5, which addresses the same concern.

## Commenter 87 – Owen

- 87-5** | greenspace on the Greenway.
- 87-6** | \*Energy conservation should be a part of this project.
- 87-7** | \*Environmental justice:  
-Communities most impacted by the aesthetics and potential health risks are primarily low-income and people of color.
- 87-8** | -If the lines go in and are put underground instead of on overhead towers, the extra cost for underground should be paid for by the widest set of rate-payers possible, such all metro, or all state, or Xcel's entire midwest region.

## Responses

### Comment 87-6

See response to Comment 72-6, which addresses the same concern.

### Comment 87-7

See response to Comment 72-7, which addresses the same concern.

### Comment 87-8

See response to Comment 72-8, which addresses the same concern.

## Commenter 88 – Ray Paulson

**From:** [apache@web.lmic.state.mn.us](mailto:apache@web.lmic.state.mn.us)  
**To:** [Storm, Bill \(COMM\)](#)  
**Subject:** Paulson Wed Mar 10 12:33:57 2010 E002/TL-09-38  
**Date:** Wednesday, March 10, 2010 12:34:19 PM

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This public comment has been sent via the form at: [www.energyfacilities.puc.state.mn.us/publicComments.html](http://www.energyfacilities.puc.state.mn.us/publicComments.html)

You are receiving it because you are listed as the contact for this project.

Project Name: Xcel Energy Hiawatha 115 kV Transmission Line Project

Docket number: E002/TL-09-38

User Name: Ray Paulson

County: Hennepin County

City: Minneapolis

Email: [ray.paulson@gmail.com](mailto:ray.paulson@gmail.com)

Phone: 612-521-0381

88-1

Impact: In section 5.5 of the EIS covering Social Justice, the document provides demographic data for the impacted area. The EIS does not mention how this project compares with similar projects in areas of Minnesota that are at or below the state average for poverty, English-proficiency, and minority populations. Generally people living in areas without those characteristics have more choice and more power to control where they live and whether they can CHOOSE to live next to a power line. Further, Xcel may be less motivated to choose the cheapest option (above ground substations, above ground lines) for installing High Voltage Transmission Lines in other areas where the residents form a different demographic composite. Please provide comparative information between this project, other High Voltage Transmission Lines in urban neighborhoods, and other projects in non-urban neighborhoods so that the public can determine whether or not the proposed Hiawatha project is "fair" compared to other similar projects.

88-2

Mitigation: The line and the substation(s) should be placed underground, regardless of the cost, because above ground facilities create a negative affect on the community that would be intolerable in a more affluent area.

Submission date: Wed Mar 10 12:33:57 2010

## Responses

### Comment 88-1

Thank you for your comment. It has been noted and included in the record for this EIS.

### Comment 88-2

Thank you for your comment. It has been noted and included in the record for this EIS.

## Commenter 89 – Ray Paulson

**From:** [spache@web.lmic.state.mn.us](mailto:spache@web.lmic.state.mn.us)  
**To:** [Storm, Bill \(COMM\)](#)  
**Subject:** Paulson Wed Mar 10 12:49:39 2010 E002/TL-09-38  
**Date:** Wednesday, March 10, 2010 12:50:01 PM

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This public comment has been sent via the form at: [www.energyfacilities.puc.state.mn.us/publicComments.html](http://www.energyfacilities.puc.state.mn.us/publicComments.html)

You are receiving it because you are listed as the contact for this project.

Project Name: Xcel Energy Hiawatha 115 kV Transmission Line Project

Docket number: E002/TL-09-38

User Name: Ray Paulson

County: Hennepin County

City: Minneapolis

Email: [ray.paulson@gmail.com](mailto:ray.paulson@gmail.com)

Phone: 612-521-0381

89-1

Impact: Hiawatha West, the substation location favored by Xcel that is at the Hiawatha end of the line does not take into account recent development of the site by the community, including landscaping and planting trees and vegetation specifically designed to reduce the possibility of further arsenic contamination from disturbing the soil. Building a substation at this site not only destroys the work done by the community to "de-industrialize" the location, but it also reverses and negates the efforts taken to control contaminants coming from the site.

89-2

The dismissal of alternative sites seems to be summed up with the phrase "the space is not large enough to accommodate a low or high profile substation design." This is insufficient information. Specifics must be provided. I wear a size 11 shoe, but it is insufficient to claim that shoes sized 7 and 10 1/2 "don't fit". I could wear a 10 1/2, but it pinches a little. Xcel needs to provide details for the sites not considered "viable".

89-3

Mitigation: In order to preserve the strides taken by the community to reclaim the site as a green zone, the Hiawatha substation should be located at proposed substation site G-4 where no community development action has taken place (to

## Responses

### Comment 89-1

See response to Comment 76-19, which addresses the same concern.

### Comment 89-2

Text in Sections 1.5 and 7.2 has been modified and supplemented to include information on the potential to construct a high or low profile substation within the space available at each of the alternative substation locations.

### Comment 89-3

Thank you for your comment. It has been noted and included in the record for this EIS.

## Commenter 89 – Ray Paulson

89-3

my knowledge). The claim is that the site is not big enough for a substation, but it's easy to write off alternative sites when the Hiawatha West site looks so simple.

89-4

Alterations to substation plans that would allow alternative sites to be considered need to be incorporated into the analysis.

Submission date: Wed Mar 10 12:49:39 2010

This information has also been entered into a centralized database for future analysis.

For questions about the database or the functioning of this tool, contact:

Andrew Koebrick  
andrew.koebrick@state.mn.us

## Responses

### Comment 89-4

Text in Sections 1.5 and 7.2 has been modified and supplemented to include information on the potential to construct a high or low profile substation within the space available at each of the alternative substation locations.

**Commenter 90 – Silvia Perez**



85 7th Place East, Suite 500, St. Paul, MN 55101-2198  
main: 651.296.4026 tty: 651.296.2860 fax: 651.297.7891  
www.commerce.state.mn.us

**Public Comment Sheet  
DRAFT EIS  
Xcel Energy Hiawatha HVTL Project  
PUC Docket Number: E002/TL-09-38**

Name:

Representing:

Silvia Pérez sphakal103@gmail.com

Address:

Email:

Comment:

nee. work. in community For:  
medio Ambiente.

Please submit comments to meeting moderator or send to:

William Cole Storm  
MDOC  
85 7<sup>th</sup> Place East  
Suite 500  
St. Paul, MN 55101-2198

Email: bill.storm@state.mn.us  
Voice: 651-296-9535  
Fax: 651-297-7891

**Responses**

**Comment 90-1**

Thank you for your comment. It has been noted and included in the record for this EIS.

90-1

## Commenter 91 – Esther Perry

**From:** [Esther Perry](#)  
**To:** [Storm, Bill \(COMM\)](#)  
**Subject:** Hiawatha transmission line  
**Date:** Monday, February 06, 2010 6:35:00 PM

---

Dear Bill,  
As a bicycling citizen of Minneapolis, I appreciate the Greenway for its low level noise. I am very sensitive to high pitch noises that emanate from other power lines I have known. I am concerned about the electrical project along the bike path for my own peace, but also for the safety of people who live along the 29th Street corridor. I know that the noise is only one factor, but I request that Xcel not get a free pass to put in power lines without proving safety, as well as need, as required prerequisites to moving ahead on this project. Thanks for your time and attention to this proposed project.

Sincerely, Esther Perry

## Responses

### Comment 91-1

Thank you for your comment. It has been noted and included in the record for this EIS.

91-1

## Commenter 92 – Julia Philips

**From:** [apache@web.lmic.state.mn.us](mailto:apache@web.lmic.state.mn.us)  
**To:** [Storm, Bill \(COMM\)](#)  
**Subject:** Philips Sun Feb 28 10:29:37 2010 E002/TL-09-38  
**Date:** Sunday, February 28, 2010 10:30:05 AM

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This public comment has been sent via the form at: [www.energyfacilities.puc.state.mn.us/publicComments.html](http://www.energyfacilities.puc.state.mn.us/publicComments.html)

You are receiving it because you are listed as the contact for this project.

Project Name: Xcel Energy Hiawatha 115 kV Transmission Line Project

Docket number: E002/TL-09-38

User Name: Julia Philips

County: Hennepin County

City: Minneapolis

Email: [jtpjef@gmail.com](mailto:jtpjef@gmail.com)

Phone: 612-374-2482

Impact: The Greenway site would be the best, ONLY if the lines and substations are buried! Overhead lines in such a high-density residential area are a bad idea--we don't want to have them and the health risks.

Mitigation: Bury the lines.

Submission date: Sun Feb 28 10:29:37 2010

This information has also been entered into a centralized database for future analysis.

For questions about the database or the functioning of this tool, contact:

Andrew Koebrick  
[andrew.koebrick@state.mn.us](mailto:andrew.koebrick@state.mn.us)

92-1

## Responses

### Comment 92-1

Thank you for your comment. It has been noted and included in the record for this EIS.

## Commenter 93 – Powderhorn Park Neighborhood Association

**Powderhorn Park Neighborhood Association**  
821 E 35<sup>th</sup> St  
Minneapolis, MN 55407  
612-722-4817  
[www.ppna.org](http://www.ppna.org)

Bill Storm  
MN Dept of Commerce  
85 7<sup>th</sup> Place, Ste 500  
St Paul, MN 55101-2198  
[Bill.storm@state.mn.us](mailto:Bill.storm@state.mn.us)  
Ph: 651- 296-9535  
Fax: 651-297-7891

On behalf of the Powderhorn Park Neighborhood Association (PPNA) and our members who are directly impacted by this project, we extend our comments on the DEIS. As a community we are sympathetic the needs of our local businesses who are being negatively impacted by a lack of capacity in the current grid, that being said our concerns with the DEIS remain, they are:

93-1

1) The DEIS does not adequately address the impacts on health by high voltage electric and magnetic fields.

93-2

2) The DEIS does not adequately address energy conservation, alternative energy sources, and "smart grid" power distribution as potential mitigating measures.

93-3

3) The DEIS should address the potential effect of above ground high tension lines on housing and development financing, particularly as it relates to obtaining insured loans.

93-4

4) The DEIS needs to better address the special need of the affected neighborhoods as densely populated areas of low income and vulnerable populations. We believe that retaining and maintaining the existing green spaces is especially vital to raising the health and wellness in this area and within these populations.

93-5

5) The DEIS needs to better address the potential negative impact upon much needed alternative transportation usage. In particular, power lines above or below ground will disrupt, at least temporarily if not permanently, transportation cycling along one of our nation's foremost cycling corridors. Such lines could also altogether preclude the proposed installation of streetcars within the corridor.

93-6

If power lines must be installed, our preference is for underground lines, in the middle of a street (preferably East 28<sup>th</sup> Street), as far as possible from pedestrians, private homes and businesses. Furthermore, to maximize efficiency, installation of such lines should, if at all possible, coincide with regular road maintenance.

Sincerely,

The PPNA Board Of Directors

## Responses

### Comment 93-1

A discussion of EMF appears in Section 5.6.1.2 and 5.6.2.2 of the EIS.

### Comment 93-2

See response to Comment 24-4, which addresses the same concern.

### Comment 93-3

A discussion of HUD financing, redevelopment, and property values appears in Section 5.4.2.2 of the EIS.

### Comment 93-4

A discussion of environmental justice appears in Section 5.5 of the EIS.

### Comment 93-5

A discussion of the potential impacts of transmission lines on bicycle facilities appears in Section 5.16.2.1 of the EIS.

### Comment 93-6

Thank you for your comment. It has been noted and included in the record for this EIS.

Commenter 94 – Catherine Pususta



85 7th Place East, Suite 500, St. Paul, MN 55101-2198  
main: 651.296.4026 tty: 651.296.2860 fax: 651.297.7891  
www.commerce.state.mn.us

Public Comment Sheet  
DRAFT EIS  
Xcel Energy Hiawatha HVTL Project  
PUC Docket Number: E002/TL-09-38

Name: Catherine Pususta Representing: Myself

Address: 2616 14th Ave So. Email:

Comment: I am against the above ground power lines for the Hiawatha HVTL Project. It is old technology for this century. It would be an eyesore damaging our beautiful greenway that we worked so hard to bring to life. I understand the need for more power in the neighborhood, but I would support an underground, buried cable. If this was proposed for Minnehaha Parkway, or somewhere in Edina, I think there is no way it would be proposed to be above ground.

Please submit comments to meeting moderator or send to:

William Cole Storm  
MDOC  
85 7th Place East  
Suite 500  
St. Paul, MN 55101-2198

Email: bill.storm@state.mn.us  
Voice: 651-296-9535  
Fax: 651-297-7891

Responses

Comment 94-1

Thank you for your comment. It has been noted and included in the record for this EIS.

94-1

## Commenter 95 – Eric Refsell

**From:** [apache@web.lmic.state.mn.us](mailto:apache@web.lmic.state.mn.us)  
**To:** [Storm, Bill \(COMM\)](#)  
**Subject:** Refsell Sat Mar 6 17:18:15 2010 E002/TL-09-38  
**Date:** Saturday, March 06, 2010 5:18:34 PM

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This public comment has been sent via the form at: [www.energyfacilities.puc.state.mn.us/publicComments.html](http://www.energyfacilities.puc.state.mn.us/publicComments.html)

You are receiving it because you are listed as the contact for this project.

Project Name: Xcel Energy Hiawatha 115 kV Transmission Line Project

Docket number: E002/TL-09-38

User Name: Eric Refsell

County: Hennepin County

City: Minneapolis

Email: [erefsell@yahoo.com](mailto:erefsell@yahoo.com)

Phone:

95-1

Impact: It seems to me that this project is just another in the long list of projects that try to take advantage of the somewhat disadvantaged Phillips neighborhood to the benefit of it's more advantaged neighbors. This is an unfortunately nagging problem which does nothing to help the community's revival and exhausts it's residents. The impact statement pays mere lip service to the potential community impact during the eventual construction and implementation of these lines. Major overhead power lines such as the proposed doom the surrounding areas to secondary status and promote concentrated blight- a kick in the face to an area on the upswing. Given the very recent major construction on Lake St., it seems that another of the project's issues is with timing. A better relationship with the city could have prevented such prolonged reconstruction for local residents and would have been a case study on efficiently executed city planning.

95-2

Mitigation: The best option to mitigate the long-term community impact from this project would be to bury the lines. Keeping these lines out of sight is single greatest consideration regarding the continued vitality of the effected neighborhoods.

Submission date: Sat Mar 6 17:18:15 2010

## Responses

### Comment 95-1

Thank you for your comment. It has been noted and included in the record for this EIS.

### Comment 95-2

Thank you for your comment. It has been noted and included in the record for this EIS.

## Commenter 96 – Elizabeth Schmiesing



UNITED STATES | ENGLAND | GERMANY | CHINA

March 10, 2010

### BY E-MAIL

Bill Storm  
Project Manager  
Minnesota Department of Commerce  
85 Seventh East  
Suite 500  
St. Paul, MN 55101-2198

**Re: Comments on Hiawatha Transmission Line Project Draft Environmental Impact Statement**

Dear Mr. Storm:

Wells Fargo requests that the information provided in these comments be incorporated into the Final Environmental Impact Statement ("FEIS") and considered by the Department of Commerce in connection with its input into the Hiawatha Transmission Line Project decision and by the Public Utilities Commission in its decision on the Project.

Wells Fargo Bank, N.A. ("Wells Fargo") owns and occupies a corporate campus in Minneapolis located at 2701 Wells Fargo Way. Wells Fargo's interest in this matter stems from the inclusion in the Draft Environmental Impact Statement ("DEIS") of two alternatives for the location of the proposed Midtown Substation, designated in the EIS as Mt-28N and Mt-28S. Both of these potential locations were considered by the project applicant, Xcel Energy, but were rejected for reasons set forth in the DEIS. These alternatives were carried forward in the DEIS, however, as a result of the advisory task force ("ATF") process.

Siting the Midtown Substation at either of the ATF Alternatives would significantly and adversely effect Wells Fargo's ability to expand operations at its South Minneapolis Campus. As noted in the DEIS, Wells Fargo is an important employer both in the West Phillips neighborhood and in the City of Minneapolis as a whole. Wells Fargo employs approximately 4,500 people at its South Minneapolis campus, and likely could not substantially expand its operations without constructing an additional building and additional parking. Any negative impact on Wells Fargo's ability to expand at its current location

2200 WELLS FARGO CENTER | 99 SOUTH SEVENTH STREET | MINNEAPOLIS MINNESOTA 55402-3991  
TELEPHONE 612-766-7000 | FACSIMILE 612-766-1600 | WWW.FAEGRE.COM

## Responses

## Commenter 96 – Elizabeth Schmiesing

Bill Storm  
March 10, 2010  
Page 2

would create an adverse socioeconomic impact on the area and on the City. This potential impact has not been addressed in the DEIS, and should be addressed in the FEIS.

96-1

If selected, a substation at ATF Alternative Mt-28N would occupy land that has been slated for development of an additional office building at the campus. The area that would be occupied by a substation if ATF Alternative Mt-28S is selected would take a parking lot that has been slated for expansion of Wells Fargo's existing parking ramp off of 28th street, known as the South Ramp. The statement in the DEIS that the parking lot is currently in use as a shuttle lot for Children's Hospital is inaccurate. That lot is used for parking by Wells Fargo employees. If the substation is put in either of the ATF Alternative locations, it would make it very difficult, if not impossible, for Wells Fargo to expand in its current location.

### Impacts associated with substation siting at ATF Alternative Mt-28N

96-2

If the substation was located at this site, Wells Fargo's ability to expand at the South Minneapolis campus will be adversely affected. Wells Fargo's expansion plan for the campus anticipates the eventual addition of another building in the spot that would be occupied by a substation if the ATF Alternative Mt-28N site is selected. There is no other appropriate location for a building on the campus, and Wells Fargo's ability to expand in that location would likely be lost.

96-3

In addition, this site would likely be impacted by any expansion of I-35W in this area. When Wells Fargo went through the redevelopment process, there were extensive discussions with the various transportation agencies about the potential freeway expansion, and Wells Fargo agreed that it would give up some land adjacent to the freeway for any such expansion. Because different designs for the expansion have been prepared and discussed over the years, it is not known exactly how much land would be taken from Wells Fargo for that expansion. That said, any substation constructed here would need to be built in such a manner that a buffer is left for that potential freeway expansion.

96-4

There is discussion in the DEIS of mitigating the impacts of the substations by building them underground. This would likely not mitigate the adverse impacts on Wells Fargo's ability to expand, however, because if Wells Fargo decides to build a building to expand its operations, the building would likely be at least four stories tall and therefore would require substantial foundations. The DEIS does not address whether any structure could be built on an underground substation.

### Impacts associated with substation siting at ATF Alternative Mt-28S

96-5

The South Ramp expansion is slated for the area that would be occupied by a substation if ATF Alternative Mt-28S is selected. Any expansion of operations would require parking expansion, as parking is already limited on the campus. There are currently 3,250 spots for 4,500 employees. The lot that is proposed as an alternative substation site provides

## Responses

### Comment 96-1

Text in Sections 1.5.2.3, 5.2.2.2, 5.4.2.1, 5.5.2.3, and the Executive Summary has been modified and supplemented to include information on the current and future use of the Mt-28N substation location.

### Comment 96-2

Thank you for your comment. It has been noted and included in the record for this EIS.

### Comment 96-3

Thank you for your comment. It has been noted and included in the record for this EIS.

### Comment 96-4

Thank you for your comment. It has been noted and included in the record for this EIS.

### Comment 96-5

Text in Sections 1.5.2.4, 5.1.1, 5.1.2.2, 5.2.2.2, 5.4.2.1, 5.5.2.3, 6.1.2, and the Executive Summary has been modified and supplemented to include information on the current and future use of the Mt-28S substation location.

## Commenter 96 – Elizabeth Schmiesing

Bill Storm  
March 10, 2010  
Page 3

96-5

approximately 275 of those spots. The Wells Fargo campus operates under a Travel Demand Management (“TDM”) Plan approved by the City of Minneapolis. Under the TDM Plan, Wells Fargo promotes transit, ride sharing and alternative means of getting to work, such as the use of motorcycles or bicycles. The demand for parking spaces remains high, however. Wells Fargo is currently double-parking cars in its two ramps, the North and South Ramps. The parking lot immediately next to the South Ramp, the lot at issue, is also fully used by Wells Fargo.

96-6

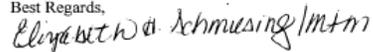
Contrary to information presented in the DEIS, the lot has not been used as a shuttle parking lot for Children’s Hospital since early 2009. The lot is now fully occupied by Wells Fargo employee vehicles during working hours. Wells Fargo’s ability to replace the spaces (and the expansion potential) associated with that parking lot is extremely limited. The South Ramp was designed for expansion, but if ATF Alternative Mt-28S is selected for the Midtown substation site, the expansion space would be occupied by the substation and Wells Fargo could likely not expand the South Ramp as planned. Wells Fargo has an additional parking lot on the other side of the campus, but this ramp, known as the North Ramp, is an older ramp and can’t be expanded. In order to expand parking in the North Ramp area, Wells Fargo would need to demolish the existing ramp and build a new one. Informal estimates of the cost of construction of a new parking ramp are in the range of \$18,000 per stall. This does not include costs of demolishing the old ramp or costs associated with relocating the current users of the ramp and paying for shuttle transportation to the campus for those employees. Side street parking in the area of the campus is already in high demand, and in any event, Wells Fargo discourages its employees from parking on the city streets.

96-7

As noted above, constructing the substation underground at ATF Alternative Mt-28S would likely not mitigate the adverse affects associated with selection of this site because the DEIS does not address whether any structure could be built on the land over an underground substation. As with the potential new office building, the potential expanded South Parking Ramp would require construction of foundations to support the building.

Wells Fargo thanks you for the opportunity to submit these comments and appreciates your consideration.

Best Regards,



Elizabeth H. Schmiesing  
Counsel for Wells Fargo Bank, N.A.

EHS/malmt  
fb.us.4949367.01

## Responses

### Comment 96-6

Text in Sections 1.5.2.4, 5.1.2.2, 5.2.2.2, 5.4.2.1, 5.5.2.3, 6.1.2, and the Executive Summary has been modified and supplemented to include information on the current and future use of the Mt-28S substation location.

### Comment 96-7

Thank you for your comment. It has been noted and included in the record for this EIS.

**Commenter 97 – Joseph Spangler**



85 7th Place East, Suite 500, St. Paul, MN 55101-2198  
main: 651.296.4026 tty: 651.296.2850 fax: 651.297.7891  
www.commerce.state.mn.us

**Public Comment Sheet  
DRAFT EIS  
Xcel Energy Hiawatha HVTL Project  
PUC Docket Number: E002/TL-09-38**

Name: Joseph Spangler Representing: \_\_\_\_\_

Address: 2920-15th Ave So Email: \_\_\_\_\_

Comment: EIS should explore storm water  
tunnel under 29th Street as conduit for  
line. It's 100' deep and >25' in diameter.

Please submit comments to meeting moderator or send to:

William Cole Storm                      Email: bill.storm@state.mn.us  
MDOC                                          Voice: 651-296-9535  
85 7th Place East                          Fax: 651-297-7891  
Suite 500  
St. Paul, MN 55101-2198

**Responses**

**Comment 97-1**

The Applicant has stated that placement of the transmission line within the storm water tunnel is not a feasible alignment.

97-1

Commenter 98 – Jane Thomson

Responses



85 7th Place East, Suite 500 St. Paul, MN 55101-2198  
main: 651.296.4026 fax: 651.297.7891  
www.commentandaction.mn.us



Public Comment Sheet  
DRAFT EIS  
Xcel Energy Hiawatha HVTL Project  
PUC Docket Number: E002/TL-09-38

Name: Jane Thomson

Representing:

Address: 235 Arundel St, #2  
St. Paul, MN 55102

Email: thoms028@tc.umn.edu

*Comment:* <sup>for 13 yrs</sup> Until 1/2 yr. ago, I lived in the Phillips neighborhood. I walked the Greenway regularly, with or without a destination. It was an important getaway. I served on the Greenway Coalition board for 3 yrs. I looked ahead to the streetcar, coming down the trail. What a beautiful ride to that soon! I still look ahead to getting to the trail and the streetcar on the #21A bus, connecting at the Hiawatha transit hub.

The Hiawatha location of the substation would horribly blight the transit hub area and the destination point of the Longfellow-Sabo bridge, where so much beautification has already taken place. As for the lines, they would blight and endanger the Greenway from above; probably cripple streetcar construction, even if buried. I am not convinced that the lines are necessary, but if so they should be buried under 28th or 26th St. I echo those who think that Xcel's missing the opportunity to bury the lines under

Please submit comments to meeting moderator or send to:

William Cole Storm  
MDOC  
85 7th Place East  
Suite 500  
St. Paul, MN 55101-2198

Email: bill.storm@state.mn.us  
Voice: 651-296-9535  
Fax: 651-297-7891

Lake Street when it was torn  
bad planning.

If the above travesties take place, there will be protests. I will definitely be back for these occasions. Sincerely, Jane Thomson

Comment 98-1

Thank you for your comment. It has been noted and included in the record for this EIS.

98-1

## Commenter 99 – Lou Tofte

**From:** [apache@web.lmic.state.mn.us](mailto:apache@web.lmic.state.mn.us)  
**To:** [Storm, Bill \(COMM\)](#)  
**Subject:** Tofte Sun Mar 7 12:10:56 2010 E002/TL-09-38  
**Date:** Sunday, March 07, 2010 12:13:10 PM

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This public comment has been sent via the form at: [www.energyfacilities.puc.state.mn.us/publicComments.html](http://www.energyfacilities.puc.state.mn.us/publicComments.html)

You are receiving it because you are listed as the contact for this project.

Project Name: Xcel Energy Hiawatha 115 kV Transmission Line Project

Docket number: E002/TL-09-38

User Name: Lou Tofte

County: Hennepin County

City: Minneapolis

Email:

Phone:

Impact: My cousins had power lines over their home in rural MN. All of the children (8) got cancer and two of them died. I live in this neighborhood and I'm concerned about the children who live here.

Mitigation: Please bury the lines and the substations.

Submission date: Sun Mar 7 12:10:56 2010

This information has also been entered into a centralized database for future analysis.

For questions about the database or the functioning of this tool, contact:

Andrew Koebrick  
[andrew.koebrick@state.mn.us](mailto:andrew.koebrick@state.mn.us)

99-1

## Responses

### Comment 99-1

Thank you for your comment. It has been noted and included in the record for this EIS.

## Commenter 100 – Brit Tracy

**From:** [apache@web.lmic.state.mn.us](mailto:apache@web.lmic.state.mn.us)  
**To:** [Storm, Bill \(COMM\)](#)  
**Subject:** Tracy Tue Mar 2 14:36:08 2010 E002/TL-09-38  
**Date:** Tuesday, March 02, 2010 2:36:30 PM

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This public comment has been sent via the form at: [www.energyfacilities.puc.state.mn.us/publicComments.html](http://www.energyfacilities.puc.state.mn.us/publicComments.html)

You are receiving it because you are listed as the contact for this project.

Project Name: Xcel Energy Hiawatha 115 kV Transmission Line Project

Docket number: E002/TL-09-38

User Name: Brit Tracy

County:

City: Minneapolis

Email:

Phone:

Impact: Seeing as them neighborhood is already faced with arsenic drift, lead dust and air pollution from the downtown burner I think a better environmental solution for the neighboring families- especially the children, would be to bury the voltage lines underground, thus bypassing the excess pollution.

Mitigation: As I mentioned above place the lines underground,

Submission date: Tue Mar 2 14:36:08 2010

This information has also been entered into a centralized database for future analysis.

For questions about the database or the functioning of this tool, contact:

Andrew Koebrick  
[andrew.koebrick@state.mn.us](mailto:andrew.koebrick@state.mn.us)

## Responses

### Comment 100-1

Thank you for your comment. It has been noted and included in the record for this EIS.

100-1

## Commenter 101 – Ralph Watkins

**From:** [apache@web.lmic.state.mn.us](mailto:apache@web.lmic.state.mn.us)  
**To:** [Storm, Bill \(COMM\)](#)  
**Subject:** Watkins Sun Feb 28 10:26:19 2010 E002/TL-09-38  
**Date:** Sunday, February 28, 2010 10:26:45 AM

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This public comment has been sent via the form at: [www.energyfacilities.puc.state.mn.us/publicComments.html](http://www.energyfacilities.puc.state.mn.us/publicComments.html)

You are receiving it because you are listed as the contact for this project.

Project Name: Xcel Energy Hiawatha 115 kV Transmission Line Project

Docket number: E002/TL-09-38

User Name: Ralph Watkins

County: Hennepin County

City: Minneapolis

Email: [watkinsrh@aol.com](mailto:watkinsrh@aol.com)

Phone: 612-285-7171

Impact: I strongly favor an underground line instead of overhead. Reasons: possible disease cause with above ground, visibility is improved with underground lines, and a precedent is set when we do the cheaper system.

Mitigation:

Submission date: Sun Feb 28 10:26:19 2010

This information has also been entered into a centralized database for future analysis.

For questions about the database or the functioning of this tool, contact:

Andrew Koebrick  
[andrew.koebrick@state.mn.us](mailto:andrew.koebrick@state.mn.us)

101-1

## Responses

### Comment 101-1

Thank you for your comment. It has been noted and included in the record for this EIS.

## Commenter 102 – David West

**From:** [apache@web.lmic.state.mn.us](mailto:apache@web.lmic.state.mn.us)  
**To:** [Storm, Bill \(COMM\)](#)  
**Subject:** West Tue Mar 9 22:35:24 2010 E002/TL-09-38  
**Date:** Tuesday, March 09, 2010 10:35:34 PM

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This public comment has been sent via the form at: [www.energyfacilities.puc.state.mn.us/publicComments.html](http://www.energyfacilities.puc.state.mn.us/publicComments.html)

You are receiving it because you are listed as the contact for this project.

Project Name: Xcel Energy Hiawatha 115 kV Transmission Line Project

Docket number: E002/TL-09-38

User Name: David West

County:

City: Minneapolis

Email:

Phone:

Impact: As I understand it one of the proposals involves running the powerlines over the Midtown Greenway. This is a greenway that the community fought hard for. Its intended use is as urban green space. I myself often bike to work on it. It's unhealthy and unsightly to hang power lines over it. This will diminish our quality of life.

Mitigation: Bury it.

Submission date: Tue Mar 9 22:35:24 2010

This information has also been entered into a centralized database for future analysis.

For questions about the database or the functioning of this tool, contact:

Andrew Koebrick  
[andrew.koebrick@state.mn.us](mailto:andrew.koebrick@state.mn.us)

102-1

## Responses

### Comment 102-1

Thank you for your comment. It has been noted and included in the record for this EIS.

## Commenter 103 – Miriam West

**From:** [apache@web.lmic.state.mn.us](mailto:apache@web.lmic.state.mn.us)  
**To:** [Storm, Bill \(COMM\)](#)  
**Subject:** West Tue Mar 9 22:58:22 2010 E002/TL-09-38  
**Date:** Tuesday, March 09, 2010 10:59:05 PM

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This public comment has been sent via the form at: [www.energyfacilities.puc.state.mn.us/publicComments.html](http://www.energyfacilities.puc.state.mn.us/publicComments.html)

You are receiving it because you are listed as the contact for this project.

Project Name: Xcel Energy Hiawatha 115 kV Transmission Line Project

Docket number: E002/TL-09-38

User Name: Miriam West

County: Hennepin County

City: Minneapolis

Email: [mwest@visi.com](mailto:mwest@visi.com)

Phone: 612 7217299

103-1

Impact: Hello Mr. Storm, it was good to meet you at the public meeting. I'm extremely concerned about the negative impact posed by the high voltage power lines in the Midtown neighborhood. This neighborhood already deals with arsenic drift, lead in the soil & air pollution from the DT burner. That's enough negative environmental risks for the many children in this low income neighborhood.

103-2

My child plays soccer right off the Greenway and bikes it to go to school. Our school recently started a major initiative to get children to bike/walk to school to curb childhood obesity and the Greenway has been advocated as a safe route. Putting overhead lines there with its link to childhood leukemia is the LAST thing we need. The neighborhood in question is way too densely populated. I'm also concerned that if this goes through, the route to the river & west to the lakes would be Xcel's next goal impacting hundreds more people.

103-3

Mitigation: The greenway is an important public space that took years to come

## Responses

### Comment 103-1

Thank you for your comment. It has been noted and included in the record for this EIS.

### Comment 103-2

Thank you for your comment. It has been noted and included in the record for this EIS.

### Comment 103-3

Thank you for your comment. It has been noted and included in the record for this EIS.

### Commenter 103 – Miriam West

103-4

to reality. It needs to be protected. Putting high voltage lines a few blocks away as a mitigation would not help this densely populated neighborhood. The lines and substations need to be buried. While I understand this does not completely address the health impacts it would lessen them, while balancing the need for more power.

103-5

I personally think that this is a neighborhood that would be open to reducing power requirements, though Allina and the hospitals may not be able to do that very easily. Please bury the lines and substations in the current plan and require Xcel to reveal all its plans for future expansion in the area. This cost should be spread over a wide group of customers to avoid hitting this low income neighborhood disproportionately. Thank you.

Submission date: Tue Mar 9 22:58:22 2010

This information has also been entered into a centralized database for future analysis.

For questions about the database or the functioning of this tool, contact:

Andrew Koebrick  
andrew.koebrick@state.mn.us

### Responses

#### Comment 103-4

Thank you for your comment. It has been noted and included in the record for this EIS.

#### Comment 103-5

Thank you for your comment. It has been noted and included in the record for this EIS.

## Commenter 104 – David Woolley

**From:** [David R. Woolley](#)  
**To:** [Storm, Bill \(COMM\)](#)  
**Subject:** Xcel Hiawatha Project  
**Date:** Wednesday, March 10, 2010 10:28:15 AM

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104-1

The Midtown Greenway is a shining example of what makes Minneapolis a wonderful place to live and work. It needs to be protected from developments like the proposed X-cel power lines that would degrade its usability and appearance.

David R. Woolley  
3144 10th Ave South  
Minneapolis, MN 55407

## Responses

### Comment 104-1

Thank you for your comment. It has been noted and included in the record for this EIS.

## Commenter 105 – Vincent Wyckoff

**From:** [apache@web.lmic.state.mn.us](mailto:apache@web.lmic.state.mn.us)  
**To:** [Storm, Bill \(COMM\)](#)  
**Subject:** Wyckoff Tue Mar 2 16:47:00 2010 E002/TL-09-38  
**Date:** Tuesday, March 02, 2010 4:47:34 PM

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This public comment has been sent via the form at: [www.energyfacilities.puc.state.mn.us/publicComments.html](http://www.energyfacilities.puc.state.mn.us/publicComments.html)

You are receiving it because you are listed as the contact for this project.

Project Name: Xcel Energy Hiawatha 115 kV Transmission Line Project

Docket number: E002/TL-09-38

User Name: Vincent Wyckoff

County:

City: Minneapolis

Email:

Phone:

Impact: Considering all the work put into beautifying the Greenway by local residents, and the fact that just a few years ago the area was a blighted eyesore, running high voltage power lines along the Greenway is the wrong thing to do. Bury the lines. You have an open area in which to work, it's a straight shot, and you'd build some much-needed PR by doing this the right way. Nine months of the year I use the Greenway, and I've enjoyed watching the ownership residents have put into taking care of it and protecting it from crime. Please don't interfere with overhead sight-lines. There's enough noise and chemical pollution there now, don't add to it.

Thank you

Mitigation:

Submission date: Tue Mar 2 16:47:00 2010

This information has also been entered into a centralized database for future analysis.

## Responses

### Comment 105-1

Thank you for your comment. It has been noted and included in the record for this EIS.

105-1

## Commenter 106 – Xcel Energy



March 10, 2010

### VIA ELECTRONIC FILING AND U.S. MAIL

Bill Storm  
Office of Energy Security  
85 7<sup>th</sup> Place East, Suite 500  
St. Paul, MN 55101-2198

**Re:** *In the Matter of the Application for a High Voltage Transmission Line Route Permit for the Hiawatha Transmission Project*  
MPUC Docket No.: E-002/TL-09-38  
OAH Docket No.: 15-2500-20599-2

Dear Mr. Storm:

Northern States Power Company, a Minnesota corporation ("Xcel Energy" or the "Applicant"), submits the following comments regarding the Draft Environmental Impact Statement ("DEIS") issued by the Department of Commerce Office of Energy Security ("OES") on January 8, 2010 for the Hiawatha 115 kV Transmission Line Project ("Project"). Xcel Energy has reviewed the DEIS and commends the thorough and comprehensive nature of the DEIS. Xcel Energy appreciates the time and effort that OES staff put into preparing the DEIS.

Xcel Energy provides the following suggestions regarding additional information or corrections that would be appropriate to supplement in the Final EIS.

#### **A. Route Width for Route A**

In the Route Permit Application, Xcel Energy requested a route width of 125 feet for Route A, Alignment A1 and Alignment A2. After the filing of the Application, at the request of Hennepin County, Xcel Energy evaluated a third alignment for Route A, Alignment A3, which is located along the bottom of the Midtown Greenway. To accommodate this new alignment, Xcel Energy is now requesting a route width of 200 feet be authorized if Route A is selected. As a result, Xcel Energy requests that the Final EIS evaluate the environmental impacts of this expanded route width. A map showing the revised route width is enclosed as **Attachment 1**.

## Responses

### **Comment 106-1**

Text throughout the EIS has been modified and supplemented to include information on the revised width of Route A as 200 feet and potential Alignments A1, A2, and A3.

106-1

## Commenter 106 – Xcel Energy

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Page 2

### B. Route Preference and Alignment Preference

**106-2** Several places in the DEIS state that Xcel Energy has asserted a preference for the overhead design along Route A or for a particular route alignment for Routes A-D. See, e.g. DEIS at pp. 36-38, 98. Xcel Energy notes that while Route A is its preferred route, Xcel Energy has not stated a preference for a particular design option (overhead or underground). As noted in my direct testimony, the overhead and underground design options have different associated impacts that must be analyzed and considered by the Minnesota Public Utilities Commission ("Commission") in reaching its conclusion regarding the most appropriate route and how costs for the Project will be allocated.

**106-3** In addition, Xcel Energy has not stated a preference for a particular alignment along Route A, Route B, Route C or Route E2. Xcel Energy has instead requested a route width of 200 feet for Route A, a route width of 80 feet for Routes B and C and a route width of 970 feet for Route E2 and provided potential alignments. Following issuance of the Route Permit by the Commission, Xcel Energy intends to work with landowners, government entities and other stakeholders to determine the final alignment for the Project. With regard to Route D, Xcel Energy prefers an alignment along the north side of 28<sup>th</sup> Street. This preference will be asserted as part of Xcel Energy's rebuttal testimony.

### C. Substations

**106-4** The DEIS states on page 73 that a "seven foot high perimeter fence" will surround both the proposed Hiawatha and Midtown substations. Since the filing of the Application, Xcel Energy has refined its proposals for the substations. The current proposal at Midtown Substation is a 20-foot wall on all sides. The current proposal at the Hiawatha Substation is a 12-foot wall on all sides. Each substation would also have two access gates.

#### 1. Hiawatha Substation Sites

**106-5** The DEIS states that the Hiawatha East Substation site will require removal of "[n]ew trees planted on Arbor Day 2008 and 2009 by neighborhood groups." DEIS at p. 24. Xcel Energy notes that the Hiawatha East Substation location would not require removal of any trees planted by neighborhood groups.

**106-6** Section 7.2 of the DEIS discusses the five alternative Hiawatha Substation sites proposed by the Advisory Task Force ("ATF"). This discussion was aided by Xcel Energy's analysis of these sites contained in the November 2009 document entitled "Technical Feasibility of ATF Substations." Since November 2009, Xcel Energy has conducted additional analysis regarding the suitability of substation sites, including using non typical designs, equipment and layouts, in response to information requests received from other parties to this proceeding. Attached are copies of responses to information requests that reflect this further analysis. **Attachment 2** (Xcel Energy's Responses to City of Minneapolis IR Nos. 14 and 15 and Xcel Energy's Response

## Responses

### Comment 106-2

Text in Sections 1.4 and 1.8 has been modified to note that Route A is the Applicant's preferred route, rather than the overhead Route A1 alignment as the preferred route. Throughout the EIS, the previous discussion of "preferred" alignments has been edited to "potential" alignments, with the exception of Route D, for which the Applicant has stated a preferred alignment.

### Comment 106-3

Throughout the EIS, the previous discussion of "preferred" alignments has been edited to "potential" alignments, with the exception of Route D, for which the Applicant has stated a preferred alignment.

### Comment 106-4

Text in Sections 3.3.1.1, 3.3.1.2, 3.3.1.3, 5.8.2.2, and the Executive Summary has been modified to include the proposed heights of the substation walls.

### Comment 106-5

Text in Sections 5.10.2.2 and the Executive Summary has been modified to note that Arbor Day tree plantings could be removed at the Hiawatha West Substation site, rather than the Hiawatha East Substation site.

### Comment 106-6

Text in Sections 1.5 and 7.2 has been modified and supplemented to include information on the feasibility of the Hiawatha substation alternatives proposed by the ATF.

## Commenter 106 – Xcel Energy

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- 106-6** | to Midtown Greenway Coalition IR No. 25). Xcel Energy requests that the Final EIS be updated to reflect the most recent analysis regarding the feasibility of alternate substitution sites.
2. Midtown Substation Sites
- 106-7** | Xcel Energy notes that property information regarding two of the Midtown Substation alternative sites should be clarified. The DEIS states that Mt-28N and Mt-28S are located on vacant property. DEIS at pp. 7, 46 and 47. Mt-28N is located on private green space owned by Wells Fargo and Mt-28S is located on a parking lot owned by Wells Fargo.
- 106-8** | Page 13 of the DEIS states that Applicant has proposed low-profile designs for both the Hiawatha Substation and the Midtown Substation. Xcel Energy requests that the Final EIS clarify that Xcel Energy has only proposed a low-profile design for the Hiawatha West and Hiawatha East substation sites and the Midtown South substation site. The Midtown North substation site is proposed to be a high-profile design.
3. Underground Substation Cost Study
- 106-9** | Appendix D of the DEIS includes a copy of the "Hiawatha Underground Substation Study Paper" prepared by Sargent & Lundy. References to this study are found throughout the DEIS. *See e.g.* pp. 48 and 75. For purposes of clarity, Xcel Energy requests that the Final EIS note that this study only assessed the costs associated with constructing the Hiawatha Substation underground at the Hiawatha West site. This cost study did not assess the feasibility of constructing an underground substation at the Hiawatha West site or any other proposed site. A determination of feasibility would require investigation into water table depths, soil stability and other factors.
- D. Electric and Magnetic Fields**
- 106-10** | Page 22 of the DEIS provides electric field measurements for Routes A and D, underground construction. As noted in the direct testimony of Benjamin Gallay, the electric field measurements from the center of the transmission line to 200 feet from the center of the right-of-way should have zero electric fields for underground construction. This is because electric fields are contained within the duct banks of the underground systems. *See* Direct Testimony of Benjamin Gallay at p. 3. Xcel Energy requests that the Final EIS include these updated electric field calculations.
- 106-11** | Table 5.6-4 of the DEIS, page 248, includes magnetic field calculations for the proposed transmission lines that were based, in part, on information provided in Table 8 of the Application. Xcel Energy notes that in both tables, the calculations for Routes A and D for the two different underground cable types were transposed. These calculations should be: 19.67 for the 3000 kcmil conductor (peak), 11.80 for the 3000 conductor (average), 13.08 for the 1250 kcmil conductor (peak), and 7.85 for the 1250 kcmil conductor (average).

## Responses

### Comment 106-7

Text in Sections 1.5.2.3, 1.5.2.4, 5.1.1, 5.1.2.2, 5.2.2.2, 5.4.2.1, 5.5.2.3, 6.1.2 and the Executive Summary has been modified and supplemented to include information on the current use of the Mt-28N and Mt-28S substation locations.

### Comment 106-8

Text has been edited in Sections 5.4.2.2 and 5.8.2.2 to correct the noted error.

### Comment 106-9

Text in Sections 1.5, 1.5.3, 3.4, 4.2.2, and the Executive Summary has been modified to reflect the correct purpose of the Sargent & Lundy study.

### Comment 106-10

Text in Section 5.6.2.2 and Table 5.6-5 (formerly Table 5.6-3) has been modified with the revised information on calculated electric fields.

### Comment 106-11

Text in Section 5.6.2.2 and Table 5.6-7 (formerly Table 5.6-4) has been modified with the revised information on calculated magnetic fields.

## Commenter 106 – Xcel Energy

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106-12

In addition, since the filing of the Application, Xcel Energy has updated its magnetic field calculations in response to an information request. Attached is a copy of this information request response. **Attachment 3** (Xcel Energy's Response to Midtown Greenway Coalition IR No. 30). These revised calculations reflect updated cable information and default ground conditions. It should be noted that the calculations contained in Table 3 of this response for Route A (underground) apply to both Alignment A2 and Alignment A3.

### E. Cost Allocation

106-13

Section 1.8 of the DEIS discusses Project costs and illustrates rate impact calculations based on allocating the incremental cost between overhead and underground design across multiple customer population using the City Requested Special Facility Surcharge ("CRFS") rates. Xcel Energy notes that the CRFS mechanism has only been used for underground distribution special facilities. Moreover, the cost allocation estimates provided in the DEIS are based on Xcel Energy's August 2009 response to an information request from the Commission. Xcel Energy provided updated cost information in the direct testimony and schedules 7 and 8 of Paul Lehman. Xcel Energy requests the Final EIS be updated to reflect these additional cost allocation scenarios.

### F. Vegetation Management

106-14

Pages 10 and 11 of the DEIS state that each of the proposed routes will involve tree trimming. Xcel Energy asks that the Final EIS clarify that all of the overhead routes, with the exception of Route C, have existing distribution lines along the entire route. As a result, trees along these routes are already trimmed at a lower height than what would be required for the proposed overhead transmission lines.

106-15

The DEIS, at page 195, asserts that along Route D, 34 trees would be removed from the south-exposed side of the street. As the final alignment for all of the proposed routes is yet to be determined, Xcel Energy suggests that the Final EIS note that 34 trees could be removed along Route D, depending on the final alignment of the proposed transmission lines.

106-16

Pages 179 and 180 of the DEIS lists 14 community gardens that are located within the vicinity of the proposed routes. To help assess the proposed routes' impacts on these gardens, Xcel Energy suggests that the Final EIS identify which routes may impact each particular garden.

### G. Pole Placement and Distribution Lines

106-17

The DEIS states that for Routes B and C, "the majority of pole structures would be placed on existing paved surfaces." *See, e.g.,* DEIS at p. 67. Xcel Energy requests that the Final EIS reflect Xcel Energy's intent to place poles adjacent to, not on, paved surfaces, where possible. There may be circumstances where the paved surfaces may need to be extended away from the

## Responses

### Comment 106-12

Text in Section 5.6.2.2 and Table 5.6-7 (formerly Table 5.6-4) has been modified with the revised information on calculated magnetic fields.

### Comment 106-13

Tables 1-3 through 1-6 have been modified with updated cost allocation estimates provided in the testimony of Paul Lehman.

### Comment 106-14

Text in Sections 5.4.2.3 and the Executive Summary has been modified and supplemented with information on the trimming of trees for existing distribution lines.

### Comment 106-15

Text in Sections 5.4.2.3 and 5.10.2.1 has been modified to note that the number of trees removed would depend on final structure placement.

### Comment 106-16

Text in Section 5.4.1.3 has been modified to include information on which community gardens are located in proximity to route alternatives.

### Comment 106-17

Text in Section 3.1.1 has been modified to note that structures would be placed adjacent to paved surfaces where possible. Text in Sections 5.6.1.7 and 5.6.2.7 has been modified and supplemented to include information on the Americans with Disabilities Act.

## Commenter 106 – Xcel Energy

Bill Storm  
March 10, 2010  
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106-17 | street and the poles may need to be placed in the outer edge of those surfaces to meet Americans with Disabilities Act requirements.

106-18 | The DEIS notes that some overhead routes require moving existing distribution lines underground. Xcel Energy asks that the Final EIS clarify that none of the route alternatives requires moving existing distribution lines underground.

### H. Appraisal Fees

106-19 | As stated in my direct testimony, appraisal fee information provided on page 50 of the Route Permit Application and on page 81 of the DEIS needs to be updated. First, the Application erroneously states that when a landowner obtains an appraisal during the right-of-way acquisition process, the landowner is entitled to be reimbursed up to \$500 toward the appraiser fee as long as the appraisal follows standard and accepted appraisal practices. This section should have stated that the court-appointed Commissioners are authorized to award appraisal fees in the condemnation process. See Minnesota Statutes § 117.189. In addition, after the Application was filed, the statute governing appraisal reimbursement, Minnesota Statutes § 117.189, was amended to allow Commissioners to award up to \$3,000 for appraisal fees if the property is being acquired for a high voltage transmission line.

Thank you for considering our comments. Please contact me at 612-330-6512 if you have any questions regarding this letter.

Sincerely,

/RaeLynn Asah  
RaeLynn Asah

LMA/dba  
Attachments

cc: Service List

## Responses

### Comment 106-18

Text has been edited in Sections 1.4.1, 5.8.2.1, 5.8.3, 6.2, and the Executive Summary to correct the information on existing distribution lines.

### Comment 106-19

Text has been edited in Section 4.3 to note the correct appraisal information.

## Commenter 106 – Xcel Energy

*In the Matter of the Application for a High  
Voltage Transmission Line Route Permit  
for the Hiawatha Transmission Project*

**CERTIFICATE OF SERVICE**  
MPUC Docket No. E-002/TL-09-38  
OAH Docket No. 15-2500-20599-2

Diane Bailey-Andersen certifies that on the 10th day of March 2010, she filed a true and correct copy of an **Xcel Energy DEIS Comment Letter** by posting it on [www.edockets.state.mn.us](http://www.edockets.state.mn.us). Said document was also sent via U.S. Mail as designated on the Official Service List on file with the Minnesota Public Utilities Commission.

*/s/ Diane Bailey-Andersen*  
Diane Bailey-Andersen

## Responses