

Direct Testimony and Schedules
Tim Springer

**STATE OF MINNESOTA
OFFICE OF ADMINISTRATIVE HEARINGS
FOR THE PUBLIC UTILITIES COMMISSION**

IN THE MATTER OF THE APPLICATION
FOR A HIGH VOLTAGE TRANSMISSION
LINE ROUTE PERMIT FOR THE HIAWATHA
TRANSMISSION PROJECT

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

**TESTIMONY OF
TIM SPRINGER**

On Behalf of
INTERVENOR
MIDTOWN GREENWAY COALITION

February 18, 2010

Exhibit _____

1 **I. INTRODUCTION AND BACKGROUND**

2 **Q. Please state your name and business address.**

3 A. My name is Tim Springer and my business address is Midtown Greenway
4 Coalition 2834 10th Avenue South, Greenway Level, Suite 2 Minneapolis, MN 55407

5 **Q. By whom are you employed and what is your position?**

6 A. I am the Executive Director of the Midtown Greenway Coalition, a small non-
7 profit organization with a seat on its board for each of the 17 neighborhoods along the
8 Lake Street/Midtown Greenway Corridor, and four at-large seats.

9 **Q. Could you briefly describe the Midtown Greenway Coalition?**

10 The mission of the Midtown Greenway Coalition is focused on surrounding
11 communities as well as the Greenway: “We empower communities to develop, improve,
12 protect, and enjoy the Midtown Greenway as a green urban pathway to improve people's
13 lives.”

14 The Coalition focuses on the value of the greenway for transportation, health, and
15 community development: “We envision a green urban pathway that: Provides the anchor
16 for a regional, sustainable transportation network; and encourages healthy diverse
17 communities to prosper, participate, and connect to the region.” Our vision for the
18 Midtown Greenway includes: all-season, fast, safe, and pleasant walking, biking and
19 rolling; vibrant sustainable green spaces and plazas with opportunities for public art;
20 Greenway edges that offer access, safety, new public parks, and economic opportunities;
21 and development of transit along the Greenway.

22 In 1992, the Midtown Greenway Coalition began meeting as a collection of
23 interested individuals advocating for the creation of bicycling and walking trails in the

1 29th Street railroad corridor. From the beginning, the Midtown Greenway Coalition has
2 played a key role in advancing the vision of the 29th Street Midtown Greenway Corridor
3 Master Plan, which was adopted by the Hennepin County Regional Railroad Authority
4 (HCRRA) and City of Minneapolis Department of Public Works in July 1996. The
5 Midtown Greenway Master Plan is attached as *Schedule 1* to my testimony.

6 **Q. What is your background and experience with the Midtown Greenway**
7 **Coalition?**

8 A. My formal education is a Master of Arts in Energy and Resources from the
9 University of California, Berkeley. This is an interdisciplinary program combining
10 sociology, environmental studies, economics, and technology. From 1990 to 1995, I
11 worked as an environmental consultant, planning and implementing public education
12 campaigns, managing programs, and measuring results, with a primary focus on
13 sustainability and reducing solid waste generation.

14 I've been involved with the Midtown Greenway Coalition since the project's
15 inception in 1992, first as a co-founder and volunteer and then as paid staff. I use my
16 bicycle for transportation year-round and ride the Greenway several times each day; I do
17 not own a car. I also live in the East Phillips neighborhood of Minneapolis and am very
18 involved with the efforts of my neighborhood and other South Minneapolis communities
19 to accomplish economic and community development, transportation and transit and
20 environmental sustainability goals. In my role as Executive Director of the Coalition, I
21 work collaboratively with each of the communities adjacent to the Greenway to ensure
22 that our work reflects their land use planning and enhances recreation, community
23 development and environmental sustainability goals.

1 **II. SUMMARY OF RECOMMENDATIONS**

2 **Q. Could you summarize your recommendations regarding the proposed**

3 **Hiawatha project transmission lines and substations?**

4 A. Based on the work of the Midtown Greenway Coalition Board, positions taken by
5 communities that are represented on our Board and the information received to date from
6 Xcel Energy in their Application for a route permit and in responses to information
7 requests, my recommendations are as follows:

8 1. Applicant’s Hiawatha Project 115 kV overhead Route A on the Midtown
9 Greenway should be rejected. This overhead route would conflict with the transportation,
10 recreation, land use and the historic nature of the Midtown Greenway, impair the only
11 park-like space in this South Minneapolis community, create adverse visual impacts,
12 reduce the potential for planned residential development and may create an unacceptable
13 health risk to nearby residents from magnetic fields as well as negative perceptions that
14 undermine marketing of development. The City of Minneapolis, the Hennepin County
15 Regional Rail Authority (HCRRA) and all of the surrounding communities have formally
16 determined that an overhead route on the Greenway is unacceptable.

17 2. Applicant’s Route A underground alternative for the 115 kV line on the south
18 shoulder of the Greenway on 29th Street should also be rejected. Construction of this
19 route has too great a potential to conflict with planning for light rail or streetcar transit for
20 the corridor, along with platforms and other multi-modal amenities. The need to repair or
21 rebuild historic bridges in the Greenway corridor adds another concern for any
22 underground route in the Midtown Greenway.

23 3. The third Midtown Greenway route proposed by Applicant in responses to

1 information requests, which would run underground in the trench where the bicycle trails
2 are located, should also be rejected. The trench is very narrow and the high voltage line
3 centerline would run directly beneath the bicycle and pedestrian trails for a significant
4 portion of the route. Transit and bridge construction may require use of this portion of the
5 narrow Greenway corridor. Construction would disrupt trail use and magnetic fields
6 could create adverse health effects and negative perceptions of safety that would
7 undermine trail usage. In addition to the Midtown Greenway Coalition, almost every
8 community along the Greenway is opposed to any power line route on the Midtown
9 Greenway, whether overhead or underground.

10 4. No overhead route through any of the surrounding communities is acceptable
11 due to conflicts with land use and scale, impacts on historical buildings, magnetic field
12 exposures and the risk of economic disinvestment and environmental injustice in the low-
13 income and diverse communities adjacent to the Midtown Greenway. The Midtown
14 Greenway Coalition, every surrounding neighborhood, the City of Minneapolis, the
15 HCRRA and various developers with investments in the community oppose overhead
16 power line routing of the Hiawatha transmission project.

17 5. The Hiawatha transmission route that the Midtown Greenway Coalition, the
18 City of Minneapolis and communities along the Greenway, including communities that
19 would be affected by the route find least objectionable if the project must be built is
20 Route D, underground on 28th Street. The transmission line should be aligned in the
21 center of the street, rather than on the sidewalk, to avoid destroying trees and to place the
22 high voltage line farther from homes.

23 6. The Hiawatha West substation preferred by Xcel Energy was evaluated by

1 impacted neighborhoods as unacceptable. It would eliminate the only green space area
2 that the Midtown Greenway travels through, a green space already reflecting significant
3 investment by the community. If the G-4 site is feasible, that is the site considered to be
4 acceptable by the most directly affected community. The Midtown Greenway Coalition
5 has not yet had the opportunity to evaluate whether the Zimmer Davis site recently
6 proposed by Xcel in discovery responses to the Longfellow Community Council as a
7 priority substation site could be acceptable with an appropriate footprint and mitigation.

8 7. Although the Midtown Greenway Coalition is not currently advocating for a
9 specific alternative location for the Midtown Substation, we believe that Xcel Energy's
10 current proposal for the North Midtown Substation creates an industrial-style land use
11 adjacent to the Greenway in a residential neighborhood and is not consistent with the
12 principles for future development in the Midtown Greenway corridor.

13 8. The Midtown Greenway Coalition believes that all costs of routing the
14 Hiawatha transmission line on Route D should be borne by Xcel Energy's rate base,
15 following Xcel Energy's consistent prior practice in handling costs for underground
16 transmission and due to the fact that no overhead route is feasible.

17 9. There is widespread concern among the members of the Midtown Greenway
18 Coalition that the Hiawatha 115 kV project is not needed and that neither the potential for
19 distributed generation nor conservation was adequately considered by Xcel Energy.

20 Studies provided by Xcel in discovery show that Xcel has planned both to run a 345 kV
21 power line along Hiawatha Avenue and to enlarge the proposed Hiawatha substation in
22 the near future. This plan may or may not be delayed for now. Any route permit granted
23 for the Hiawatha project should include conditions requiring Xcel to invest in distributed

1 generation and conservation throughout South Minneapolis to defer or eliminate the
2 future need to increase the capacity of transmission lines on Hiawatha or to expand the
3 footprint of the Hiawatha Substation beyond what is needed for this 115 kV power line.

4 **III. MIDTOWN GREENWAY DEVELOPMENT, PLANNING & HISTORY**

5 **Q. What is the Midtown Greenway?**

6 A. The Midtown Greenway is a 5.5-mile-long biking and walking trail through an
7 old railroad corridor that runs east to west across Minneapolis parallel to, and for the
8 most part one block north of, Lake Street. The Greenway connects with other trails
9 around the Minneapolis Chain of Lakes near the City's western border, and with a
10 bikeway on the West River Road along the Mississippi River to the east. A schematic
11 map of the Greenway is attached as *Schedule 2*.

12 In keeping with its purpose as a bicycle transportation corridor, the Greenway is
13 lit at night, plowed in the winter, and open all day every day. Except where spatial
14 constraints dictate otherwise, the east-bound and west-bound biking lanes are each seven
15 feet wide and the pedestrian path is six feet wide, allowing for simultaneous safe use of
16 the trails by both east- and west-bound bicycle traffic, walkers and runners.

17 The western section of the trails from Chowen Avenue South to 5th Avenue South
18 opened in year 2000. The middle section east to Hiawatha Avenue opened fully in 2005.
19 The east section to the Mississippi River opened in 2006.

20 **Q. What was the area now used for the Midtown Greenway like before the**
21 **Greenway was built?**

22 A. Before the Midtown Greenway was developed, the area was an abandoned
23 railroad right-of-way, with garbage strewn on the embankments and in the trench. The

1 corridor detracted from the surrounding neighborhoods, property values and development
2 potential and gave the impression of neglect and a lack of safety. The photographs in
3 *Schedule 3* show the railroad right-of-way before development of the Greenway, a
4 section of construction and the current Midtown Greenway from an aerial view and from
5 the perspective of trail users.

6 **Q. What is the history of planning for development of the Midtown Greenway?**

7 A. In 1992, citizens, neighborhood organizations and local elected officials began
8 organizing to increase awareness of the potential of the Midtown Greenway Corridor.
9 They held walking tours, clean-up events, bicycling tours, picnics and an inter-
10 neighborhood visioning conference. From the beginning, planning for the Midtown
11 Greenway Corridor has been a collaboration among the neighbors of the Greenway, the
12 City of Minneapolis, Hennepin County and the Hennepin County Regional Rail
13 Authority (“HCRRA”).

14 In 1993, taking advantage of federal monies made available by the Intermodal
15 Surface Transportation Efficiency Act of 1991 (ISTEA), the Public Works Department
16 for the City of Minneapolis proposed a system of on and off-road commuter bicycle
17 facilities, which included the Midtown Greenway. In 1995 the City of Minneapolis
18 adopted its Five Year Bicycle Transportation Plan, which called for creation of the
19 Midtown Greenway in the 29th Street corridor. In July 1996, the HCRRA and the
20 Minneapolis Public Works Department jointly released the Greenway Master Plan.
21 Portions of the Greenway Master Plan quoted below highlight key plans for the
22 Greenway:

23 “The 29th Street Midtown Greenway project will provide the ‘missing link’ in a

1 century-old concept of connecting the lakes to the river. It will promote an
2 alternative to automobile transportation by transforming the 29th rail corridor into
3 a fast, safe, barrier-free bicycling, skating and walking trails while keeping space
4 available for future LRT. In addition to being a bicycle facility, the Greenway will
5 also create opportunities for: additional open space and provide connections to
6 local open space and regional existing and future open space recreation, in and of
7 itself, as well as connections to existing and future trails connections to regional
8 transportation systems, bicycle and light rail transit connections to neighborhood
9 amenities, including commercial and business nodes increasing neighborhood
10 livability through providing an attractive, safe amenity and bringing new activity
11 into the corridor and space adjacent to it.” (Greenway Master Plan, *Schedule 1*, p.
12 x-1)

13 “As a first stage of transportation development, a two-way recreational and
14 commuting bicycle facility will be developed within the corridor. The Greenway
15 will also create opportunities for open space, public art and connections to
16 neighborhood amenities and other recreational opportunities. The Midtown
17 Greenway will also be a community resource, providing a sense of place that
18 strengthens community identity and community pride, as well as promoting
19 conservation and improving the visual environment. It will provide a connecting
20 link to neighborhood parks, schools and open spaces along its route. The Midtown
21 Greenway has the potential to regenerate adjacent neighborhoods and spur new
22 economic development along its rim and nearby Lake Street.” (Greenway Master
23 Plan, *Schedule 1*, pp. 1-1 to 1-2)

1 **Q. What public investments have been made in the Midtown Greenway?**

2 A. In 1992, the section of the Midtown Greenway that lies west of Hiawatha Avenue
3 (approximately 4.2 miles) was purchased by the HCRRA for \$9.3 million; this was Phase
4 I and Phase II of the land acquisition. Another 1.3 miles were purchased by the HCRRA
5 for \$1 million, with a total land acquisition cost of \$10.3 million. Public investment for
6 trail engineering and construction, including Hennepin County funds, federal grants
7 under the ISTEA program, federal direct appropriations for the Greenway, and City and
8 State funds has totaled approximately \$18.5 million. An additional \$7.2 million was
9 invested for land acquisition and construction of a new trail entrance at 10th Avenue
10 serving Midtown Exchange. There are also ongoing investments by the City of
11 Minneapolis and Hennepin County for improvements of pavement, lights and vegetation
12 and for maintenance and security.

13 **Q. What plans have been made for future transit and transportation on the**
14 **Midtown Greenway?**

15 A. The Greenway Master Plan anticipates future light rail transit in the Greenway
16 alongside the trails and refers to future station areas with elevators that will increase
17 activity in the Greenway and on 29th Street states. Figure 4-3 on page 4-9 of the Master
18 Plan in *Schedule 1* shows one example of how future rail and the trails might fit into the
19 narrow 100-foot-wide right of way. There has also been extensive discussion of the
20 possibility that modern streetcar transit will be developed along the Midtown Greenway
21 corridor.

22 **Q. What are the implications of this planning for other construction projects on**
23 **the Midtown Greenway?**

1 A. There is a strong commitment to development of transit stations that create public
2 spaces at trail and transit elevations and spur the development of transit-oriented
3 development. The Greenway Master Plan states that the HCCRA requires that minimal
4 construction should occur in the areas that will eventually be occupied by transit. (*See*
5 *Schedule 1*, p. 3-2).

6 The Midtown Greenway Land Use and Development Plan, approved by the City of
7 Minneapolis in 2007 and attached as *Schedule 4* to my testimony recommends expanding
8 the Midtown Greenway laterally through possible acquisition of land at future rail transit
9 station locations and excavating the trench embankment to create public spaces in the
10 Greenway at trail and transit elevation. In the Midtown Greenway Land Use and
11 Development Plan, within the area impacted by the proposed Hiawatha Project, both
12 Bloomington and Chicago are considered as potential transit locations (*See Schedule 4*,
13 pp. 48, 49).

14 The precise configuration of transit, transit stations and transit plazas has not been
15 determined yet, but the Midtown Greenway Coalition has worked with *pro bono*
16 architects to develop a visual concept of a transit plaza. An illustration of the potential for
17 a transit plaza example is attached as *Schedule 5*.

18 **Q. How much is the Midtown Greenway used?**

19 A. Midtown Greenway trails are in use year round. The Midtown Greenway is
20 Minnesota's busiest bikeway. Data from detector loops under the trail pavement show
21 Average Daily Trips in the Greenway above 4,000 for July 2008 as measured at one
22 location on the trail, and a year round average of about 2,000 bicycle trips per day. The
23 trail is also used by pedestrians, year round, who are not counted by the detector loops.

1 **Q. How does Midtown Greenway trail use compare with the use of local streets**
2 **in Minneapolis?**

3 A. I've learned from Minneapolis Public Works staff that most local and residential
4 streets have volumes of less than 2,000 vehicles per day. Average Spring/Summer/Fall
5 counts for the Midtown Greenway exceed 2,000 people per day. The Midtown Greenway
6 sees more use than about two-thirds of the total roadway system and rivals a collector
7 street in function. A typical collector street in Minneapolis carries 2,000 - 10,000
8 vehicles per day. We have seen a handful of days in the past few years where Midtown
9 Greenway trail volumes have exceeded 5,000.

10 **Q. What are plans for future development and amenities along the Midtown**
11 **Greenway?**

12 A. Public agency and community plans for the Greenway include overlooks on
13 adjacent land that can serve as viewing platforms, connections to nearby business nodes,
14 infill of residential development with greater density, walking paths on the rim of the
15 Greenway, public green space adjacent to the Greenway and public art. The principles for
16 Greenway-supportive development are established in the Midtown Greenway Land Use
17 and Development Plan, *Schedule 4*:

- 18 1. Promote a safe, vibrant and active environment with calmed streets and
19 widened sidewalks. Focus investments toward developing an enlivened,
20 pedestrian-friendly public realm.
- 21 2. Encourage redevelopment projects to be transit-supportive by integrating
22 bicycle and pedestrian amenities as well as accessible and visually appealing
23 transit stops into projects.

- 1 3. Promote opportunities for additional public green space, dedicated parks, trail
2 connections and public art along the Greenway edge, especially near transit stops
3 and higher-intensity developments.
- 4 4. Support compact development and promote mixed use in existing commercial
5 areas. Create a more lively and diverse urban environment.
- 6 5. Focus the most intensive development near future transit stops and existing
7 commercial nodes and encourage the provision of open space and active
8 stormwater management in new developments.
- 9 6. Promote development that reinforces appropriate architectural scale and relates
10 to adjacent land uses. Employ development strategies that minimize Greenway
11 shadowing.
- 12 7. Use new development, the pedestrian environment and open space to promote
13 an integrated relationship between the Greenway floor and the Greenway
14 edge/rim, fostering a sense of place and community.
- 15 8. Develop a premier public edge along both sides of the Greenway, including a
16 more pedestrian and bicycle-friendly 29th Street and public promenades.
- 17 9. Promote Greenway safety and comfort through environmental design features
18 such as doors located on the street or Greenway as appropriate, windows facing
19 public space and the relocation of service doors away from the public realm.
- 20 10. Promote compatibility of industrial uses with residential areas and the
21 Greenway through landscaping and enhanced urban design. (Midtown Greenway
22 Land Use and Development Plan, *Schedule 4*, Executive Summary).

23 **Q. What investments have been made to develop green space along the Midtown**

1 **Greenway?**

2 A. On August 24, 2006, the Midtown Greenway Coalition adopted an Open Space
3 Resolution committing the Coalition to advocate for green spaces adjacent to the
4 Midtown Greenway to serve as community gathering spots as well as to enhance the
5 regional green space system and improve amenities for trail users and future transit
6 riders.

7 The MNDOT-owned land east of Hiawatha was identified in planning by the
8 Longfellow Community Council as a priority for conversion from a neglected site to a
9 community green space. This Midtown Greenway Coalition determined that this site
10 provided an opportunity to serve trail goers, nearby businesses, and future residents of
11 transit-oriented housing developments envisioned for the area, as well as surrounding
12 neighborhoods of Longfellow and Seward. The Midtown Community Works Partnership
13 (“MCWP”) was also instrumental in planning, funding and implementation of a
14 community green space on the surplus land owned by MnDOT.

15 Development of the area immediately east of Hiawatha as a green space involved
16 an investment of thousands of hours of community volunteer time as well. The first
17 phase of planting in the area closest to the Sabo Bridge were accomplished in April 2008.
18 On Arbor Day in 2009, the area that Xcel has identified as its preferred location for the
19 Hiawatha West Substation was planted with more than 250 trees and shrubs. *Schedule 6*
20 contains the plans designed by a landscape architect that have guided plantings at the
21 MnDOT Hiawatha site in 2008 and 2009.

22 **Q. What historic designation and constraints apply to the Midtown Greenway?**

23 The Midtown Greenway trench itself has been listed in the National Register of

1 Historic Places (“NRHP”) as a historic district. An important contributing factor is the
2 earthen trench itself, which is retained from the Chicago, Milwaukee & St. Paul Railroad
3 grade separation. This designation is recognized by Xcel Energy in their Application
4 (Appendix E, Cultural Resources Assessment, p. 12) and by the Office of Energy
5 Security in the Draft Environmental Impact Statement (DEIS, pp. 144-145).

6 **Q. Are there other historic features of the Midtown Greenway corridor that create**
7 **particular concerns for future construction?**

8 A. An important concern in considering future construction, such as the development
9 of high voltage power lines, is that the Midtown Greenway is crossed by dozens of
10 bridges, some of which are historical in nature. According to the Midtown Corridor
11 Historic Bridge Study, which is attached as *Schedule 7* to this testimony, there are 26
12 historic bridges crossing the Midtown Greenway Corridor. Thirteen of the 15 publicly-
13 owned bridges in the area that would be impacted by Hiawatha project Route A are
14 original bridges constructed circa 1914. (*See Schedule 7*, pp. 2, 17)

15 In the area that would be impacted by Route A, there are at least two bridges
16 known to be close to the end of their useful lives. The expected useful life of the Cedar
17 Avenue bridge is less than four years, and the expected useful life of the Columbus
18 Avenue bridge is from four to eight years. Even bridges that may have more than eight
19 years of remaining useful life are sure to need substantial repair or replacement during the
20 useful life of the Hiawatha transmission, which will be many decades in duration.

21 It is important to realize that the Greenway Corridor is quite narrow and, at many
22 points, the trails are very close to the bridge abutments, with little space either in the
23 trench or on the banks of the trench for construction. I went out on my bicycle a few

1 weeks ago and took a series of photographs reflecting the Midtown Greenway layout
2 starting from Hiawatha Avenue and ending at Oakland Avenue. These photographs are
3 attached as *Schedule 8* to my testimony. Looking at Photo 7, Cedar Ave. and Photo 21,
4 Columbus Ave., one can see how narrow the Midtown Greenway is at the locations
5 where repair or replacement of historic bridges is likely to be imminent.

6 **III. HIAWATHA PROJECT ROUTING.**

7 **Q. Would routing of a 115 kV high voltage power line overhead on the Midtown**
8 **Greenway be consistent with historical designation?**

9 A. There should be no overhead lines along the Greenway. The Midtown Greenway
10 trench is an NRHP-registered corridor, and an overhead high voltage power line on the
11 Greenway, as proposed in Xcel Energy’s Route A would have a negative and intrusive
12 effect upon historic resources, an adverse impact that is acknowledged both in the
13 Application (Appendix E, Cultural Resource Assessments, p. 49, paragraph 3) and in the
14 Draft Environmental Impact Statement (DEIS, p.152).

15 In addition, as with other overhead routes proposed by Xcel Energy, Route A
16 would have a significant impact on nearby historic properties, undermining the
17 architectural history as well as the scale and aesthetics of the neighborhood and reducing
18 the desirability of this area for business, residents, and recreational users of the
19 Greenway. Route A overhead would adversely impact at least 8 NHRP listed properties,
20 4 NHRP eligible properties, 3 properties that are on the 800 list and 4 Hennepin County
21 Historical Preservation Committee (“HPC”) sites, including such pivotal community
22 resources as the Sears Roebuck & Co. Building, the Minneapolis Pioneers and Soldiers
23 Memorial Cemetery and the Avalon Theater. Impacts on historical resources are detailed

1 in Xcel Energy’s Response to Information Request 15 of the Midtown Greenway
2 Coalition, attached as *Schedule 9* to my testimony.

3 **Q. Do you have any concerns about the impacts of an overhead power line on**
4 **the Greenway in terms of aesthetic, recreational and transportation values?**

5 A. An overhead power line on the Midtown Greenway would have a negative impact
6 on the aesthetic quality of trail users’ experiences and is likely to decrease the popularity
7 of the trail. Real and perceived concern about electric and magnetic fields could also
8 negatively impact trail use. Given that the Midtown Greenway is Minnesota’s busiest
9 bikeway, while Minneapolis is the second-ranked biking city in the entire nation,
10 protecting the trail users’ experience is a high priority for recreation, transportation and
11 tourism. The negative impacts of an overhead route on the Greenway on these values is
12 described in the draft environmental impact statement. (See DEIS, pp. 22-23).

13 **Q. Would locating of a 115 kV high voltage power line overhead on the**
14 **Midtown Greenway be consistent with land use planning along the Greenway?**

15 A. Overhead lines along the Midtown Greenway are not consistent with planned land
16 uses. The DEIS identifies potential negative impacts related to industrial appearances,
17 inconsistency with pedestrian scale design, and discouragement of higher density
18 residential development, all inconsistent with City-approved land plans for the area. (See
19 DEIS, p. 18). The Midtown Greenway Land Use and Development Plan, *Schedule 4*,
20 envisions re-establishment of 29th Street as a continuous pedestrian realm, with a
21 walkway, a planted boulevard and a pedestrian promenade overlooking the Midtown
22 Greenway. Additional access points, including ramps and stairs, would increase the
23 connection between businesses, residents and the Midtown Greenway. Overhead

1 transmission lines and poles would detract from this comprehensive plan.

2 In addition, the Midtown Greenway Land Use and Development Plan, *Schedule 4*,
3 proposes changing land use patterns to mostly medium density residential with some
4 areas of high density, along the Greenway from 10th Avenue to Cedar Avenue in an area
5 that is currently predominantly low density. I've communicated with several developers
6 who have completed projects on land contiguous with the west section of the Midtown
7 Greenway near Uptown, and a fourth developer who has assembled land and is planning
8 a development along the Midtown Greenway.

9 These developers, whose feedback is attached in *Schedule 10*, have informed me
10 that overhead high voltage transmission lines through the Greenway would complicate
11 financing, reduce amenities and detract from marketability of residential development.
12 The Greco firm is involved in three properties that adjoin the Greenway – two that are
13 future development sites and one that has already been redeveloped. Brent Rogers
14 cautioned, “if high voltage power lines were to be located adjacent to these properties (or
15 any other potential development sites) it would likely cause us to rethink trying to create
16 \$60 million in new development on the sites, and have an adverse effect on the
17 marketability of the existing developments.” *Schedule 10*, p. 1.

18 **Q. Do you have any concern about “fall zones” and residential development?**

19 A. The draft environmental impact statement reflects concerns about “fall zones,”
20 where properties located within 75 and 115 feet of the proposed Hiawatha project
21 transmission towers might be affected. (See DEIS, pp. 83-85). Testimony from
22 Commissioner Peter McLaughlin in the public hearing on the draft environmental impact
23 statement referred to the difficulty in securing federal housing financing for Longfellow

1 Station Redevelopment due to the presence of the 115 kV overhead power line on
2 Hiawatha Avenue. It was suggested in the public hearing that overhead 115 kV power
3 lines may create a “no investment zone” for residential development, such as that planned
4 for the Midtown Greenway corridor.

5 **Q. Do you have concerns about health risks due to overhead lines? ?**

6 A. I am not a medical expert, but my background and experience supports a policy of
7 precaution where there is some evidence of health risk, even if there is still some dispute
8 about the extent of the risk. I’ve read through the testimony submitted by Dr. David
9 Carpenter in another recent Minnesota power line case, for the Brookings to Hampton
10 CapX2020 power line. My understanding is that the experts have not agreed on the cause,
11 but they do agree that scientific studies have consistently shown an increased risk of
12 childhood leukemia with magnetic fields from power lines at 3-4 milligauss (“mG”) and
13 some indication of risk with magnetic fields above 2 mG. Dr. Carpenter’s testimony is
14 attached as *Schedule 11* to my testimony.

15 The information we received from Xcel Energy about magnetic fields on the
16 overhead line Route A are contained in *Schedule 12*, on page 21, attached to my
17 testimony. On the average, the overhead 115 kV power line would have magnetic fields
18 of 23 mG at the centerline and would still have average magnetic fields of 13.82 mG at a
19 distance of 25 feet from the centerline.

20 Other information we received from Xcel explains how many dwelling units --
21 houses or apartments -- are within various distances of proposed routes for the Hiawatha
22 power line. This information is contained in *Schedule 13*. For the overhead Route A on
23 the Greenway, there are 245 dwelling units within 0 to 25 feet from the high voltage

1 transmission line centerline, where people would be exposed to magnetic fields of almost
2 14 mG within their homes.

3 I am concerned that this level of magnetic field exposure could present an
4 unacceptable risk to people who now live near the Midtown Greenway and that public
5 perceptions of the health risk would undermine community revitalization. Several people
6 at the public hearing on the DEIS testified that they had moved into the community
7 specifically to be near the Midtown Greenway to enhance recreation, health and safety
8 for their families. This type of community revitalization would be undermined by an
9 overhead route on the Greenway. In addition, the combination of aesthetic impacts and
10 health concerns are likely to prevent future residential and economic development.

11 Developer Stuart Ackerberg explained to me:

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

19 **Q. What would be the implications of locating the Hiawatha project 115 kV**
20 **power line underground on 29th Street and on the southern shoulder of the Midtown**
21 **Greenway as proposed by Xcel Energy?**

22 A. Locating the 115 kV power line underground on the south shoulder of the
23 Greenway isn't prudent because this location is likely to interfere with plans for transit

1 development along the Greenway. It has not yet been determined how the Midtown
2 Greenway will need to be modified to accommodate transit, along with pedestrian
3 improvements to 29th Street to connect transit with people and businesses. Transit stations
4 will pose a particular challenge; there is not enough space in the existing Greenway
5 trench to accommodate transit tracks and station platforms, and the Greenway may need
6 to expand laterally. Future construction of rail transit stations may require occupation of
7 not only Greenway land but also land under East 29th Street in order to accommodate two
8 tracks, one or two station platforms, vertical circulation, and perhaps additional public
9 open space to create an inviting environment. An example of a station design advocated
10 by the Midtown Greenway Coalition to support both transit and enhance community
11 development is provided in *Schedule 5*.

12 If high voltage power lines are routed under 29th Street, construction of transit and
13 stations is likely to require re-routing and relocating the lines. If this cost were borne by
14 the HCRRA, location of the power line would serve as a barrier to design and
15 construction of transit and transit stations to meet the community's needs.

16 **Q. Would the current state of bridge infrastructure over the Midtown Greenway**
17 **create conflicts with an underground transmission line routed on the Greenway?**

18 A. The need to repair or replace aging bridge infrastructure, as explained before,
19 could impact a transmission line routed underground on 29th Street. The space needed to
20 remove existing south bridge abutments and create new ones may conflict with an
21 underground high voltage transmission line (“HVTL”).

22 **Q. Do you have any concerns about locating the Hiawatha project 115 kV power**
23 **line underground on the northern part of the Midtown Greenway, as proposed by**

1 **Xcel as their Route A3 alternative?**

2 A. In my opinion, the construction of HTVLs underneath the Greenway trench floor,
3 as Xcel proposed in their response to the Midtown Greenway Coalition’s Information
4 Request (“IR”) 30, attached as *Schedule 12*, would not be prudent or consistent with the
5 vision for the Greenway reflected in City and community plans. Because of the gradient
6 of the trench, the bridge abutments and access ramps, the Midtown Greenway
7 construction area is much narrower and less flexible than it might appear from an aerial
8 map. The power line route would have to be routed under the trails and could conflict
9 both with bridge repair and the development of transit. The photographs that I took from
10 my bike block by block, which are provided in *Schedule 8*, give a helpful point of
11 reference.

12 Looking at the Greenway in three dimensions, one can see that running the power
13 lines on a northern alignment to reduce conflict with potential transit development would
14 place the 115 kV HVTL directly under the bicycle and walking trails for a significant
15 distance. Having reviewed the maps provided by Xcel in their initial answers to IR 30
16 from the Midtown Greenway Coalition, contained in *Schedule 12* (pp. 7-12), I would
17 estimate that for approximately eight of the 20 blocks where Route A3 goes through the
18 Greenway, the lines would have to run directly under the trails. Xcel suggests that
19 although the 115 kV power line will be less than 10 feet from the trails for most of the
20 route, it would only be directly under the Greenway at 11th and 10th Avenues. *Schedule*
21 *12*, p. 20. However, Xcel’s underground power line route (*Schedule 12*, pp. 13-18) is
22 drawn as if the bridges, concrete retaining walls and concrete access ramps didn’t exist. If
23 one looks at what is actually in the Greenway trench ground, there are many blocks

1 where no physical separation from the trails would be possible.

2 **Q. Why is the lack of physical separation between the Greenway trails and**
3 **underground power line Route A3 important?**

4 A. The lack of physical separation between the trails and the Route A3 underground
5 route is significant due to potential magnetic field exposures for people riding over the
6 power lines. Xcel plans that the power lines would be buried just 30 inches below the
7 trail surface. See Response to IR 29, attached to my testimony as *Schedule 14*. Depending
8 on what type of conductor is used, average magnetic fields could be nearly 4 mG or
9 nearly 12 mG directly above the power line. See *Schedule 12*, p. 21. People may not feel
10 comfortable or safe riding or walking directly above a high voltage power line, which
11 would impair the positive perception of the Greenway and, potentially, reduce trail use.

12 The lack of physical separation between the trails and Route A3 underground
13 would also increase the disruption of trails use during any construction period. Members
14 of the public at the hearing on the DEIS explained that taking the Greenway out of
15 service is not like road construction. Unlike automobile users, who can use other parallel
16 roads during construction, Greenway trail users have no other similar facility to use.

17 **Q. Would the proposed Route A3 underground on the Greenway pose conflicts**
18 **with bridge repair or the development of transit?**

19 A. In my opinion, due to the narrowness of the Greenway trench, the underground
20 Route A3 alignment could create problems with repair or replacement of old bridges.
21 Similar to difficulties with a 29th Street underground alignment on the southern edge of
22 the Greenway, the excavation of existing bridge pier footings may impact an
23 underground route below the Greenway trench floor. I have included with my testimony,

1 in *Schedule 15*, a photograph I took in 2006 during reconstruction of the Park Bridge over
2 the Greenway. My recent photographs in *Schedule 8* (pp. 7, 21) show the Cedar Avenue
3 and Columbus Avenue bridges, which are coming to the end of their useful lives within
4 the next eight years according to the Historic Bridge Study. One can see how narrow the
5 trench is where these bridges over the Midtown Greenway would have to be rebuilt.

6 The proposed power line Route A3 on the Greenway trench floor could also
7 conflict with transit along the Midtown Greenway. The location of the future rail tracks
8 within the Greenway trench is unknown. One scenario calls for putting two transit tracks
9 down the center of the Greenway between the two piers sets of the bridges. See Diagram
10 D, p. 4-3 of the Midtown Greenway Master Plan in *Schedule 1*. While the Midtown
11 Greenway Coalition does not advocate this configuration, we recognize the challenge of
12 fitting transit and trails in the Greenway and the potential that any HVTL in the
13 Greenway might need to be relocated.

14 Through the narrow middle section of the Greenway, it is likely that corridor
15 modifications will be required to accommodate rail transit alongside the trails. Trails
16 might need to be moved to the north, and part or all of the southern embankment might
17 need to be replaced with retaining walls to widen the trench floor to the south. The
18 Midtown Greenway Coalition does not believe that optimizing the planning or
19 construction of transit should have to consider the location of high voltage transmission
20 lines or the potential costs for their relocation so long as there is an alternative that would
21 not compromise transit and land use planning. I agree with the summary in the draft
22 environmental impact statement that “Route A, whether above or underground, has the
23 potential to negatively affect plans for future rail transit within the Midtown Greenway

1 Corridor.” (DEIS, p. 26).

2 **Q. Do you have an opinion regarding overhead power lines on other routes**
3 **proposed for the Hiawatha Project?**

4 A. No overhead route through any of the surrounding communities is acceptable due to
5 conflicts with land use and scale, impacts on historical buildings, magnetic field
6 exposures and the risk of economic disinvestment and environmental injustice in the low-
7 income and diverse communities adjacent to the Midtown Greenway.

8 All overhead routes would introduce modern towers of a material and design
9 inconsistent with residential land use and planning and with surrounding historic
10 properties of significance, resulting in a negative impact on these resources. The draft
11 environmental impact statement noted that overhead power line visual intrusions may
12 discourage additional residential or higher density development (DEIS, p. 18); they may
13 be out of scale with the pedestrian scale character that is sought in the area (DEIS, p. 18);
14 and that the bases of the towers (36 to 58 inches) could also impair sight lines and cause
15 safety concerns near alleys or roadway intersections and constrain accessibility on
16 sidewalks (DEIS, p. 26). The draft environmental impact statement suggested, “Construct
17 the transmission lines underground,” as a potential mitigation measure for a number of
18 adverse impacts. (DEIS, ES-2).

19 As with the overhead Route A, overhead routes B, C and E have a long list of
20 NRHP listed, NRHP eligible, HPC designated and 800 listed cultural resources that
21 would be adversely impacted by an overhead 115 kV transmission line route. See
22 Response to Midtown Greenway Coalition IR 15, attached as *Schedule 9*.

23 As with Xcel’s overhead Route A, other overhead power line routes would expose

1 residents in hundreds of homes and apartments to magnetic fields above 3-4 mG. The
2 Application for this route permit stated that average magnetic fields under the centerline
3 for Routes B and C are 16.49 mG, with peak magnetic fields as high as 26.16 mG. At 25
4 feet from the centerline, average magnetic field exposures would range from 7.63 mG to
5 16.54 mG. (See the Route Application, p. 69, Table 8). Based on Xcel's response to
6 questions from the Midtown Greenway Coalition, Route B (overhead) has 35 homes and
7 335 dwelling units from 0-25 feet of the centerline and Route C (overhead) has 31 homes
8 and 206 dwelling units from 0-25 feet of the centerline. (Response to MGC IR 3, attached
9 as *Schedule 13*). According to Xcel, hundreds of families in the communities near the
10 Greenway would be exposed to ongoing magnetic fields of at least 7.63 mG if not 16.54
11 mG. Exposures at this level seem inconsistent with public health precaution or protection
12 of environmental justice in economically distressed areas.

13 **Q. Are overhead 115 kV high voltage transmission lines common in densely**
14 **populated neighborhoods in Minnesota?**

15 A. We wanted to know whether it was common to put 115 kV high voltage
16 transmission lines overhead in densely populated neighborhood or whether the racially
17 diverse community near the proposed project was an exception. So we asked Xcel Energy
18 to tell us about other overhead 115 kV power lines in areas of Minnesota with a
19 population density equal to or greater to that of the Hiawatha project area. What we
20 learned is reflected in Xcel's Response to our IR 6, attached as *Schedule 16* to my
21 testimony. In all of Minnesota, Xcel could identify only three segments of 115 kV
22 transmission routed overhead in densely populated neighborhoods; all three had been
23 constructed in the 1950's. These three overhead high voltage transmission lines had been

1 built in the Cedar-Riverside and the Marcy Holmes neighborhoods of Minneapolis and in
2 the Frogtown neighborhood of St. Paul.

3 **Q. What position have community organizations taken regarding routing of the**
4 **Hiawatha project?**

5 A. The City of Minneapolis, the HCRRA, the Midtown Greenway Coalition and
6 every surrounding community are all opposed to overhead power line routing for the
7 Hiawatha project. Feedback from developers suggests that the adverse economic impacts
8 of an overhead 115 kV power line in this area could well exceed project costs.

9 All five of the neighborhood organizations representing the communities that
10 would host a substation or are situated along potential HTVL routes on the Midtown
11 Greenway or East 28th Street have adopted positions regarding HVTL routes. All five of
12 them stated that, if a power line cannot be avoided with conservation or distributed
13 generation, the route underground along East 28th Street is an acceptable route. These
14 neighborhood organizations, the bodies that approved their positions, and the dates the
15 positions were approved, are:

- 16 1. East Phillips Improvement Coalition, community meeting, November 13, 2008;
- 17 2. Midtown Phillips Neighborhood Association, membership meeting, January 12,
18 2009;
- 19 3. Longfellow Community Council, board meeting, January 22, 2009;
- 20 4. Seward Neighborhood Group, board meeting, January 28, 2009;
- 21 5. Phillips West Neighborhood Organization, community meeting, April 2, 2009.
- 22 East Phillips stated that an underground route along Greenway south shoulder

1 would also be an acceptable route, while the other four organizations did not state that
2 any route other than underground on 28th Street (Route D) would be acceptable. In fact,
3 Midtown Phillips, the Seward Neighborhood Group, and Phillips West specified that the
4 lines should not be in the Midtown Greenway, either above or below ground.

5 The Corcoran Neighborhood Organization (CNO), also an intervenor in these
6 proceedings, adopted a resolution in December 2008 calling for a delay in the project and
7 the pursuit of conservation and other alternatives; their resolution did not state a route
8 preference. More recently, in their petition to intervene, CNO opposed Xcel's Route C
9 that would run an overhead HTVL on East 31st Street.

10 Additional neighborhoods that are not formal parties to this proceeding have
11 adopted resolutions related to the Hiawatha Project as follows:

- 12 • Cedar Isles Dean voted in January 2009 to approve a resolution calling for a
13 delay in the project and the pursuit of conservation and other alternatives, but
14 not stating a route preference.
- 15 • East Calhoun Community Organization voted in January 2009 to approve a
16 resolution calling for a delay in the project and the pursuit of conservation and
17 other alternatives, but not stating a route preference.
- 18 • The Powderhorn Park Neighborhood Association voted in February 2009 to
19 approve a resolution calling for a delay in the project and the pursuit of
20 conservation and other alternatives. The resolution opposed any routes
21 through or along the Greenway, above or below ground.
- 22 • The Lyndale Neighborhood Association voted in February 2009 to approve a
23 resolution calling for a delay in the project and the pursuit of conservation and

1 other alternatives. This resolution also opposed any routes through or along
2 the Greenway, above or below ground.

3 Resolutions from these communities are included in the Response to MCG IR 28 and
4 Attachment, attached as *Schedule 17* to my testimony.

5 The Midtown Community Works Partnership (MCWP), a collection of elected
6 officials, corporate leaders, and community representatives, also adopted a resolution on
7 February 12, 2009 calling for an underground route on East 28th Street and opposing
8 overhead lines along the Midtown Greenway.

9 **Q. What positions have governmental organizations taken regarding an acceptable
10 route for the proposed Hiawatha power line?**

11 A. The City of Minneapolis adopted a resolution designating an underground route
12 under the East 28th Street roadway (Route D) as its preferred route. The Hennepin
13 County Regional Railroad Authority, owner of the Midtown Greenway corridor, has
14 opposed overhead HTVLs along the Midtown Greenway, but has not identified an
15 acceptable or preferred route. These resolutions are included in *Schedule 17*.

16 **Q. Does the Midtown Greenway Coalition have a position regarding a route that
17 would be acceptable for the Hiawatha project?**

18 A. Yes. If it is not possible to avoid the Hiawatha project through increased
19 conservation or distributed generation, the Midtown Greenway Coalition believes that an
20 underground route along East 28th Street (Route D) would be the most acceptable route.
21 However, we do not believe that the alignment proposed by Xcel, under the sidewalk on
22 the north side of East 28th Street is an appropriate alignment for this underground route.

23 As explained in Xcel's Response to Midtown Greenway Coalition IR 17, attached

1 as *Schedule 18*, an alignment on the north side sidewalk would place the power line from
2 12 to 75 feet away from residences. According to Xcel, magnetic fields from
3 underground power lines drop off much more quickly than for an overhead line. At 20
4 feet from underground Route D, even peak magnetic fields would be below 1 mG.
5 However, at 10 feet away, peak magnetic fields would still be from 3.7 mG to 4.1 mG
6 and average magnetic fields would be 2.2 mG to 2.5 mG. See *Schedule 12*, p. 21. Placing
7 the Route D alignment in the center of East 28th Street would increase the distance from
8 the power line, so that the nearest homes would be from 20 to 115 feet away, increasing
9 precaution and reducing exposure.

10 A Route D alignment in the middle of East 28th Street would also avoid the loss of
11 43 trees that would result from an alignment on the north sidewalk of East 28th Street.
12 (See *Schedule 18*). These trees could only be replaced with shallow rooted species. The
13 center-of-the street alignment is needed to protect the urban forest and the pedestrian
14 realm as well aesthetics and the amenities of nearby residential property.

15 **IV. HIAWATHA PROJECT SUBSTATIONS**

16 **Q. Do you have a position regarding the location of a substation on the east end**
17 **of the project, designated by Xcel as the Hiawatha substation?**

18 A. The Midtown Greenway Coalition's position regarding substations is based on
19 our goal to preserve and create green space adjacent to the Greenway and our
20 commitment to support neighboring communities in their planning and development
21 efforts. Location of a substation on Xcel Energy's preferred site – the Hiawatha West site
22 -- is at odds with community, Coalition and City goals to preserve green space and would
23 negate all of the community planning and planting efforts invested in this site. Location

1 of a substation on the Hiawatha West site, as proposed by Xcel, would destroy the only
2 green space adjacent to the Midtown Greenway and interfere with plans to build a leg of
3 the Greenway bicycle trail to connect to Lake Street on the western edge of the site. The
4 Hiawatha West substation site has been evaluated by affected neighborhoods as
5 unacceptable, and the Midtown Greenway opposes this site.

6 The substation site designated in the draft environmental impact statement as G-4
7 is the site considered to be acceptable by representatives of the most directly affected
8 community. The Midtown Greenway Coalition would support this substation site, if it is
9 feasible, since it would minimize impacts on both the Greenway and the community.

10 **Q. Have you evaluated Xcel Energy’s recent proposal that the Zimmer-Davis**
11 **site be considered as an alternative Hiawatha Substation location?**

12 A. The Coalition has read Xcel’s February 8, 2010 response to Longfellow
13 Community Council IR 1 stating that the Zimmer-Davis site could be considered as an
14 alternative Hiawatha Substation location and “should be considered as a primary site in
15 this routing proceeding.” We have not yet had the opportunity to evaluate whether this
16 site could be acceptable with appropriate mitigation.

17 **Q. What mitigation of impacts do you believe is needed for a Hiawatha**
18 **substation?**

19 A. The Coalition believes that the footprint of any Hiawatha substation along the
20 Greenway should be minimized by undergrounding both the project transmission lines
21 and connecting transmission and distribution lines. Landscaping should be provided on
22 the edges of the site facing the Greenway and the community, potentially including a
23 berm to create the appearance of undergrounding the substation. Construction should be

1 consistent with planning for high quality development and public art should be integrated
2 in the site design.

3 **Q. Do you have a position regarding the substation proposed for the west end of**
4 **the project, designated by Xcel as the Midtown substation?**

5 A. The Midtown Greenway Coalition has no position designating a specific
6 alternative location for the Midtown Substation. However, the Coalition is concerned that
7 Xcel's current plan for the substation creates an industrial-style land use with no
8 amenities, is inconsistent with the residential character of the immediate neighborhood
9 and would impair the aesthetics and appeal of the adjacent Greenway trails.

10 The Coalition believes that, if the substation is sited on Midtown North, the
11 footprint of the substation should be minimized by placing both transmission and
12 distribution lines underground. The quality of architecture must be in keeping with a
13 residential neighborhood as well as integrated with public art, and landscaping must be
14 provided to reduce impacts on residents and the Greenway. In addition, as part of the
15 mitigation for this project, space should be retained for, and funding provided to
16 implement plans calling for a pedestrian walkway along the Greenway rim in the section
17 of the Greenway near the proposed Midtown North Substation.

18 **IV. COST SHARING**

19 **Q. Do you have an opinion as to how any costs for the underground route**
20 **alternative on East 28th Street should be paid for?**

21 A. I believe that all costs for the Hiawatha project, including costs for routing the
22 project underground on East 28th Street should be broadly distributed through Xcel's rate
23 base. Although Xcel has suggested to City and County leaders that any underground

1 route would be a “special” facility, for which the local community would pay a
2 surcharge, Xcel’s own history with underground transmission lines in Minnesota,
3 including in other Minneapolis neighborhoods contradicts this claim.

4 In response to Midtown Greenway Coalition IR 26, Xcel identified a total of 13
5 underground 115 kV projects representing 9.84 miles of transmission from the 1960’s
6 through the 2000’s. (*Schedule 19*, chart on pp. 3-4). To the best of Xcel’s knowledge
7 “none of the underground facilities identified in the above chart involved any incremental
8 cost analysis.” Further, “It is Xcel Energy’s understanding that none of the 13
9 underground segments was paid for through the CRFS [City Requested Facilities
10 Surcharge] mechanism which has only been used for distribution facilities.” For many of
11 the underground routes, Xcel stated that the factor that determined that the transmission
12 line would not be subject to a local surcharge was that there was “no viable overhead
13 route.” (*Schedule 19*, p. 5).

14 There is no precedent for charging a local community for incremental costs of
15 underground transmission. From the perspective of the Midtown Greenway Coalition,
16 local developers, community organizations and local governments, there is no viable
17 overhead route for the Hiawatha project; costs for underground Route D should be spread
18 over the rate base, as has been done with all prior similar projects.

19 **V. CONDITIONS TO PREVENT NEED FOR EXPANSION**

20 **Q. Are there any conditions that the Midtown Greenway Coalition believes**
21 **would be appropriate if a route permit is granted for the Hiawatha transmission**
22 **project?**

23 A. There is widespread concern among the members of the Midtown Greenway

1 Coalition that the Hiawatha 115 kV project is not needed and that neither the potential for
2 distributed generation nor conservation was adequately considered by Xcel Energy. We
3 are also concerned that the Hiawatha project described in this proceeding is only a small
4 portion of a larger transmission expansion plan that will continue to have adverse impacts
5 on our neighborhood.

6 **Q. What is the basis for your belief that Xcel Energy plans to expand**
7 **transmission and substations in the Hiawatha project area?**

8 A. In Xcel Energy’s Application for a route permit, Xcel explicitly requested both a
9 Hiawatha Substation site and a site adjacent to it that would permit expansion of the
10 Hiawatha Substation to accommodate a potential future 345 kV transmission line along
11 Hiawatha Avenue. In response to Information Requests 22 and 23 from the Midtown
12 Greenway Coalition, Xcel stated that there are no “current plans” to construct a 345 kV
13 line in the South Minneapolis area or to expand the Hiawatha Substation, but with
14 additional load growth “it may be necessary to introduce a larger 345 kV source to
15 relieve the 115 kV system.” Xcel’s Responses to IRs 22 and 23 are attached as *Schedule*
16 *20* and *Schedule 21*.

17 We reviewed energy planning studies provided by Xcel in discovery. The South
18 Minneapolis Electric Reliability Study performed by Xcel Energy in 2008, which is
19 attached in *Schedule 22*, identified the Hiawatha 345 kV Option as Xcel’s “Preferred
20 Plan.” This Preferred Plan included the Hiawatha transmission project that is in these
21 proceedings as a 2010 addition and added several other facilities by 2020, for a total cost
22 of \$115,722,800 (without including underground transmission). Xcel described its
23 Preferred Plan as follows:

1 “The 345 kV Hiawatha Plan, which has been identified as the ‘Preferred Plan’,
2 involves addition of a new Hiawatha 345/115 kV substation, a new Midtown 115
3 kV substation, a new Cleveland 345/115 kV substation, a new Crosstown 115 kV
4 substation, a new double circuit 115 kV line from Hiawatha-Midtown, a new 345
5 kV line from Cleveland-Hiawatha, and a new double circuit 115 kV line from
6 Wilson-Crosstown.” (*Schedule 22*, p. 16)

7 The timing for these expansions included the following:

- 8 • In 2010 add a new Hiawatha I 15 kV distribution substation on the Elliot Park-
9 Southtown 115 kV line. A new Midtown 115 kV substation with a new double-
10 circuit 115 kV line to the Hiawatha substation. [This Hiawatha project];
- 11 • In 2016 add the second distribution transformers at Crosstown and Midtown.
- 12 • In 2011 add the second distribution transformer at Hiawatha.
- 13 • In 2020, add a new 345 kV line from the Cleveland substation to the Hiawatha
14 substation. Add a new 345/115 kV, 448 MVA transformer at Hiawatha.

15 (*Schedule 22*, pp. 3-4)

16 Xcel provided an additional supplement to Midtown Greenway Coalition
17 Information Request 18a this week, stating that the 2008 10-year plan had been
18 supplanted by the Company’s most recent 10-year plan and including a page of the 2009
19 Biennial Transmission Plan. The 2009 page stated that there are “no current identified
20 transmission needs” that would require construction of a Penn Lake Substation, a
21 Highway 62 Substation, or transmission lines from the Oakland Substation to the
22 southwest. See *Schedule 23*, attached.

23 None of the responses received from Xcel state eliminate the Hiawatha 345 kV

1 Option, nor the likelihood that future load growth will require extension of transmission
2 lines from the Oakland (Midtown) Substation to the southwest. At best, Xcel's plans for
3 transmission expansion may have been delayed for now. From the perspective of the
4 Midtown Greenway Coalition, additional load management and peak management must
5 be planned now to reduce the likelihood of further impacts to the Greenway and
6 surrounding neighborhoods from transmission and substation expansions.

7 **Q. What conditions would you recommend to reduce the likelihood of future**
8 **transmission and substation enlargement in the Hiawatha project area?**

9 A. We believe that conditions on the route permit should require 1) that Xcel fund a
10 study to quantify potential load and peak demand reductions possible through
11 conservation, distributed generation, energy storage and smart grid usage in the South
12 Minneapolis project area; 2) that Xcel fund a targeted and quantifiable effort to
13 implement conservation, distributed generation, energy storage and smart grid methods
14 and projects identified in this study, working in collaboration with business and
15 community leaders, perhaps through the Midtown Community Works Partnership
16 (MCWP). The Midtown Greenway Coalition believes that planning and implementation
17 for reduction in peak energy usage is needed to avoid or defer future expansions of
18 transmission that would have adverse impacts on the Midtown Greenway and our
19 surrounding communities.

20 **Q. Does this complete your prefiled testimony?**

21 A. Yes.

TABLE OF SCHEDULES

Schedule 1 Midtown Greenway Master Plan (96 pages)

Schedule 2 Schematic Greenway Map (1 page)

Schedule 3 Photographs – Greenway Before, During, After Development (4 pages)

Schedule 4 Midtown Greenway Land Use and Development Plan (96 pages)

Schedule 5 Transit Plaza Illustration (1 page)

Schedule 6 Plans for East Hiawatha Green space Plantings 2008, 2009 (2 pages)

Schedule 7 Historic Bridge Study (127 pages, in two Parts)

Schedule 8 Photographs of Midtown Greenway from Hiawatha to Oakland (23 pages)

Schedule 9 Xcel Resp. to Midtown Greenway Coalition (“MGC”) IR 15 [Historic Properties] (16 pages)

Schedule 10 Developer Feedback (3 pages)

Schedule 11 Prefiled Direct Testimony of Dr. David Carpenter in Brookings CapX2020 Transmission Case (Docket 08-1474) (76 pages)

Schedule 12 Xcel Resp. to MGC IR 30 [Greenway Routes, Magnetic Fields] (21 pages)

Schedule 13 Xcel Resp. to MGC IR 3 [Dwellings Near Routes] (5 pages)

Schedule 14 Xcel Resp. to MGC IR 29 [Underground Design Features](14 pages)

Schedule 15 Photograph of Bridge Reconstruction (1page)

Schedule 16 Xcel Resp. to MGC IR 6 [Overhead 115 kV Dense Areas] (4 pages)

Schedule 17 Xcel Resp to MGC IR 28 and Attachment [Resolutions] (63 pages)

Schedule 18 Xcel Resp. to MGC IR 17 [28th Street Alignments] (10 pages)

Schedule 19 Xcel Resp. to MGC IR 26 [Underground Lines] (10 pages)

Schedule 20 Xcel Resp. to MGC IR 22 [345 kV Expansion] (3 pages)

Schedule 21 Xcel Resp. to MGC IR 23 [Hiawatha Substation Expansion] (3 pages)

Schedule 22 South Minneapolis Electric Reliability Study (2008) (24 pages)

Schedule 23 Xcel Resp. to MGC IR 18a (4 pages)