

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

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

PUC DOCKET No. ET-2/TL-09-38
OAH DOCKET No. 15-2500-20599-2

XCEL ENERGY'S PROPOSED FINDINGS
OF FACT, CONCLUSIONS OF LAW, AND
RECOMMENDATIONS

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**STATE OF MINNESOTA
PUBLIC UTILITIES COMMISSION**

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

PUC DOCKET NO. ET2/TL-09-38
OAH DOCKET NO. 15-2500-20599-2
FINDINGS OF FACT, CONCLUSIONS OF
LAW, AND RECOMMENDATIONS

A public hearing was held before Beverly Jones Heydinger, Administrative Law Judge (“ALJ”), commencing on April 5, 2010, in Minneapolis, Minnesota and continuing at dates and places more specifically set forth below. The evidentiary portion of the hearing commenced on April 12, 2010 in St. Paul, Minnesota and continued at dates and places more specifically set forth below.

Lisa M. Agrimonti and Valerie T. Herring, Briggs and Morgan, P.A., 80 South Eighth Street, 2200 IDS Center, Minneapolis, MN 55402, and Jennifer Thulien Smith, Assistant General Counsel, appeared for Northern States Power Company, a Minnesota corporation (“Xcel Energy” or “Company”), 414 Nicollet Mall, Minneapolis, MN 55401.

Karen Finstad Hammel, Assistant Attorney General, 445 Minnesota Street, Suite 1500, St. Paul, MN 55101, and Bill Storm appeared on behalf of the Department of Commerce, Office of Energy Security (“OES”).

Corey Conover and Gregory Sautter, Assistant City Attorneys, 333 South Seventh Street, Room 300, Minneapolis, Minnesota 55402, appeared on behalf of the City of Minneapolis (“City” or “City of Minneapolis”).

Charles H. Salter, Assistant Hennepin County Attorney, C-2000 Government Center, 300 South Sixth Street, Minneapolis, Minnesota 55487, appeared on behalf of Hennepin County and the Hennepin County Regional Railroad Authority (“County” or “Hennepin County”).

Paula Goodman Maccabee, Attorney at Law, Just Change Consulting, 1961 Selby Avenue, St. Paul, Minnesota 55104, appeared for the Midtown Greenway Coalition (“MGC”).

Howard Roston, Attorney at Law, Malkerson, Gunn, Martin, LLP, 220 South Sixth Street, Suite 1900, Minneapolis, Minnesota 55402, appeared for Crew2, Inc. (“Crew2”).

Sheldon Mains, 2718 East 24th Street, Minneapolis, Minnesota 55406, appeared for Seward Neighborhood Group, Inc. (“SNG”).

Eric Gustafson, 3451 Cedar Avenue South, Minneapolis, Minnesota 55406, appeared for Corcoran Neighborhood Organization (“CNO”).

Elizabeth H. Schmiesing and Rhyddid Watkin, Attorneys at Law, Faegre & Benson, LLP, 2200 Wells Fargo Center, 90 South Seventh Street, Minneapolis, Minnesota 55402, appeared for Wells Fargo Bank, N.A., (“Wells Fargo”).

Shirley Heyer, 2426 13th Avenue South, Minneapolis, Minnesota 55404, appeared for Midtown Phillips Neighborhood Association, Inc. (“MPNAI”).

Carol Ann Pass, 2536 18th Avenue South, Minneapolis, Minnesota 55402, appeared for East Phillips Improvement Coalition (“EPIC”).

Richard Savelkoul, Attorney at Law, Felhaber, Larson, Fenlon & Vogt, P.A., 444 Cedar Street, Suite 2100, St. Paul, Minnesota 55101, appeared for Primary Surgical Inc., d/b/a Zimmer Davis (“Zimmer Davis”).

Lori Ellis, 2495 18th Avenue South, Minneapolis, Minnesota 55404, appeared for Little Earth of United Tribes (“Little Earth”).

Eric Hart, 3119 44th Avenue South, Minneapolis, Minnesota 55406, appeared for Longfellow Community Council (“LCC”).

Bob Cupit, Bret Eknes, and Tricia DeBleeckere, planning directors, Minnesota Public Utilities Commission (“Commission”), 121 Seventh Place East, Suite 350, St. Paul, MN 55101 appeared on behalf of the Commission.

STATEMENT OF ISSUE

Should the Commission issue a route permit to Xcel Energy, and if so for which of the routes under consideration?

Based on information in the Route Permit Application to the Commission, the testimony at the public hearing, written comments and exhibits received in this proceeding, the ALJ makes the following:

FINDINGS OF FACT

I. PROCEDURAL SUMMARY

1. Xcel Energy is a Minnesota corporation headquartered in Minneapolis, Minnesota. Xcel Energy is a wholly owned subsidiary of Xcel Energy Inc., a utility holding company with its headquarters in Minneapolis. Xcel Energy provides electricity services to approximately 1.2 million customers and natural gas services to 425,000 residential, commercial and industrial customers in the State.¹

2. On April 24, 2009, Xcel Energy submitted an Application for Route Permit (“Application”) for two 115 kV transmission lines and two distribution substations in south Minneapolis that would connect the electrical system near the intersection of Hiawatha Avenue and 28th Street to the electrical system at the intersection of Oakland Avenue South and 29th Street (the “Project”).²

3. On May 13, 2009, OES Energy Facility Permitting staff filed comments and recommendations regarding the completeness of the Application and the formation of advisory task forces.³

4. On May 26, 2009, the Commission accepted the Application as complete and authorized the OES Energy Facility Permitting staff to process the Application under the full permitting process in Minnesota Rules Chapter 7850.⁴ The Commission also authorized the OES Energy Facility Permitting staff to name a public advisor and to establish advisory task forces and develop a structure and charge for them.⁵

¹ Ex. 1A at p. 9 (Application).

² Ex. 1A at p. 2 (Application).

³ Ex. 132 (OES May 13, 2009 Comments).

⁴ *In the Matter of the Route Permit Application for a High Voltage Transmission Line Route Permit for the Hiawatha Transmission Project*, Docket No.: ET2/TL-09-38, Order (May 26, 2009).

⁵ *In the Matter of the Route Permit Application for a High Voltage Transmission Line Route Permit for the Hiawatha Transmission Project*, Docket No.: ET2/TL-09-38, Order (May 26, 2009).

5. On May 28, 2009, Xcel Energy filed Confirmation of Notice including Affidavits of Mailing and Publication as required under Minnesota Statute § 216E.03, subd. 4; Minn. R. 7850.2100, Subp. 2; and Minn. R. 7850.2100, Subp. 4.⁶

6. On May 29, 2009, OES issued a Notice of Public Information and Environmental Impact Statement (“EIS”) Scoping Meetings.⁷

7. On June 2, 2009, the Commission assigned this matter to Administrative Law Judge Beverly Jones Heydinger of the Office of Administrative Hearings (“OAH”).⁸

8. On June 18, 2009, OES held a Public Information and Environmental Impact Statement Scoping Meeting.⁹

9. On June 19, 2009, MGC filed a petition to intervene as a full party under Minn. R. 1400.6200.¹⁰

10. On July 8, 2009, the ALJ issued an order granting the Petition for Intervention of MGC.¹¹

11. On July 23, 2009, Crew2 filed a petition to intervene as a full party under Minn. R. 1400.6200.¹²

12. On July 31, 2009, the City of Minneapolis filed a petition to intervene as a full party under Minn. R. 1400.6200.¹³

⁶ Exs. 29 & 30 (May 6, 2009 Notice of Route Permit Application Filing Letter (to those directly affected by routes) & May 21, 2009 Notice of Route Permit Application Filing Postcard (to others in Project Area)).

⁷ Ex. 133 (OES Notice of EIS Scoping Meetings).

⁸ *In the Matter of the Route Permit Application for a High Voltage Transmission Line Route Permit for the Hiawatha Transmission Project*, Docket No.: ET2/TL-09-38, Order (June 2, 2009).

⁹ Ex. 135 (Public Information and EIS Scoping Meeting Transcripts).

¹⁰ *In the Matter of the Route Permit Application for a High Voltage Transmission Line Route Permit for the Hiawatha Transmission Project*, Docket No.: ET2/TL-09-38, Petition to Intervene Midtown Greenway Coalition (June 19, 2009).

¹¹ *In the Matter of the Route Permit Application for a High Voltage Transmission Line Route Permit for the Hiawatha Transmission Project*, Docket No.: ET2/TL-09-38, Order Granting Intervention to Midtown Greenway Coalition (July 8, 2009).

¹² *In the Matter of the Route Permit Application for a High Voltage Transmission Line Route Permit for the Hiawatha Transmission Project*, Docket No.: ET2/TL-09-38, Petition to Intervene Crew2, Inc. (July 23, 2009).

13. On August 11, 2009, the ALJ issued the First Prehearing Order setting the schedule and parameters for the contested case. The Order granted the Petitions for Intervention of Crew2 and the City of Minneapolis; established December 14, 2009, as the deadline for a party to intervene; established January 11, 2010, as the deadline for filing Direct Testimony; established February 1, 2010, as the deadline for filing Rebuttal Testimony; established February 12, 2010, as the deadline for filing Surrebuttal Testimony; determined that combined public hearing and evidentiary hearing will be held on February 22, 2010 and continued on February 23-26, 2010; and established March 8, 2010, as a deadline for the public to submit comments to the ALJ.¹⁴

14. On August 28, 2009, OES issued the Advisory Task Force Report (“ATF”) which identified, among other things, impacts and issues to be evaluated in the EIS.¹⁵

15. On September 1, 2009, Hennepin County filed a petition to intervene as a full party under Minn. R. 1400.6200.¹⁶

16. On September 1, 2009, OES issued the EIS Scoping Decision that set forth the alternatives and issues to be addressed in the EIS.¹⁷

17. On September 14, 2009, the ALJ issued an order granting the Petition for Intervention of Hennepin County.¹⁸

18. On September 17, 2009, Little Earth filed a petition to intervene as a full party under Minn. R. 1400.6200.¹⁹

¹³ *In the Matter of the Route Permit Application for a High Voltage Transmission Line Route Permit for the Hiawatha Transmission Project*, Docket No.: ET2/TL-09-38, Petition to Intervene City of Minneapolis (July 31, 2009).

¹⁴ *In the Matter of the Route Permit Application for a High Voltage Transmission Line Route Permit for the Hiawatha Transmission Project*, Docket No.: ET2/TL-09-38, ALJ First Prehearing Order (August 11, 2009), eDocket Document No. 20098-40668-01.

¹⁵ Ex. 137 (Summary of Work: Hiawatha HVTL ATF).

¹⁶ *In the Matter of the Route Permit Application for a High Voltage Transmission Line Route Permit for the Hiawatha Transmission Project*, Docket No.: ET2/TL-09-38, Petition to Intervene Hennepin County (September 1, 2009).

¹⁷ Ex. 138 (EIS Scoping Decision).

¹⁸ *In the Matter of the Route Permit Application for a High Voltage Transmission Line Route Permit for the Hiawatha Transmission Project*, Docket No.: ET2/TL-09-38, Order Granting Intervention to Hennepin County (September 14, 2009).

19. On September 29, 2009 the ALJ issued an order granting the Petition for Intervention of Little Earth.²⁰

20. On September 30, 2009, LCC filed a petition to intervene as a full party under Minn. R. 1400.6200.²¹

21. On October 9, 2009, the ALJ issued an order granting the Petition for Intervention of LCC.²²

22. On October 19, 2009, Hennepin County filed an evidentiary motion requesting: 1) the ALJ allow evidence regarding the cost of the Project if routed underground, and whether the Project is a standard or special facility if routed underground; and 2) the ALJ determine the Commission lack jurisdiction to make rulings regarding Xcel Energy's eminent domain power over government property and not admit evidence relevant to that issue.²³ Xcel Energy²⁴ and MGC²⁵ replied to

¹⁹ *In the Matter of the Route Permit Application for a High Voltage Transmission Line Route Permit for the Hiawatha Transmission Project*, Docket No.: ET2/TL-09-38, Petition to Intervene Little Earth of United Tribes (September 17, 2009).

²⁰ *In the Matter of the Route Permit Application for a High Voltage Transmission Line Route Permit for the Hiawatha Transmission Project*, Docket No.: ET2/TL-09-38, Order Granting Intervention to Little Earth of United Tribes (September 29, 2009).

²¹ *In the Matter of the Route Permit Application for a High Voltage Transmission Line Route Permit for the Hiawatha Transmission Project*, Docket No.: ET2/TL-09-38, Petition to Intervene Longfellow Community Council (September 30, 2009).

²² *In the Matter of the Route Permit Application for a High Voltage Transmission Line Route Permit for the Hiawatha Transmission Project*, Docket No.: ET2/TL-09-38, Order Granting Intervention to Longfellow Community Council (October 9, 2009).

²³ *In the Matter of the Route Permit Application for a High Voltage Transmission Line Route Permit for the Hiawatha Transmission Project*, Docket No.: ET2/TL-09-38, Hennepin County's Evidentiary Motion (October 19, 2009).

²⁴ *In the Matter of the Route Permit Application for a High Voltage Transmission Line Route Permit for the Hiawatha Transmission Project*, Docket No.: ET2/TL-09-38, Xcel Energy's Response to Hennepin County's Evidentiary Motion (November 2, 2009).

²⁵ *In the Matter of the Route Permit Application for a High Voltage Transmission Line Route Permit for the Hiawatha Transmission Project*, Docket No.: ET2/TL-09-38, Midtown Greenway Coalition's Response to Hennepin County's Evidentiary Motion (November 2, 2009).

Hennepin County's motion on November 2, 2009, and City of Minneapolis²⁶ replied to Hennepin County's motion on November 3, 2009.

23. On November 13, 2009, the ALJ granted Hennepin County's request to "accept evidence and make findings concerned the added costs of placing the proposed transmission line underground" The ALJ also allowed the parties to present evidence and legal argument regarding treatment of the Project as a standard or special facility. The ALJ granted in part and denied in part Hennepin County's request that the ALJ determine the Commission lacks jurisdiction to make rulings or factual findings on the issue of Xcel Energy's right of eminent domain over public property. The ALJ held that she "will not make a recommendation concerning the Xcel Energy's power to condemn publicly-owned property, but the parties may offer evidence and legal argument on the impact that each alternative may have on the pre-existing use and planned future use of public property."²⁷

24. On December 7, 2009, the ALJ issued the Revised Scheduling Order amending the schedule set forth in the First Prehearing Order. The Revised Scheduling Order established January 20, 2010, as the deadline for a party to intervene; February 18, 2010, as the deadline for filing Direct Testimony; March 15, 2010, as the deadline for filing Rebuttal Testimony; March 26, 2010, as the deadline for filing Surrebuttal Testimony; April 5, 2010, and April 6, 2010, as the dates for the public hearings; April 12, 2010, as the date for starting the evidentiary hearing; and April 28, 2010, as the deadline for submitting public comments.²⁸

25. On December 14, 2009, SNG filed a petition to intervene as a full party under Minn. R. 1400.6200.²⁹

26. On December 23, 2009, CNO filed a petition to intervene as a full party under Minn. R. 1400.6200.³⁰

²⁶ *In the Matter of the Route Permit Application for a High Voltage Transmission Line Route Permit for the Hiawatha Transmission Project*, Docket No.: ET2/TL-09-38, City of Minneapolis's Response to Hennepin County's Evidentiary Motion (November 3, 2009).

²⁷ *In the Matter of the Route Permit Application for a High Voltage Transmission Line Route Permit for the Hiawatha Transmission Project*, Docket No.: ET2/TL-09-38, Order Addressing Hennepin County's Evidentiary Motion Dated October 19, 2009 (November 3, 2009).

²⁸ *In the Matter of the Route Permit Application for a High Voltage Transmission Line Route Permit for the Hiawatha Transmission Project*, Docket No.: ET2/TL-09-38, ALJ Revised Scheduling Order (December 7, 2009).

²⁹ *In the Matter of the Route Permit Application for a High Voltage Transmission Line Route Permit for the Hiawatha Transmission Project*, Docket No.: ET2/TL-09-38, Petition to Intervene Seward Neighborhood Group, Incorporated (December 14, 2009).

27. On January 5, 2010, the ALJ issued an order granting the Petitions for Intervention of SNG and CNO.³¹

28. On January 6, 2010, Phillips West Neighborhood Organization filed a petition to intervene as a full party under Minn. R. 1400.6200.³²

29. On January 8, 2010, OES issued the Draft EIS (“DEIS”).

30. On January 14, 2010, the ALJ issued an order granting the Petition for Intervention of Phillips West Neighborhood Organization,³³ and Wells Fargo filed a petition to intervene as a full party under Minn. R. 1400.6200.³⁴

31. On January 20, 2010, MPNAI and EPIC each filed a petition to intervene as a full party under Minn. R. 1400.6200.³⁵

32. On January 22, 2010, the ALJ issued an order granting the Petition for Intervention of Wells Fargo.³⁶

³⁰ *In the Matter of the Route Permit Application for a High Voltage Transmission Line Route Permit for the Hiawatha Transmission Project*, Docket No.: ET2/TL-09-38, Petition to Intervene Corcoran Neighborhood Organization (December 23, 2009).

³¹ *In the Matter of the Route Permit Application for a High Voltage Transmission Line Route Permit for the Hiawatha Transmission Project*, Docket No.: ET2/TL-09-38, Order Granting Intervention to Seward Neighborhood Group, Incorporated and Corcoran Neighborhood Organization (January 5, 2010).

³² *In the Matter of the Route Permit Application for a High Voltage Transmission Line Route Permit for the Hiawatha Transmission Project*, Docket No.: ET2/TL-09-38, Petition to Intervene Phillips West Neighborhood Organization (January 6, 2010).

³³ *In the Matter of the Route Permit Application for a High Voltage Transmission Line Route Permit for the Hiawatha Transmission Project*, Docket No.: ET2/TL-09-38, Order Granting Intervention to Phillips West Neighborhood Organization (January 14, 2010).

³⁴ *In the Matter of the Route Permit Application for a High Voltage Transmission Line Route Permit for the Hiawatha Transmission Project*, Docket No.: ET2/TL-09-38, Petition to Intervene Wells Fargo Bank National Association (January 14, 2010).

³⁵ *In the Matter of the Route Permit Application for a High Voltage Transmission Line Route Permit for the Hiawatha Transmission Project*, Docket No.: ET2/TL-09-38, Petition to Intervene Midtown Phillips Neighborhood Association, Inc. (January 20, 2010); *In the Matter of the Route Permit Application for a High Voltage Transmission Line Route Permit for the Hiawatha Transmission Project*, Docket No.: ET2/TL-09-38, Petition to Intervene East Phillips Improvement Coalition (January 20, 2010).

³⁶ *In the Matter of the Route Permit Application for a High Voltage Transmission Line Route Permit for the Hiawatha Transmission Project*, Docket No.: ET2/TL-09-38, Order Granting Intervention to Wells Fargo (January 22, 2010).

33. On January 29, 2010, the ALJ issued an order granting the Petitions for Intervention of MPNAI and EPIC.³⁷

34. On February 1, 2010, the ALJ issued the Second Prehearing Order and Schedule Revisions amending the schedule set forth in the Revised Scheduling Order. The Second Prehearing Order established May 11, 2010, as the deadline for submitting public comments.³⁸

35. On February 18, 2010, Xcel Energy filed Direct Testimony by Betty Mirzayi,³⁹ RaeLynn Asah,⁴⁰ William E. Stark,⁴¹ Andrew Bielakowski,⁴² Benjamin Gallay,⁴³ Susan McNelly,⁴⁴ Scott Zima,⁴⁵ Jason Standing⁴⁶ and Paul Lehman.⁴⁷

36. On February 18, 2010, Intervenor MGC filed Direct Testimony by Tim Springer.⁴⁸

37. On February 18, 2010, Intervenor City of Minneapolis filed Direct Testimony by Karin Berkholtz,⁴⁹ Paul Ogren,⁵⁰ Jack Byers⁵¹ and Paul Mogush.⁵²

³⁷ *In the Matter of the Route Permit Application for a High Voltage Transmission Line Route Permit for the Hiawatha Transmission Project*, Docket No.: ET2/TL-09-38, Order Granting Intervention to Midtown Phillips Neighborhood Association, and East Phillips Improvement Coalition (January 29, 2010).

³⁸ *In the Matter of the Route Permit Application for a High Voltage Transmission Line Route Permit for the Hiawatha Transmission Project*, Docket No.: ET2/TL-09-38, ALJ Second Prehearing Order and Schedule Revisions (February 1, 2010).

³⁹ Ex. 8 (Mirzayi Direct).

⁴⁰ Ex. 10 (Asah Direct).

⁴¹ Ex. 13 (Stark Direct).

⁴² Ex. 16 (Bielakowski Direct).

⁴³ Ex. 18 (Gallay Direct).

⁴⁴ Ex. 20 (McNelly Direct).

⁴⁵ Ex. 23 (Zima Direct).

⁴⁶ Ex. 26 (Standing Direct).

⁴⁷ Ex. 27 (Lehman Direct).

⁴⁸ Ex. 36 (Springer Direct).

⁴⁹ Ex. 92 (Berkholtz Direct).

⁵⁰ Ex. 94 (Ogren Direct).

⁵¹ Ex. 96 (Byers Direct).

⁵² Ex. 97 (Mogush Direct).

38. On February 18, 2010, Intervenor Crew2 filed Direct Testimony by Perry Firkus,⁵³ Joy Evangelist⁵⁴ and Daniel H. Wilson.⁵⁵

39. On February 18, 2010, Intervenor Hennepin County filed Direct Testimony by Peter McLaughlin,⁵⁶ Dean Michalko,⁵⁷ Larry Schedin,⁵⁸ Greg Mathis⁵⁹ and Steve Cramer.⁶⁰

40. On February 18, 2010, Intervenor LCC filed Direct Testimony by Eric Hart.⁶¹

41. On February 18, 2010, Intervenor Wells Fargo filed Direct Testimony by Janet Olson.⁶²

42. On February 18, 2010, Intervenor CNO filed Direct Testimony by Eric Gustafson.⁶³

43. On February 19, 2010, Intervenor Little Earth filed Direct Testimony by Lori Ellis.⁶⁴

44. On February 22, 2010, Intervenor MPNAI filed Direct Testimony by Shirley Heyer.⁶⁵

45. On February 22, 2010, Intervenor EPIC filed Direct Testimony by Carol Ann Pass.⁶⁶

⁵³ Ex. 98 (Firkus Direct).

⁵⁴ Ex. 99 (Evangelist Direct).

⁵⁵ Ex. 100 (Wilson Direct).

⁵⁶ Ex. 102 (McLaughlin Direct).

⁵⁷ Ex. 105 (Michalko Direct).

⁵⁸ Ex. 109 (Schedin Direct).

⁵⁹ Ex. 113 (Mathis Direct).

⁶⁰ Ex. 117 (Cramer Direct).

⁶¹ Ex. 118 (Hart Direct).

⁶² Ex. 127 (Olson Direct).

⁶³ Ex. 152 (Gustafson Direct).

⁶⁴ Ex. 203 (Ellis Direct).

⁶⁵ Ex. 178 (Heyer Direct).

⁶⁶ Ex. 149 (Pass Direct).

46. On March 1, 2010, Intervenor Crew2 filed Direct Testimony by Gary Nordness.⁶⁷

47. On March 11, 2010, Zimmer Davis filed a Petition for Late Intervention as a full party under Minnesota Rule 1400.6200⁶⁸ and Direct Testimony by Tom Davis.⁶⁹

48. On March 15, 2010, OES issued its Notice of Public Hearings.⁷⁰

49. On March 15, 2010, ALJ issued an order granting the Petition for Late Intervention of Zimmer Davis.⁷¹

50. On March 15, 2010, Xcel Energy filed Rebuttal Testimony by RaeLynn Asah,⁷² Benjamin Gallay,⁷³ William E. Stark,⁷⁴ Susan McNelly,⁷⁵ Scott Zima⁷⁶ and Andrew P. Bielakowski.⁷⁷

51. On March 15, 2010, Intervenor Hennepin County filed Rebuttal Testimony by Greg Mathis,⁷⁸ Larry Schedin⁷⁹ and Dean Michalko.⁸⁰

⁶⁷ Ex. 101 (Nordness Direct).

⁶⁸ *In the Matter of the Route Permit Application for a High Voltage Transmission Line Route Permit for the Hiawatha Transmission Project*, Docket No.: ET2/TL-09-38, Petition to Intervene Midtown Phillips Neighborhood Association, Inc. (January 20, 2010); *In the Matter of the Route Permit Application for a High Voltage Transmission Line Route Permit for the Hiawatha Transmission Project*, Docket No.: ET2/TL-09-38, Petition for Late Intervention Zimmer Davis (March 11, 2010).

⁶⁹ Ex. 130 (Davis Direct).

⁷⁰ Ex. 145 (OES Notice of Public Hearings).

⁷¹ *In the Matter of the Route Permit Application for a High Voltage Transmission Line Route Permit for the Hiawatha Transmission Project*, Docket No.: ET2/TL-09-38, Order Granting Intervention to Zimmer Davis (March 15, 2010).

⁷² Ex. 11 (Asah Rebuttal).

⁷³ Ex. 19 (Gallay Rebuttal).

⁷⁴ Ex. 14 (Stark Rebuttal).

⁷⁵ Ex. 21 (McNelly Rebuttal).

⁷⁶ Ex. 24 (Zima Rebuttal).

⁷⁷ Ex. 17 (Bielakowski Rebuttal).

⁷⁸ Ex. 114 (Mathis Rebuttal).

⁷⁹ Ex. 110 (Schedin Rebuttal).

⁸⁰ Ex. 106 (Michalko Rebuttal).

52. On March 15, 2010, Intervenor City of Minneapolis filed Rebuttal Testimony by Karin Berkholtz.⁸¹

53. On March 15, 2010, Intervenor Wells Fargo filed Rebuttal Testimony by Janet Olson.⁸²

54. On March 25, 2010, ALJ issued an order amending the Second Prehearing Order and Schedule Revisions to allow the filing of a cultural effects report by Xcel Energy's witness William Stark by March 26, 2010 and rebuttal to Mr. Stark's testimony and report by April 9, 2010.⁸³

55. On March 26, 2010, Xcel Energy filed Surrebuttal Testimony by RaeLynn Asah,⁸⁴ Susan McNelly,⁸⁵ William E. Stark⁸⁶ and Scott Zima.⁸⁷

56. On March 26, 2010, Intervenor City of Minneapolis filed Surrebuttal Testimony by Karin Berkholtz⁸⁸ and Paul Ogren.⁸⁹

57. On March 26, 2010, Intervenor Hennepin County filed Surrebuttal Testimony by Greg Mathis,⁹⁰ Larry Schedin,⁹¹ Peter McLaughlin⁹² and Dean Michalko.⁹³

58. On March 26, 2010, Intervenor MGC filed Surrebuttal Testimony by Tim Springer.⁹⁴

⁸¹ Ex. 92 (Berkholtz Rebuttal).

⁸² Ex. 128 (Olson Rebuttal).

⁸³ *In the Matter of the Route Permit Application for a High Voltage Transmission Line Route Permit for the Hiawatha Transmission Project*, Docket No.: ET2/TL-09-38, Order Extending Schedule for Testimony of Will Stark (March 25, 2010).

⁸⁴ Ex. 12 (Asah Surrebuttal).

⁸⁵ Ex. 22 (McNelly Surrebuttal).

⁸⁶ Ex. 15 (Stark Surrebuttal).

⁸⁷ Ex. 25 (Zima Surrebuttal).

⁸⁸ Ex. 93 (Berkholtz Surrebuttal).

⁸⁹ Ex. 95 (Ogren Surrebuttal).

⁹⁰ Ex. 115 (Mathis Surrebuttal).

⁹¹ Ex. 111 (Schedin Surrebuttal).

⁹² Ex. 103 (McLaughlin Surrebuttal).

⁹³ Ex. 107 (Michalko Surrebuttal).

59. On March 26, 2010, Intervenor Zimmer Davis filed Surrebuttal Testimony by Tom Davis.⁹⁵

60. On March 29, 2010, the ALJ issued an Order to Show Cause establishing April 2, 2010, as a deadline for the Seward Neighborhood Group, Inc. and Phillips West Neighborhood Organization to “file a statement explaining why it should not be dismissed as a party, or notifying the undersigned of its intention to withdraw as a party.”⁹⁶

61. On April 1, 2010, Intervenor Phillips West Neighborhood Organization filed a motion to withdraw as a party.⁹⁷

62. On April 2, 2010, Intervenor SNG filed a statement explaining why it should not be dismissed as a party.⁹⁸

63. On April 5, 2010, Intervenor MPNAI filed Amended and Appended Direct Testimony by Shirley Heyer.⁹⁹

64. On April 5 to April 6, 2010, four Public Hearings were held at Plaza Verde, 1516 East Lake Street, Minneapolis, Minnesota 55407.

65. On April 6, 2010, ALJ issued an order dismissing Phillips West Neighborhood Organization as a party.¹⁰⁰

⁹⁴ Ex. 60 (Springer Surrebuttal).

⁹⁵ Ex. 131 (Davis Surrebuttal).

⁹⁶ *In the Matter of the Route Permit Application for a High Voltage Transmission Line Route Permit for the Hiawatha Transmission Project*, Docket No.: ET2/TL-09-38, Notice and Order to Show Cause – Seward Neighborhood Group Inc., and Phillips West Neighborhood Organization (March 29, 2010).

⁹⁷ *In the Matter of the Route Permit Application for a High Voltage Transmission Line Route Permit for the Hiawatha Transmission Project*, Docket No.: ET2/TL-09-38, Phillips West Neighborhood Organization Motion to Withdraw (April 1, 2010).

⁹⁸ *In the Matter of the Route Permit Application for a High Voltage Transmission Line Route Permit for the Hiawatha Transmission Project*, Docket No.: ET2/TL-09-38, Letter from Seward Neighborhood Group Inc. (April 2, 2010).

⁹⁹ Ex. 178 (Heyer Amended Direct Testimony).

¹⁰⁰ *In the Matter of the Route Permit Application for a High Voltage Transmission Line Route Permit for the Hiawatha Transmission Project*, Docket No.: ET2/TL-09-38, Order Dismissing Phillips West Neighborhood Organization as a Party (April 6, 2010).

66. On April 9, 2010, Intervenor City of Minneapolis filed Surrebuttal Testimony by Jack Byers.

67. On April 12, 2010, Intervenor Hennepin County filed Supplemental Rebuttal Testimony by Greg Mathis.

68. On April 13, 2010, Intervenor City of Minneapolis filed Supplemental Direct Testimony by Paul Mogush.

69. On April 26, 2010, Intervenor SNG filed Direct Testimony by Sheldon Mains.

70. On April 27, 2010, Intervenor EPIC filed Direct Testimony by Karen Clark.

71. From April 12 to April 30, 2010, the Evidentiary Hearing was held in the Commission's large and small hearing rooms in St. Paul, Minnesota.

72. On June 7, 2010, OES issued the Final EIS ("FEIS").¹⁰¹

II. DESCRIPTION OF THE HIAWATHA PROJECT

73. The Project is proposed to meet growing demand for electricity in south Minneapolis, which includes the Project Area,¹⁰² caused by population growth, increased load density, and economic development in the area resulting from major revitalization efforts in the Midtown District.¹⁰³

74. The Project consists of two 115 kV transmission lines and two new substations.¹⁰⁴

75. The 115 kV transmission lines will be approximately 1.4 to 3-miles long (depending on the route approved), running from Hiawatha Avenue to Oakland Avenue in South Minneapolis, Minnesota in an area known as the Midtown District and will connect the two new proposed substations, Hiawatha Substation and Midtown Substation.¹⁰⁵

¹⁰¹ FEIS, eDocket Document No. 20106-51326-01 (June 7, 2010).

¹⁰² The Project Area is bordered by 26th Avenue South on the east, Interstate 35W ("I-35W") on the west, East 31st Street to the south and East 26th Street on the north ("Project Area").

¹⁰³ Ex. 1A at 1 (Application); Ex. 1B at Appendix D (Application Appendices).

¹⁰⁴ Ex. 1A at 1 (Application).

¹⁰⁵ Ex. 1A at 3 (Application); Ex. 10 at Schedule 3 (Asah Direct).

76. The Hiawatha Substation would be located at the eastern terminus of the Project.¹⁰⁶

77. The Hiawatha Substation will initially consist of: (1) a prefabricated concrete wall¹⁰⁷ with non-tag friendly design appropriate to the area; (2) landscaping around the four concrete walled sides of the substation; (3) a gate and driveway along one side of the substation; (4) four 115 kV transmission line dead-end structures and related substation equipment and structures (an additional two dead-end structures would be required to connect one of the lines into the correct electrical position in the substation, and one for the transformer termination); (5) one 13.8 kV transformer termination structure; (6) one 50 MVA, 118-14.4 kV, Load Tap Changer (“LTC”) distribution transformer; (7) one switchgear enclosure containing six 13.8 kV distribution feeders with associated equipment; and (8) one electrical equipment enclosure containing all electrical controls, protective relaying and auxiliary equipment for the operation of the substation.¹⁰⁸

78. The Midtown Substation would be located at the western terminus of the Project.¹⁰⁹

79. The Midtown Substation located on the Midtown North site will initially consist of: (1) a prefabricated concrete wall, approximately 20 feet high, with non-tag friendly design appropriate to the area along all sides of the substation; (2) landscaping on the south, east and west sides as practical; (3) a driveway on the east and west sides of the substation; (4) two 115 kV transmission line steel box structures and related substation equipment and structures; (5) one 70 MVA, 118-14.4 kV, LTC distribution transformer; and (6) one electrical equipment enclosure initially containing 13.8 kV distribution feeders with associated equipment, all electrical controls, protective relaying and auxiliary equipment for the operation of the substation.¹¹⁰

¹⁰⁶ Ex. 1A at 5 (Application).

¹⁰⁷ McNelly 6 Vol. 101. The Hiawatha Substation with a low-profile design would be constructed with 12-foot high architecturally-designed and graffiti-resistant walls. Ex. 20 at 6 (McNelly Direct). The Hiawatha Substation with a high-profile design would be constructed with 20-foot high architecturally-designed and graffiti-resistant walls. See McNelly 6 Vol. 100-101; Asah 13 Vol. 70-72.

¹⁰⁸ Ex. 20 at 6-7 (McNelly Direct).

¹⁰⁹ Ex. 1A at 5 (Application).

¹¹⁰ Ex. 20 at 9-10 (McNelly Direct).

III. TRANSMISSION LINE ROUTES PROPOSED IN THE APPLICATION

80. Xcel Energy identified four routes and five design options for the Project: Route A (overhead and underground), Route B (overhead only), Route C (overhead only) and Route D (underground only).¹¹¹

81. Xcel Energy developed and selected these routes over a period of more than a year and with substantial input from multiple meetings with landowners, lawmakers and other stakeholders.¹¹² Throughout the process, Xcel Energy evaluated several route alternatives, considering feedback gathered at six public open house meetings and received through written comments.¹¹³ To identify potential routes, Xcel Energy gathered environmental data, collected public comments and applied the factors listed in Minn. R. 7849.5910.¹¹⁴ Xcel Energy placed emphasis on minimizing impacts to human settlement, minimizing the potential for construction challenges, locating the facilities in close proximity to the geographic area of need, and cost-effectiveness.¹¹⁵

82. In the Application and during this proceeding, Xcel Energy has stated that its preferred route is Route A, along any of the three proposed alignments, between the Hiawatha West and Midtown North substation sites.¹¹⁶ Route A begins on the east side of the Hiawatha West Substation site and then crosses Hiawatha Avenue and continues parallel to East 28th Street, near Minneapolis Pioneers and Soldiers Memorial Cemetery and heads west along 29th Street for approximately 1.4 miles. The lines would connect to a new Midtown Substation at the Midtown North site at the corner of Oakland Avenue and 29th Street. The three proposed alignments for Route A include an overhead alignment (Route A—Alignment A1) and an underground alignment (Route A—Alignment A2) that would be located primarily along 29th Street, outside the Midtown Greenway. The third alignment is an underground alignment (Route A—Alignment A3) within the Midtown Greenway, primarily along the edge of the northern earthen slope.¹¹⁷

¹¹¹ Ex. 1A at 3-4(Application).

¹¹² Ex. 1A at 21 (Application).

¹¹³ Ex. 1A at 21 (Application).

¹¹⁴ Ex. 1A at 21 (Application).

¹¹⁵ Ex. 1A at 22 (Application).

¹¹⁶ Ex. 10 at 10 (Asah Direct).

¹¹⁷ Hennepin County suggested Route A—Alignment A3. (Ex. 10 at 7 (Asah Direct)).

83. Route B would require the construction of two separate overhead 115 kV transmission lines.¹¹⁸ One transmission line would be constructed along 26th Street between Hiawatha West and Midtown North substation sites.¹¹⁹ The second line would follow East 28th Street.¹²⁰ The estimated route lengths of the two lines are 1.8 and 1.4 miles.¹²¹

84. Route C also requires two separate overhead 115 kV transmission lines. One would be along East 28th Street between the Hiawatha West and Midtown North substation sites. The second line would parallel 31st Street.¹²² The estimated route lengths of the two lines are 1.5 and 2.3 miles.¹²³

85. Route D is an underground 115 kV double circuit design along the northern half of East 28th Street between Hiawatha West and Midtown North.¹²⁴

IV. TRANSMISSION LINE ROUTES CONSIDERED IN THE DRAFT ENVIRONMENTAL IMPACT STATEMENT

86. The ATF identified another route for consideration in the DEIS, Route E2, in addition to the four routes proposed by the Xcel Energy.¹²⁵

87. Route E2 is an approximately 3.2 miles long route with overhead 115 kV double circuit transmission line construction.¹²⁶ Route E2 was proposed by the ATF to exit the new Hiawatha Substation, follow Highway 55 north to Interstate 94 where it then turns west and follows Interstate 94 to Interstate 35W where it then turns south and follow Interstate 35W to near 28th Street where it then turns east and follows 28th Street to the Midtown Substation.¹²⁷

¹¹⁸ Ex. 1A at 35 (Application); Ex. 10 at 8 (Asah Direct).

¹¹⁹ Ex. 1A at 35 (Application); Ex. 10 at 8 (Asah Direct).

¹²⁰ Ex. 1A at 35 (Application); Ex. 10 at 8 (Asah Direct).

¹²¹ Ex. 1A at 35 (Application); Ex 10 at Schedule 3 (Asah Direct).

¹²² Ex. 1A at 37 (Application); Ex 10 at 8-9 (Asah Direct).

¹²³ Ex. 1A at 37 (Application); Ex. 10 at Schedule 3 (Asah Direct).

¹²⁴ Ex. 10 at 9 (Asah Direct).

¹²⁵ Ex. 138 at 2 (EIS Scoping Decision).

¹²⁶ Ex. 10 at 9 (Asah Direct); FEIS at 5, eDocket Document No. 20106-51326-01 (June 7, 2010).

¹²⁷ Ex. 137 at 11 (ATF Report); Ex. 10 at 9 (Asah Direct).

88. In addition, at the request of Hennepin County, Xcel Energy also analyzed an underground alignment within the Midtown Greenway (Route A—Alignment A3).¹²⁸

V. TRANSMISSION LINE STRUCTURE TYPES, SPANS AND UNDERGROUND CONSTRUCTION

89. For overhead routes A—Alignment A1 and E2, Xcel Energy proposes to use galvanized, self-weathering/rust-colored steel double circuit structures with davit arms.¹²⁹ For overhead routes B and C, Xcel Energy proposes to use single circuit structures with davit arm and distribution underbuild fixtures.¹³⁰ For areas where the Project will cross existing and future light rail, auto and pedestrian paths, custom designed structures will be used.¹³¹

90. Average spans between structures will be approximately 500 feet.¹³² However, span lengths may vary between structures from as short as 300 feet to as long as 1,000 feet to accommodate existing and future plans for the area, such as future transit within the Midtown Greenway.¹³³

91. If Routes A-Alternative A2, A-Alternative A3 or D is selected, Xcel Energy proposes to install two identical concrete duct banks containing four 6-inch polyvinyl chloride (“PVC”) conduits for the transmission circuits, and two 2-inch PVC conduits for ground continuity and communication needs.¹³⁴ The duct banks are anticipated to be installed adjacent to each other in the same trench unless a different design is dictated by the physical limitations of the route.¹³⁵

92. Cable vaults with manhole access will be required approximately every 1,500 feet and at major changes in direction in the route to facilitate the installation of the cable as well as for future inspection and repairs.¹³⁶

¹²⁸ Ex. 10 at 5 (Asah Direct); Michalko 9 Vol. 81.

¹²⁹ Ex. 18 at 4 (Gallay Direct); Gallay 4 Vol. 117-18.

¹³⁰ Ex. 18 at 4 (Gallay Direct)

¹³¹ Ex. 18 at 4-5 (Gallay Direct).

¹³² Ex. 18 at 5 (Gallay Direct).

¹³³ Ex. 18 at 5 (Gallay Direct); Ex. 19 at 4 (Gallay Rebuttal).

¹³⁴ Ex. 1A at 55 (Application).

¹³⁵ Ex. 1A at 55 (Application); Ex. 18 at 8 (Gallay Direct).

¹³⁶ Ex. 1A at 55 (Application); Ex. 18 at 8 (Gallay Direct).

93. Construction of underground transmission line facilities, if selected for the Project, would be performed by installing concrete encased duct bank raceway system in an open cut trench.¹³⁷ The open cut trenching method is readily adaptable to various field conditions so long as sufficient space exists to conduct the open cut trenching operation.¹³⁸ Using this method, a spare duct can sometimes be installed to allow future installation of additional circuit cables.¹³⁹ The Project would include the construction of one extra duct that could be used to install a new cable if one of the originally-installed cables fails; a spare cable would not be installed at the time of construction.¹⁴⁰

94. At crossings of Hiawatha Avenue or the Metro Transit Hiawatha Light Rail Line, horizontal direct drilling (“HDD”) would be used if underground construction is selected.¹⁴¹ HDD installation involves boring a single hole for each conductor followed by the installation of a conduit or pipe.¹⁴² The two double circuit 115 kV transmission line would require six borings (one for each of the six conductors) plus and additional boring and installation of an additional spare conduit.¹⁴³ Adequate space must be available to allow HDD rigs to set up for installation.¹⁴⁴ HDD installations have the least environmental impact of any underground installation method proposed for the Project.¹⁴⁵ This method of installation (HDD) is more costly than using the open cut trench method.¹⁴⁶

VI. TRANSMISSION LINE CONDUCTORS

95. For the overhead designs, Xcel Energy proposes to use 795 kcmil, 26/7 Aluminum Conductor Steel Reinforced (“ACSR”) cables or conductors of comparable capacity per phase.¹⁴⁷

¹³⁷ Ex. 1A at 57 (Application).

¹³⁸ Ex. 1A at 57 (Application).

¹³⁹ Ex. 1A at 58 (Application).

¹⁴⁰ Ex. 1A at 58 (Application); Ex. 18 at 8 (Gallay Rebuttal).

¹⁴¹ Ex. 1A at 58 (Application); Ex. 18 at 8 (Gallay Direct).

¹⁴² Gallay 4 Vol. 115.

¹⁴³ Gallay 4 Vol. 115.

¹⁴⁴ Ex. 1A at 58 (Application).

¹⁴⁵ Ex. 1A at 58 (Application).

¹⁴⁶ Ex. 1A at 58 (Application).

¹⁴⁷ Ex. 1A at 42 and Table 6 (Application); Ex. 18 at 6 (Gallay Direct).

96. For the underground designs, Xcel Energy proposes to use a high voltage extruded dielectric (“HVED”) cable, 3000 kcmil copper cross-linked polyethylene type or conductors of comparable capacity.¹⁴⁸ HVED cable consists of stranded copper conductor surrounded by a solid electrostatic conductor shield and insulation.¹⁴⁹ The outermost layers consist of an insulation shield and moisture block and cable shield covered by a layer of polyethylene protective jacket.¹⁵⁰

VII. TRANSMISSION LINE ROUTE WIDTHS

97. Xcel Energy has requested a 200-foot route width for Route A to provide flexibility to construct the facilities on either side of 29th Street or within the Midtown Greenway.¹⁵¹ If Route B or C is selected, an 80-foot route width is requested.¹⁵² If Route D is selected, a route width of 80 feet is requested.¹⁵³ If Route E2 is selected, a route width of 970 feet is requested.¹⁵⁴

VIII. TRANSMISSION LINE RIGHT-OF-WAY

98. The right-of-way required for the double-circuit overhead design for Route A—Alignment A1 and Route E2 is 50 feet or 25 feet on each side of the structure.¹⁵⁵

99. The amount of right-of-way required for the underground design for Route A—Alignment A2 and A3 and Route D is 30 feet, or 15 feet on each side of the transmission line centerline.¹⁵⁶

100. Both Routes B and C will be constructed on single circuit structures with a cantilevered design that will place the conductors over the street side of these routes.¹⁵⁷ NESC requirements call for a minimum of 25 feet of right-of-way on the

¹⁴⁸ Ex. 1A at 55 (Application); Ex. 18 at 9 (Gallay Direct).

¹⁴⁹ Ex. 18 at 9 (Gallay Direct).

¹⁵⁰ Ex. 18 at 9 (Gallay Direct).

¹⁵¹ Ex. 10 at 9 (Asah Direct).

¹⁵² Ex. 1A at 6 (Application); Ex. 10 at p. 9 (Asah Direct).

¹⁵³ Ex. 10 at 9 (Asah Direct).

¹⁵⁴ Ex. 10 at 9 (Asah Direct)

¹⁵⁵ Gallay 13 Vol. 12; Ex. 172 (Four Diagrams of Pole-Structure Design).

¹⁵⁶ Ex. 18 at 10 (Gallay Direct).

¹⁵⁷ Ex. 1A at 35, 37 (Application); Ex. 172 (Four Diagrams of Pole-Structure Design); Asah 7 Vol. 81-82.

conductor or street side of these structures.¹⁵⁸ Xcel Energy will seek to acquire a right-of-way up to 50-feet, 25-feet on either side of the transmission structure, for access and maintenance of the structures.¹⁵⁹

IX. PROJECT SCHEDULE

101. Due to changes made during the 2010 Legislative session, a Certificate of Need is now required for the Hiawatha Project.¹⁶⁰

102. Xcel Energy provided revised project schedules that analyze this new regulatory requirement.¹⁶¹

103. In light of the Certificate of Need requirement, Xcel Energy expects to begin construction of the Project in the second quarter of 2012.¹⁶²

104. Xcel Energy expects to complete the Project by the second quarter of 2013 with a potential that the Project may be delayed beyond system peak in 2013.¹⁶³

X. PROJECT COSTS

105. The total cost of the Project, which includes materials, construction, right-of-way acquisition, site preparation and Project management, is dependent, in significant part, on the length of the transmission lines facilities.¹⁶⁴ The total cost for transmission and substation facilities are estimated to be between approximately \$28 million and \$41 million.¹⁶⁵ This estimate is subject to change as it can be affected considerably by several variables such as the timing of construction, availability of construction crews and components, and the final route selected by the Commission.¹⁶⁶

¹⁵⁸ Asah 7 Vol. 83; Gallay 13 Vol. 12-13.

¹⁵⁹ Asah 2 Vol. 197.

¹⁶⁰ 2010 Minn. Laws, ch. 361, art. 5, sec. 19 (Effective Date: May 18, 2010).

¹⁶¹ Ex. 9 (Impact of Certificate of Need Requirement on Hiawatha Project Schedule).

¹⁶² Ex. 9 (Impact of Certificate of Need Requirement on Hiawatha Project Schedule); Mirzayi 1 Vol. 53.

¹⁶³ Ex. 9 (Impact of Certificate of Need Requirement on Hiawatha Project Schedule); Mirzayi 1 Vol. 53.

¹⁶⁴ Ex. 18 at 10 (Gallay Direct).

¹⁶⁵ Ex. 18 at 11 (Gallay Direct)

¹⁶⁶ Gallay 4 Vol. 10-11.

XI. SUBSTATIONS

106. Xcel Energy has proposed a preferred and alternative location for both the Hiawatha Substation and Midtown Substation.¹⁶⁷

107. Xcel Energy's preferred Hiawatha substation site ("Hiawatha West") is in an area along the existing 115 kV transmission line located between Hiawatha Avenue to the west, Minnehaha Avenue to the east, and the Soo Line Railroad to the South.¹⁶⁸ The preferred site is currently an open area primarily owned by the Minnesota Department of Transportation ("Mn/DOT") and Mn/DOT has notified Xcel Energy that the Hiawatha West site is surplus property that can be sold.¹⁶⁹ The Hiawatha Substation will be approximately 2.25 acres in size.¹⁷⁰ The Company understands that some arsenic contamination may have been absorbed by the trees planted on the Hiawatha West site.¹⁷¹ Xcel Energy committed to the Minnesota Pollution Control Agency ("MPCA") to develop appropriate plans to address issues identified through soil sampling.¹⁷² An easement over the Zimmer Davis driveway on the south side of that property or on railroad property on Minnehaha Avenue may be required for access to the Hiawatha West site.¹⁷³

108. Xcel Energy proposed two alternate sites for the Hiawatha Substation: Zimmer Davis and Hiawatha East.¹⁷⁴

109. East of the Hiawatha West site is a parcel belonging to Zimmer Davis that is used for a light industrial warehouse, located at 2700 Minnehaha Avenue.¹⁷⁵ The Application discussed the possibility of expanding the Hiawatha Substation to the Zimmer Davis property to accommodate a future 345 kV transmission line.¹⁷⁶ After filing the Application, it was determined that adding a 345 kV transmission line to the

¹⁶⁷ Ex. 1A at § 4.2 (Application); Ex. 10 at 6 (Asah Direct).

¹⁶⁸ Ex. 1A at 24 (Application); Ex. 11 at 2 (Asah Rebuttal).

¹⁶⁹ Ex. 1A at 24 (Application); Ex. 11 at 2 and Schedule 9 at 11 (Asah Rebuttal).

¹⁷⁰ Ex. 1A at 24 (Application).

¹⁷¹ Ex. 11 at 2 (Asah Rebuttal).

¹⁷² Ex. 11 at 2 (Asah Rebuttal).

¹⁷³ Ex. 1A at 25 (Application).

¹⁷⁴ Ex. 11 at 2 (Asah Rebuttal); Ex. 10 at 6 (Asah Direct); Ex. 1A at 27 (Application).

¹⁷⁵ Ex. 1A at 24, 41 (Application).

¹⁷⁶ Ex. 1A at 41 (Application); Ex. 10 at 6 (Asah Direct).

Hiawatha Substation is no longer part of the 10-year transmission planning horizon.¹⁷⁷ The Zimmer Davis site is considered an alternate for the Hiawatha Substation by Xcel Energy.¹⁷⁸ Half of the light industrial warehouse located on the Zimmer Davis property is occupied by the Zimmer Davis business and a lease for the remainder of the space has been executed.¹⁷⁹ Using the Zimmer Davis property for the Hiawatha Substation would require displacing the Zimmer Davis Company and its tenant.¹⁸⁰

110. The Company's other alternate Hiawatha Substation site ("Hiawatha East") is located at 2650 Minnehaha Avenue, northeast of and adjacent to the Hiawatha West site.¹⁸¹

111. The Hiawatha East site is currently occupied by Crew2, a light industrial business.¹⁸² The Hiawatha East site, if selected, would require the relocation of Crew2.¹⁸³

112. Xcel Energy's preferred Midtown Substation site ("Midtown North") is located on an area that includes 2840 Oakland Avenue (former Xcel Energy Oakland Substation site); 2833 Portland Avenue (condemned triplex); and 2841 Portland Avenue (vacant Brown Campbell land, formerly owned by Xcel Energy).¹⁸⁴ The Midtown Substation will be approximately one acre in size.¹⁸⁵

113. 2840 Oakland Avenue and 2841 Portland Ave include a 43-foot slope down to the Midtown Greenway elevation.¹⁸⁶

114. Part of the slope near the Midtown Greenway will be needed for the Midtown North site and may require a retaining wall.¹⁸⁷ The Company is aware there is interest in adding an access point to the Midtown Greenway at the Midtown North

¹⁷⁷ Ex. 10 at 6 (Asah Direct); Ex. 26 at 5 (Standing Direct).

¹⁷⁸ Ex. 11 at 2 (Asah Rebuttal).

¹⁷⁹ Ex. 131 at 1-2 (Davis Surrebuttal). , .

¹⁸⁰ Davis 11 Vol. 23.

¹⁸¹ Ex. 1A at 27 (Application); Ex. 10 at 6 (Asah Direct).

¹⁸² Ex. 1A at 27 (Application); Ex. 10 at 18 (Asah Direct).

¹⁸³ Ex. 10 at 18 (Asah Direct).

¹⁸⁴ Ex. 1A at 29 (Application); Ex. 10 at 19 (Asah Direct).

¹⁸⁵ Ex. 10 at 4 (Asah Direct).

¹⁸⁶ Ex. 1A at 29 (Application); Ex. 10 at 19 (Asah Direct).

¹⁸⁷ Ex. 1A at 30 (Application).

site.¹⁸⁸ Xcel Energy will design the substation wall and layout to allow for a walkway installation along the south side of the wall in response to this interest.¹⁸⁹

115. An abandoned and condemned triplex at 2833 Portland Avenue would have to be removed to utilize the Midtown North site.¹⁹⁰

116. Xcel Energy's alternative Midtown Substation site ("Midtown South") is located across the Midtown Greenway from the Midtown North site at 2907 Portland Avenue and 2915 Portland Avenue.¹⁹¹ These properties are currently owned and occupied by Brown Campbell Enterprises.¹⁹²

117. Existing Brown Campbell Enterprises buildings will need to be demolished and the business relocated to accommodate the Midtown Substation at the Midtown South site.¹⁹³

118. Possible soil contamination at the Midtown South site may require remediation for use of the site.¹⁹⁴

119. Xcel Energy determined that Hiawatha West, Hiawatha East, Zimmer Davis, Midtown North and Midtown South substation sites are technically feasible and prudent.¹⁹⁵

120. Xcel Energy also evaluated five additional substation sites for the Hiawatha Substation and two additional substation sites for the Midtown Substation that were identified by the ATF.¹⁹⁶

121. For a substation site to be feasible, it must be large enough to accommodate all required facilities including, not only the substation equipment, but

¹⁸⁸ Ex. 1A at 30 (Application).

¹⁸⁹ Ex. 1A at 30 (Application).

¹⁹⁰ Ex. 1A at 30 (Application).

¹⁹¹ Ex. 1A at 31 (Application).

¹⁹² Ex. 1A at 31 (Application); Ex. 10 at 19 (Asah Direct).

¹⁹³ Ex. 1A at 31 (Application); Ex. 10 at 19 (Asah Direct).

¹⁹⁴ Ex. 1A at 31 (Application); Ex. 10 at 19 (Asah Direct).

¹⁹⁵ Ex. 20 at 4, 7-9 (McNelly Direct).

¹⁹⁶ Ex. 10 at 19 (Asah Direct); Ex. 20 at 3 (McNelly Direct).

also distribution duct bank systems and overhead or underground transmission lines.¹⁹⁷

122. The G-1 site is very small and constructible substation space may be insufficient.¹⁹⁸ Additionally, the area is constrained for the installation of underground distribution facilities.¹⁹⁹

123. Hiawatha sites G-2 and G-3 were determined to be too small to be feasible.²⁰⁰ The G-2 site does not have adequate space for necessary underground distribution circuits or other facilities.²⁰¹ The G-3 site is too small to accommodate the substation.²⁰²

124. Xcel Energy evaluated the feasibility of Hiawatha G-4 site which is located on the site of the former Hiawatha Substation north of 32nd Street. The site is owned by Xcel Energy and also includes adjacent vacant land owned by Mn/DOT and the Soo Line Railroad. The Soo Line Railroad rail lines adjacent to the Hiawatha G-4 site, including a main line, are currently operated by the railroad as active rail lines.²⁰³ Xcel Energy determined that the site was not feasible because there was inadequate space for transmission and distribution line access and the requisite substation equipment.²⁰⁴

125. The Hiawatha G5 site is a long narrow strip of land adjacent to, and east of Hiawatha Avenue and the light rail tracks, and north of 26th Street East.²⁰⁵ It is estimated that the G5 site is approximately two and a half acres.²⁰⁶ While this overall acreage is comparable to the Hiawatha West site, it is far less suitable for the substation because of its narrow rectangular shape.²⁰⁷ Given the shape of the Hiawatha G-5 site, there is inadequate space for all four of the required distribution

¹⁹⁷ Ex. 21 at 1-2 (McNelly Rebuttal).

¹⁹⁸ Ex. 20 at 5 (McNelly Direct).

¹⁹⁹ Ex. 20 at 5 (McNelly Direct).

²⁰⁰ Ex. 20 at 5 (McNelly Direct).

²⁰¹ Ex. 20 at 5 (McNelly Direct).

²⁰² Ex. 20 at 5 (McNelly Direct).

²⁰³ Asah 13 Vol. 98; Ex. 212A-212I.

²⁰⁴ Gallay 13 Vol. 20-21; Zima 12 Vol. 174-176.

²⁰⁵ Ex. 20 at 4 (McNelly Direct).

²⁰⁶ Ex. 21 at 1 (McNelly Rebuttal).

²⁰⁷ Ex. 21 at 1 (McNelly Rebuttal).

duct lines to exit the site and to reach the Project Area to the west.²⁰⁸ Additionally, this site would require modification to Xcel Energy's standard switchgear design and the use of a high-profile 115 kV design.²⁰⁹ As a result, special operations and maintenance procedures would have to be developed for this atypical design.²¹⁰ When a substation is so uniquely designed, the risks to utility crews increases.²¹¹ The site also presents access difficulties for repair and maintenance of the substation as it is landlocked on all sides by other properties or the light rail and Hiawatha Avenue.²¹²

126. In addition to the size and access constraints associated with this site, Hiawatha G-5 is currently being used by the Met Council to support light rail operations along Hiawatha Avenue. The Hiawatha G5 site was previously owned by Mn/DOT but was deeded to the Met Council for light rail use.²¹³ Met Council has stated that it plans to construct a building on the site.²¹⁴ To date, Met Council has spent 750,000 dollars to prepare the site for construction and intends to complete construction on this site within the next 12 months.²¹⁵

127. The Company also evaluated two additional sites for the Midtown Substation, Mt-28S and Mt-28N, proposed by the ATF.²¹⁶ The Mt-28N site is located on private green space owned by Wells Fargo.²¹⁷ Wells Fargo has stated that placement of a substation at Mt-28N could impact its ability to expand at its current location.²¹⁸ The Mt-28S site is paved lot owned by Wells Fargo and is currently used for employee parking.²¹⁹ Wells Fargo has plans to use this site for expansion of its existing south parking ramp.²²⁰ Xcel Energy evaluated the feasibility of these sites and

²⁰⁸ Ex. 24 at 4 (Zima Rebuttal).

²⁰⁹ Ex. 21 at 2 (McNelly Rebuttal).

²¹⁰ Ex. 24 at 4 (Zima Rebuttal).

²¹¹ Ex. 24 at 4-5 (Zima Rebuttal).

²¹² Ex. 21 at 2 (McNelly Rebuttal).

²¹³ Seykora Vol. 11 184-185.

²¹⁴ Public Exhibit 8 (Letter from Met Council).

²¹⁵ Public Exhibit 8 (Letter from Met Council).

²¹⁶ Ex. 20 at p. 7 (McNelly Direct).

²¹⁷ Ex. 127 at 7 (Olson Direct).

²¹⁸ Ex. 127 at 7 (Olson Direct).

²¹⁹ Ex. 127 at 6 (Olson Direct).

²²⁰ Ex. 127 at 6-7 (Olson Direct).

determined that the sites were not desirable due to the extra transmission line lengths and constraint for the installation of underground distribution facilities.

128. Xcel Energy's preferred site for the Hiawatha Substation is the Hiawatha West Site.²²¹ The Hiawatha East and Zimmer Davis sites are considered alternate substation sites by the Xcel Energy as these sites are also feasible.²²²

129. Xcel Energy's preferred location for the Midtown Substation is the Midtown North site.²²³ The Midtown South site is considered an alternate substation site by the Company as this site is also feasible.²²⁴ Mt-28N and Mt-28S are not reasonable or prudent alternatives to the Midtown North site.²²⁵

XII. PUBLIC AND LOCAL GOVERNMENT PARTICIPATION

A. Public Participation

130. Xcel Energy made significant efforts to reach out to the public prior to filing the Application.²²⁶

131. Mailings were set to more than 4,500 homeowners, customers, and other stakeholders in the Project Area to notify them about the open house public meetings.²²⁷ Xcel Energy also placed notices of these meetings in several local newspapers.²²⁸

132. Spanish interpreters were available at all meetings run by the Company held prior to submitting the Application and key handouts were translated into Spanish as a service to the residents and interested parties in the Project Area.²²⁹

133. Mailing lists were prepared by Natural Resource Group, LLC ("NRG"). The mailing lists included both landowners and renters.²³⁰ The mailing lists prepared

²²¹ Ex. 11 at 1-2 (Asah Rebuttal); Ex. 21 at 2 (McNelly Rebuttal).

²²² Ex. 11 at 1-2 (Asah Rebuttal); Ex. 21 at 2 (McNelly Rebuttal).

²²³ Ex. 10 at 6 (Asah Direct); Ex. 20 at 9 (McNelly Direct).

²²⁴ Ex. 10 at 6 (Asah Direct); Ex. 20 at 9 (McNelly Direct).

²²⁵ Ex. 11 at 6 (Asah Rebuttal).

²²⁶ Ex. 8 at 6 (Mirzayi Direct).

²²⁷ Ex. 1A at 112 (Application); Ex. 8 at 6 (Mirzayi Direct).

²²⁸ Ex. 1A at 112 (Application); Ex. 8 at 6 (Mirzayi Direct); Mirzayi 1 Vol. 118 (notice provided in Spanish).

²²⁹ Ex. 1A at 112 (Application); Ex. 8 at 6 (Mirzayi Direct).

for the Project used the Hennepin County tax records to obtain the landowner's name and address and used Xcel Energy customer lists to obtain the name and address of tenants within the Project Area.²³¹ This increased the likelihood that both the owner of a single- or multi-family dwelling, and the tenants living in that dwelling were included, for example.

B. Public Comments

134. Many members of the public spoke at the DEIS public meeting on February 10, 2010, and at the Public Hearings held on April 5 and 6, 2010, at Plaza Verde in Minneapolis, Minnesota.²³² Additionally, many members of the public submitted comments in writing, both on the DEIS and to ALJ Heydinger.

135. Representative Karen Clark spoke at the DEIS public meeting and commented that the neighborhood requires various state agencies to evaluate “potential cumulative health impact whenever a new source of pollution or contamination brought into this Phillips neighborhood.”²³³ Representative Clark also submitted written comments to the ALJ on May 10, 2010.²³⁴ In addition to the comments she provided at the DEIS public meeting, Rep. Clark stated that the “Hiawatha Project must be routed underground in order to avoid serious and cumulative environmental injustice to the residents of the Phillips Neighborhoods where the 115 kV power line is proposed to be located.”²³⁵ Additionally, Rep. Clark provided information that the population density of the Phillips Neighborhood is more than 8,900 people per square mile, with 40% of that population comprised of children.²³⁶ Rep. Clark also expressed concern that the fall zone of the transmission structures may inhibit or prevent Federal Housing Administration (“FHA”) mortgages.²³⁷ In addition to economic concerns, Rep. Clark stated a concern

²³⁰ Ex. 8 at 6-7 and Schedule 2 (Mirzayi Direct).

²³¹ Ex. 8 at 6-7 (Mirzayi Direct).

²³² Ex. 142 (Oral Comments Made on the DEIS at the Public Meeting); Public Hearing Transcript, April 5, 2010, 2:00 p.m., Plaza Verde; Public Hearing Transcript, April 5, 2010, 7:00 p.m., Plaza Verde; Public Hearing Transcript, April 6, 2010, 2:00 p.m., Plaza Verde; Public Hearing Transcript, April 6, 2010, 7:00 p.m.

²³³ Ex. 142 at 104 (Oral Comments Made on the DEIS at the Public Meeting).

²³⁴ Rep. Clark Letter, eDocket Document No. 20105-50442-01 (May 10, 2010).

²³⁵ Rep. Clark Letter at 2, eDocket Document No. 20105-50442-01 (May 10, 2010).

²³⁶ Rep. Clark Letter at 2, eDocket Document No. 20105-50442-01 (May 10, 2010).

²³⁷ Rep. Clark Letter at 2, eDocket Document No. 20105-50442-01 (May 10, 2010).

regarding health effects of exposure to electric and magnetic fields.²³⁸ Rep. Clark concluded her written comments by advocating that the transmission line for the Project be constructed under 28th Street.²³⁹

136. Several Minneapolis City Council Members spoke at the public hearings or submitted written comments. Council Member Gordon provided comments on the DEIS including questions about whether the Project is part of a phased action, whether a double circuit line is needed instead of a single circuit, the evaluation of EMF health effects, and whether fall zones have been evaluated.²⁴⁰ Council Member Gordon also spoke at the April 5, 2010 evening public hearing about the same issues.²⁴¹ Council Member Schiff spoke at the public hearing on April 6, 2010, about his concern that “high voltage power lines will scare away investment” and that he preferred Route D.²⁴² Council Vice President Lilligren also spoke at the same public hearing and commented that the need for the project should be studied, the substations should have a small footprint, and if constructed, the transmission line should be constructed along Route D, under 28th Street.²⁴³ Council Member Glidden spoke at the evening hearing on April 6, 2010, and was concerned that the Project would have “disproportionate impacts on communities of color and low-income famil[ies].”²⁴⁴

137. Angelina Matias-Vasquez of the Women’s Environmental Institute, the Midtown Greenway Coalition, and the Commission for Health for the Culture Women’s Center Backyard Initiative spoke at the DEIS public meeting.²⁴⁵ Ms. Matias-Vasquez requested that more renewable energy, distributed generation and energy efficiency be used in the Project Area.²⁴⁶ Ms. Matias-Vasquez also spoke at the Public Hearing.²⁴⁷ In addition to discussing the importance of renewable energy, Ms.

²³⁸ Rep. Clark Letter at 3, eDocket Document No. 20105-50442-01 (May 10, 2010).

²³⁹ Rep. Clark Letter at 4, eDocket Document No. 20105-50442-01 (May 10, 2010).

²⁴⁰ Ex. 143 at 29-32 (Public Comments (Written) Received During the DEIS Comment Period).

²⁴¹ Gordon, April 5, 2010, 7:00 p.m. at 40-45.

²⁴² Schiff, April 6, 2010, 7:00 p.m. at 41.

²⁴³ Lilligren, April 6, 2010, 7:00 p.m. at 48-53.

²⁴⁴ Glidden, April 6, 2010, 7:00 p.m. at 61.

²⁴⁵ Ex. 142 at 34 (Oral Comments Made on the DEIS at the Public Meeting).

²⁴⁶ Ex. 142 at 35 (Oral comments Made on the DEIS at the Public Meeting).

²⁴⁷ Matias-Vazquez, April 5, 2010, 2:00 p.m. at p. 70; Matias-Vazquez, April 5, 2010, 7:00 p.m. at 36; Matias-Vazquez, April 6, 2010, 2:00 p.m. at 30 and 99.

Matias-Vazquez discussed the high percentage of children living in the Project Area,²⁴⁸ asserted that she did not support above ground or below ground transmission lines,²⁴⁹ and questioned Mr. Zima on why the transmission line was not located in another area.²⁵⁰

138. Sarah Graham, a student at the University of Minnesota, speaking on behalf of Little Earth at the DEIS public meeting, requested that the EIS offer “concrete compensation to members of the community whose surroundings would be environmentally and aesthetically and economically impacted by the project.”²⁵¹ Additionally, Ms. Graham requested equipment upgrades to the distribution systems.²⁵² Finally, Ms. Graham expressed support for underground construction.²⁵³ At the Public Hearing, Ms. Graham presented a group of children from Little Earth of United Tribes to speak about why they preferred an underground transmission line over an above ground transmission line.²⁵⁴

139. At the DEIS meeting, Scott Cramer, a co-chair of the Longfellow Business Association and a member of the Longfellow Community Council expressed concern that the “brownouts and blackouts” experienced in the area cost area businesses “thousands of dollars.”²⁵⁵ Mr. Cramer also questioned why local renewable energy programs were not being developed for the Project Area.²⁵⁶

140. Testimony was presented by Aisha Gomez at the Public Hearing.²⁵⁷ Ms. Gomez does not own a car and uses the Midtown Greenway for commuting purposes.²⁵⁸ In addition to commenting on the importance (economically and aesthetically) of the Midtown Greenway, Ms. Gomez also voiced concern for the health and safety of neighborhood residents.²⁵⁹ She explained that many of the

²⁴⁸ Matias-Vazquez, April 5, 2010, 2:00 p.m. at 71.

²⁴⁹ Matias-Vazquez, April 5, 2010, 2:00 p.m. at 72.

²⁵⁰ Matias-Vazquez, April 6, 2010, 2:00 p.m. at 113-14

²⁵¹ Ex. 142 at 63 (Oral Comments Made on the DEIS at the Public Meeting).

²⁵² Ex. 142 at 64 (Oral Comments Made on the DEIS at the Public Meeting).

²⁵³ Ex. 142 at 64 (Oral Comments Made on the DEIS at the Public Meeting).

²⁵⁴ Graham, April 6, 2010, 7:00 p.m. at 68-70.

²⁵⁵ Ex. 142 at p. 37 (Oral Comments Made on the DEIS at the Public Meeting).

²⁵⁶ Ex. 142 at p. 39 (Oral Comments Made on the DEIS at the Public Meeting).

²⁵⁷ Gomez, April 6, 2010, 7:00 p.m. at 125.

²⁵⁸ Gomez, April 6, 2010, 7:00 p.m. at 125.

²⁵⁹ Gomez, April 6, 2010, 7:00 p.m. at 126.

children and residents in the neighborhood are already exposed to various indoor and outdoor pollutants and Ms. Gomez was concerned about additional exposures.²⁶⁰ She also voiced her support for renewable energy or energy efficiency programs.²⁶¹ Finally, Ms. Gomez testified that if the Project is constructed with an underground transmission line, the costs should be “distributed across the entire base of ratepayers.”²⁶²

C. Local Government and Community Organization Participation

141. Xcel Energy made significant efforts to reach out to interested public agencies and interested community organizations prior to filing the Application.²⁶³

142. Xcel Energy contacted or met with Hennepin County, Hennepin County Regional Railroad Authority (“HCRRA”), the City of Minneapolis, various community organizations, Minnesota State Historic Preservation Office (“SHPO”), Mn/DOT, Minnesota Department of Natural Resources (“MnDNR”), Met Council, and local State legislators.²⁶⁴

1. Hennepin County

143. The Company met on three separate occasions with Hennepin County staff, including the environmental coordinator, the HCRRA director, the Hiawatha Corridor coordinator, and offered to meet with other staff members during the route development process.²⁶⁵

144. As the Project Area was further defined, Xcel Energy provided several letters to Hennepin County commissioners and staff leadership.²⁶⁶

145. After the Company identified the routes eventually presented in the Application, Xcel Energy notified all Hennepin County commissioners and staff leadership.²⁶⁷

²⁶⁰ Gomez, April 6, 2010, 7:00 p.m. at 126-27.

²⁶¹ Gomez, April 6, 2010, 7:00 p.m. at 130.

²⁶² Gomez, April 6, 2010, 7:00 p.m. at 131.

²⁶³ Ex. 8 at 7 (Mirzayi Direct).

²⁶⁴ Ex. 8 at 7 (Mirzayi Direct).

²⁶⁵ Ex. 1A at 108 (Application).

²⁶⁶ Ex. 1A at 108 (Application).

²⁶⁷ Ex. 1A at 108 (Application).

146. The Company provided a briefing to the full Hennepin County Board of Commissioners on February 10, 2009.²⁶⁸

147. The Company offered to meet with commissioners following the February 10, 2009 board meeting, and met with three commissioners the week of March 2, 2009.²⁶⁹ At this meeting, the Company discussed general Project information and provided the commissioners with the background information on the Project that was provided to elected officials as part of the public outreach that began in September 2009.²⁷⁰

2. Hennepin County Regional Railroad Authority

148. Xcel Energy notified the HCRRA and the Hiawatha Coordinator about the Project in the fall of 2008 and sent an invitation to Xcel Energy's open house meetings.²⁷¹

149. HCRRA staff met with Xcel Energy to discuss the project for the first time on October 28, 2008.²⁷² HCRRA expressed a few concerns about the Project at this meeting.²⁷³ Xcel Energy had met with the HCRRA board chair, Commissioner Peter McLaughlin, prior to the October 28, 2008 meeting.²⁷⁴

150. Xcel Energy attended another meeting with an HCRRA commissioner on January 30, 2009. The commissioner expressed satisfaction with Xcel Energy's willingness to meet with community groups and the Xcel Energy's desire to find a solution workable for all interested parties during the meeting.²⁷⁵

151. On February 24, 2009, Xcel Energy attended a full HCRRA commissioner meeting.²⁷⁶ Commissioner McLaughlin introduced a resolution at that meeting opposing overhead transmission lines along the Midtown Greenway.²⁷⁷ The

²⁶⁸ Ex. 1A at 108 (Application).

²⁶⁹ Ex. 1A at 108 (Application).

²⁷⁰ Ex. 1A at 108 (Application).

²⁷¹ Ex. 1A at 108 (Application).

²⁷² Ex. 1A at 108 (Application).

²⁷³ Ex. 1A at 108 (Application).

²⁷⁴ Ex. 1A at 108 (Application).

²⁷⁵ Ex. 1A at 108-109 (Application).

²⁷⁶ Ex. 1A at 109 (Application).

²⁷⁷ Ex. 1A at 109 (Application); Ex. 8 at Schedule 3 at pp. 61-63 (Mirzayi Direct).

resolution expressed concern about overhead transmission structures along the Midtown Greenway but recognized the need for more reliable power in the area.²⁷⁸ At that time, the HCRRA Board of Commissioners did not take action on the resolution.²⁷⁹

152. On June 2, 2009, the HCRRA Board of Commissioners considered a new resolution, similar to the February 24, 2009 resolution, but the version considered on June 2, 2009 no longer stated a recognition that reliable power in the area was needed and additionally supported underground placement so long as the costs were spread among the customers within Xcel Energy's five-state service area, and authorized the HCRRA to take specific action.²⁸⁰

153. On March 10, 2010, the HCRRA submitted comments on the DEIS in conjunction with Hennepin County.²⁸¹ The HCRRA commented that the railroad corridor (also referred to as the Midtown Greenway) was acquired for future transit and transportation uses.²⁸²

3. City of Minneapolis

154. Xcel Energy providing briefings to the Minneapolis city staff and elected officials in 2007 and 2008 about the need for system improvements in the Lake Street and Hiawatha Avenue corridors.²⁸³

155. On September 16, 2008, Xcel Energy met with Mayor R.T. Rybak to discuss the Project and routes.²⁸⁴

156. Xcel Energy met with City Council members several times before and after the final route alternatives were chosen.²⁸⁵

157. Once the final routes for inclusion in the Application were selected by Xcel Energy, the City Council, the mayor, and City staff leaders were contacted by

²⁷⁸ Ex. 1A at 109 (Application); Ex. 8 at Schedule 3 at pp. 61-63 (Mirzayi Direct).

²⁷⁹ Ex. 1A at 109 (Application).

²⁸⁰ Ex. 8 at Schedule 3 at 64-72 (Mirzayi Direct).

²⁸¹ Ex. 143 at 67-70 (Public Comments (written) Received During the DEIS Comment Period).

²⁸² Ex. 143 at 70 (Public Comments (written) Received During the DEIS Comment Period).

²⁸³ Ex. 1A at 109 (Application).

²⁸⁴ Ex. 1A at 109 (Application).

²⁸⁵ Ex. 1A at 109 (Application).

email and meeting was held on December 9, 2008 with City staff where the Xcel Energy presented the routes to be included in the Application.²⁸⁶

158. On January 29, 2009, and February 6, 2009, Xcel Energy met with the City Council and subcommittees regarding the City's resolution that the transmission lines be constructed underground and to recover the cost from the largest customer base possible.²⁸⁷

159. On February 6, 2009, the City Council passed a resolution indicating the desire to construct the transmission lines underground, to recover the cost from the largest customer base possible, and asked Xcel Energy to delay filing the Application to complete additional studies.²⁸⁸

160. Xcel Energy delayed filing the Application from January 2009 to April 2009 in response to requests from stakeholders to summarize and compile the study analyses that support the need for the Project, and to further evaluate alternative power sources, analyze the effects of a combination of conservation and alternative power sources and to reassess the proposed routes.²⁸⁹

4. Minnesota State Historic Preservation Office

161. On December 30, 2009, the Company accessed the SHPO Archaeological and Architectural databases as a preliminary cultural resource assessment of the Project Area.²⁹⁰

162. The Company contacted the SHPO compliance office regarding the Project and the proposed use of the CM&St.P/HCRRA Corridor/Midtown Greenway for either overhead or underground construction.²⁹¹

5. Minnesota Department of Transportation

163. Xcel Energy provided a letter to Mn/DOT to inform it of the Project and provided an invitation to the open house meetings.²⁹²

²⁸⁶ Ex. 1A at 109 (Application).

²⁸⁷ Ex. 1A at 109 (Application);

²⁸⁸ Ex. 1A at 109 (Application); Ex. 1B at Appendix J (Application); Ex. 8 at Schedule 3 at 46 (Mirzayi Direct).

²⁸⁹ Ex. 1A at 109 (Application).

²⁹⁰ Ex. 1A at 111 (Application); Ex. 1B at Appendix E (Application).

²⁹¹ Ex. 1A at 111 (Application).

164. Mn/DOT further provided comments regarding the Hiawatha West and the G-5 sites for the Hiawatha Substation.²⁹³ The Hiawatha West site is owned and designated as surplus land by Mn/DOT.²⁹⁴ Mn/DOT further commented that a significant portion of the G-5 site was deeded to the Met Council for light rail use.²⁹⁵

165. In its March 10, 2010 letter commenting on the DEIS, Mn/DOT discussed Route E2.²⁹⁶ Mn/DOT stated that Route E2 would have significant impacts on future expansion and maintenance activities along the highways the route parallels and crosses.²⁹⁷

166. After the conclusion of hearings, Mn/DOT witness David Seykora informed the record that Mn/DOT had received new information from Met Council regarding its continued use of the railroad, which is used for light rail deliveries, located near the Hiawatha West Substation site.²⁹⁸ Xcel Energy proposes to relocate the line to accommodate the proposed substation.²⁹⁹

6. *Minnesota Department of Natural Resources*

167. On March 10, 2010, the Minnesota Department of Natural Resources (“MnDNR”) submitted a letter of comment on the DEIS.³⁰⁰

168. The MnDNR commented that the routing of the transmission lines and the substation siting should do so where impact to flora is the least.³⁰¹

169. On May 5, 2010, the MnDNR submitted a letter to ALJ Heydinger reiterating its previous comments submitted to OES on the DEIS.³⁰²

²⁹² Ex. 1A at 111 (Application).

²⁹³ Ex. 1A at 111 (Application); Ex 11 at 2 (Asah Rebuttal); Ex. 11 at Schedule 9 (Asah Rebuttal); Ex. 11 at Schedule 10(Asah Rebuttal).

²⁹⁴ Ex. 11 at 2 (Asah Rebuttal); Seykora 11 Vol. 169, 172.

²⁹⁵ Ex. 11 at 3 and Schedule 10 (Asah Rebuttal); Seykora 11 Vol. 172.

²⁹⁶ Ex. 228 (Mn/DOT DEIS Comment Letter-Revised).

²⁹⁷ Ex. 228 (Mn/DOT DEIS Comment Letter-Revised); Seykora 12 Vol. 18-19.

²⁹⁸ OES June 2, 2010 Letter, eDocket Document No. 20106-51177-01 (June 2, 2010).

²⁹⁹ Asah 13 Vol. 95-96.

³⁰⁰ Ex. 143 at 41 (Public Comments (written) Received During the DEIS Comment Period).

³⁰¹ Ex. 143 at 41 (Public Comments (written) Received During the DEIS Comment Period).

170. Additionally, the MnDNR stated that “urban green space may help foster an appreciation and awareness of natural resources through recreational use.”³⁰³

7. Metropolitan Council

171. The Company communicated with Met Council members and staff prior to submitting the Application.³⁰⁴

172. In additional communications, the Company discussed the Project with the Deputy Administrator of the Met Council.³⁰⁵

173. At the public hearing on April 5, 2010, the Met Council provided a letter stating its position regarding G-5.³⁰⁶ The Met Council stated it opposed the use of G-5 as a substation location.³⁰⁷ Mn/DOT transferred title of the G-5 site to the Met Council.³⁰⁸ Since the transfer, the Met Council “has expended considerable resources in preparing the site for the eventual construction of a [light rail transit] rail facility.”³⁰⁹ The Met Council provided in its comments to the ALJ that the G-5 site meets the needs for the rail facility and has plans for extensive use.³¹⁰

8. Minnesota State Legislators

174. The Company contacted, provided information to, and met with interested local State legislators. Local State legislators were also invited to all open houses and received the same notifications provided to the City of Minneapolis and Hennepin County regarding proposed and alternative routes and substation sites.³¹¹

³⁰² MnDNR Comment Letter to ALJ Heydinger at 6-7, eDocket Document No. 20105-50313-01 (May 5, 2010).

³⁰³ MnDNR Comment Letter to ALJ Heydinger at 6, eDocket Document No. 20105-50313-01 (May 5, 2010).

³⁰⁴ Ex. 1A at 112 (Application).

³⁰⁵ Ex. 1A at 112 (Application).

³⁰⁶ Public Ex. 8 (Met Council Letter).

³⁰⁷ Public Ex. 8 at 1 (Met Council Letter).

³⁰⁸ Public Ex. 8 at 2 (Met Council Letter).

³⁰⁹ Public Ex. 8 at 1 (Met Council Letter).

³¹⁰ Public Ex. 8 at 1 (Met Council Letter).

³¹¹ Ex. 1A at 112 (Application).

9. Community Organizations

175. There are several active community and neighborhood organizations within and nearby the Project Area.³¹²

176. The Seward neighborhood is bound by I-94 to the north, the Mississippi River to the east, 27th Street East on the south, and Hiawatha Avenue on the west.³¹³ The SNG is recognized by the City of Minneapolis as the official citizen participation organization for the Seward neighborhood.³¹⁴

177. The Phillips West neighborhood is bounded by Lake Street East on the south, I-35W on the west, 22nd Street East on the north, and Chicago Avenue on the east.³¹⁵ The Phillips West Neighborhood Organization is recognized by the City of Minneapolis as the official citizen participation organization for the Phillips West neighborhood.³¹⁶

178. Midtown Phillips is bounded by Lake Street East on the south, Chicago Avenue on the west, 24th Street East on the north, and Bloomington Avenue South on the east.³¹⁷ The MPNAI is recognized by the City of Minneapolis as the official citizen participation organization for the Midtown Phillips neighborhood.³¹⁸

179. East Phillips is bounded by Lake Street East on the south, Bloomington Avenue South on the west, 24th Street East on the north (with a portion between 17th Avenue South and Hiawatha Avenue extending north to 22nd Street East), and

³¹² Ex. 8 at 9-10 (Mirzayi Direct).

³¹³ Ex. 72 at 50 (Minneapolis Plan for Sustainable Growth—Comprehensive Plan).

³¹⁴ *In the Matter of the Route Permit Application for a High Voltage Transmission Line Route Permit for the Hiawatha Transmission Project*, Docket No.: ET2/TL-09-38, eDocket Document No. 200912-45032-01, Petition to Intervene Seward Neighborhood Group, Incorporated (December 14, 2009).

³¹⁵ Ex. 72 at 50 (Minneapolis Plan for Sustainable Growth—Comprehensive Plan).

³¹⁶ *In the Matter of the Route Permit Application for a High Voltage Transmission Line Route Permit for the Hiawatha Transmission Project*, Docket No.: ET2/TL-09-38, eDocket Document No. 20101-45717-02, Petition to Intervene Phillips West Neighborhood Organization (January 6, 2010).

³¹⁷ Ex. 72 at 50 (Minneapolis Plan for Sustainable Growth—Comprehensive Plan).

³¹⁸ *In the Matter of the Route Permit Application for a High Voltage Transmission Line Route Permit for the Hiawatha Transmission Project*, Docket No.: ET2/TL-09-38, eDocket Document No. 20101-46192-07, Petition to Intervene Midtown Phillips Neighborhood Association, Inc. (January 20, 2010).

Hiawatha Avenue on the east.³¹⁹ The EPIC is recognized by the City of Minneapolis as the official citizen participation organization for the East Phillips neighborhood.³²⁰

180. The Corcoran neighborhood is bound by 36th Street East on the south, Cedar Avenue South on the west, Lake Street East on the north, and Hiawatha Avenue on the east.³²¹ The CNO is recognized by the City of Minneapolis as the official citizen participation organization for the Corcoran neighborhood.³²²

181. The Longfellow Neighborhood is bound by 34th Street East on the south, Hiawatha Avenue on the west, 27th Street East on the north, and 38th Avenue South on the west.³²³ The LCC is recognized by the City of Minneapolis as the official citizen participation organization for the Longfellow neighborhood and three other south Minneapolis neighborhoods.³²⁴

182. Little Earth is located within the East Phillips neighborhood and is bound by E.M. Stately Street on the south, 18th Avenue South on the west, 24th Street East on the North, and Hiawatha Avenue on the east.³²⁵

183. The MGC represents the area encompassed by the Midtown Greenway and surrounding areas. The MGC's board of directors is comprised of one representative from each of the 17 neighborhoods along Lake Street/Midtown Greenway.³²⁶

³¹⁹ Ex. 72 at 50 (Minneapolis Plan for Sustainable Growth—Comprehensive Plan).

³²⁰ *In the Matter of the Route Permit Application for a High Voltage Transmission Line Route Permit for the Hiawatha Transmission Project*, Docket No.: ET2/TL-09-38, eDocket Document No. 20101-46215-03, Petition to Intervene East Phillips Improvement Coalition (January 21, 2010).

³²¹ Ex. 72 at 50 (Minneapolis Plan for Sustainable Growth—Comprehensive Plan).

³²² *In the Matter of the Route Permit Application for a High Voltage Transmission Line Route Permit for the Hiawatha Transmission Project*, Docket No.: ET2/TL-09-38, eDocket Document No. 200912-45340-02, Petition to Intervene Corcoran Neighborhood Organization (December 23, 2009).

³²³ Ex. 72 at 50 (Minneapolis Plan for Sustainable Growth—Comprehensive Plan).

³²⁴ *In the Matter of the Route Permit Application for a High Voltage Transmission Line Route Permit for the Hiawatha Transmission Project*, Docket No.: ET2/TL-09-38, eDocket Document No. 20099-42341-01, Petition to Intervene Longfellow Community Council (September 30, 2009).

³²⁵ Ellis 11 Vol. 44.

³²⁶ *In the Matter of the Route Permit Application for a High Voltage Transmission Line Route Permit for the Hiawatha Transmission Project*, Docket No.: ET2/TL-09-38, eDocket Document No. 20096-38733-01, Petition to Intervene Midtown Greenway Coalition (June 19, 2009).

184. The Company met with these area neighborhood organizations prior to the filing of the Application.³²⁷ The Company representatives were also available at more than a dozen evening and late afternoon meetings for presentations and question and answer sessions.

185. The Company also met with the board and other members of the MGC prior to the filing of the Application.³²⁸

CRITERIA FOR A ROUTE PERMIT

186. The Power Plant Siting Act (“PPSA”), Minnesota Statutes Chapter 216E, requires that route permit determinations “be guided by the state’s goals to conserve resources, minimize environmental impacts, minimize human settlement and other land use conflicts, and ensure the state’s electric energy security through efficient, cost-effective power supply and electric transmission infrastructure.”³²⁹

187. Under the PPSA,³³⁰ the Commission and ALJ must be guided by the following responsibilities, procedures and considerations:

- (1) evaluation of research and investigations relating to the effects on land, water and air resources of large electric power generating plants and high-voltage transmission lines and the effects of water and air discharges and electric and magnetic fields resulting from such facilities on public health and welfare, vegetation, animals, materials and aesthetic values, including baseline studies, predictive modeling, and evaluation of new or improved methods for minimizing adverse impacts of water and air discharges and other matters pertaining to the effects of power plants on the water and air environment;
- (2) environmental evaluation of sites and routes proposed for future development and expansion and their relationship to the land, water, air and human resources of the state;
- (3) evaluation of the effects of new electric power generation and transmission technologies and systems related to power plants designed to minimize adverse environmental effects;

³²⁷ Ex. 8 at 9-10 (Mirzayi Direct).

³²⁸ Ex. 8 at 9-10 (Mirzayi Direct).

³²⁹ Minn. Stat. § 216E.03, subd. 7.

³³⁰ Minn. Stat. § 216E.03, subd. 7.

- (4) evaluation of the potential for beneficial uses of waste energy from proposed large electric power generating plants;³³¹
- (5) analysis of the direct and indirect economic impact of proposed sites and routes including, but not limited to, productive agricultural land lost or impaired;
- (6) evaluation of adverse direct and indirect environmental effects that cannot be avoided should the proposed site and route be accepted;
- (7) evaluation of alternatives to the applicant's proposed site or route proposed pursuant to subdivision 1 and 2;
- (8) evaluation of potential routes that would use or parallel existing railroad and highway rights-of-way;
- (9) evaluation of governmental survey lines and other natural division lines of agricultural land so as to minimize interference with agricultural operations;
- (10) evaluation of future needs for additional high-voltage transmission lines in the same general area as any proposed route, and the advisability of ordering the construction of structures capable of expansion in transmission capacity through multiple circuiting or design modifications;
- (11) evaluation of irreversible and irretrievable commitments of resources should the proposed site or route be approved; and
- (12) when appropriate, consideration of problems raised by other state and federal agencies and local entities.³³²

188. In addition to the PPSA, the Commission and ALJ are governed by Minn. R. 7850.4100, which provides for the following factors to be considered when determining whether to issue a route permit for a high voltage transmission line:

- A. effects on human settlement, including, but not limited to, displacement, noise, aesthetics, cultural values, recreation, and public services;
- B. effects on public health and safety;

³³¹ Subfactor 4 is not applicable since Xcel Energy is not proposing to site a large electric generating plant.

³³² Minn. Stat. § 216E.03, subd. 7.

- C. effects on land-based economies, including, but not limited to, agriculture, forestry, tourism, and mining;
- D. effects on archaeological and historic resources;
- E. effects on the natural environment, including effects on air and water quality resources and flora and fauna;
- F. effects on rare and unique natural resources;
- G. application of design options that maximize energy efficiencies, mitigate adverse environmental effects, and could accommodate expansion of transmission or generating capacity;
- H. use or paralleling of existing rights-of-way, survey lines, natural division lines, and agricultural field boundaries;
- I. use of existing large electric power generating plant sites;³³³
- J. use of existing transportation, pipeline, and electrical transmission systems or rights-of-way;
- K. electrical system reliability;
- L. costs of constructing, operating, and maintaining the facility which are dependent on design and route;
- M. adverse human and natural environmental effects which cannot be avoided; and
- N. irreversible and irretrievable commitments of resources.³³⁴

189. There is sufficient evidence on the record for the ALJ to assess the proposed routes and alternatives using the criteria and factors set out above.

³³³ This criterion is not applicable here since it only applies to power plant siting.

³³⁴ Minn. R. 7850.4100.

APPLICATION OF STATUTORY AND RULE FACTORS

I. APPLICATION OF ROUTING FACTORS TO PROPOSED TRANSMISSION LINE ROUTES

A. Effects on Human Settlement

190. Minnesota statutory and rule high voltage transmission line routing criteria require consideration of the proposed transmission line routes effect on human settlement, including displacement of residences and business; noise created during construction and by operation of the Project; and impacts to aesthetics, cultural values, recreation and public services.³³⁵

1. Displacement

191. No displacement is anticipated if the Project is constructed along Route A—Alignments A1, A2, or A3, Route B, Route C, or Route D.

192. Route E2 is anticipated to cause the displacement of 63 structures (e.g., apartment buildings, houses, mixed use and garages).³³⁶

2. Noise

193. The Minnesota Pollution Control Agency (“MPCA”) has established standards for the regulation of noise levels.³³⁷

194. For residential, commercial and industrial land, the MPCA noise limits are 60-65 A-weighted decibel (“dBA”) during the daytime and 50-55 dBA during the nighttime.³³⁸

195. Transmission lines produce noise under certain conditions. The level of noise depends on conductor conditions, voltage level and weather conditions. Generally, activity related noise levels during the operation and maintenance of transmission lines are minimal and do not exceed the MPCA Noise Limits outside the right-of-way.³³⁹

³³⁵ Minn. Stat. § 216E.03, subd. 7(b); Minn. R. 7850.4100(A).

³³⁶ Ex. 1A at 76 (Application); Ex. 10 at Schedule 3 at 1 (Asah Direct).

³³⁷ Ex. 1A at 76-78 (Application).

³³⁸ Ex. 1A at 78 (Application).

³³⁹ Ex. 1A at 77-78 (Application).

196. The City of Minneapolis has established a noise ordinance which incorporates by reference the MPCA's noise standards and prohibits activities that generate sound, regardless of frequency, more than 10 dBA above the ambient noise level when measured within any dwelling unit.³⁴⁰

197. Transmission lines produce noise under certain conditions. The level of noise depends on conductor conditions, voltage level and weather conditions. Generally, activity related noise levels during the operation and maintenance of transmission lines are minimal and do not exceed the MPCA Noise Limits outside the right-of-way.³⁴¹

198. The audible noise levels for Route A, overhead or underground design, Route B, Route C, Route D and Route E2 are not predicted to exceed the MPCA or the City of Minneapolis noise limits.³⁴²

3. Aesthetics

199. The aesthetic impact of the Project will differ depending on the construction method used, i.e., overhead versus underground.³⁴³

200. For the proposed overhead transmission route alternatives, the double circuit and single circuit structures will be between 75 and 80 feet in height, and at times reaching 100 to 115 feet in height.³⁴⁴

201. The majority of structures in the Project Area range in height from one to three stories. However, taller commercial, industrial and residential buildings are present.³⁴⁵ The tallest building in the Project Area is the central tower of the Midtown Exchange building, which is 16 stories (approximately 210 feet) in height.³⁴⁶ As a result, the proposed overhead designs will contain structures taller than many structures in the Project Area.³⁴⁷

³⁴⁰ Ex. 1A at 78 (Application).

³⁴¹ Ex. 1A at 77-78 (Application).

³⁴² Ex. 1A at 78 (Application); Ex. 10 at Schedule 3 (Asah Direct); FEIS at 387, eDocket Document No. 20106-51326-01 (June 7, 2010).

³⁴³ Ex. 10 at 12 (Asah Direct).

³⁴⁴ Ex. 1A at 80 (Application).

³⁴⁵ Ex. 1A at 80 (Application).

³⁴⁶ Ex. 1A at 80 (Application).

³⁴⁷ Ex. 1A at 80 (Application).

202. The majority of the Project Area contains existing overhead electrical distribution line.³⁴⁸ The proposed overhead designs will contain structures taller than the existing distribution lines.³⁴⁹

203. Intervenors City of Minneapolis, Hennepin County, and MGC argued that the proposed overhead designs would be a large visual addition that would not be consistent with CM&St.P, the Midtown Greenway historic district.³⁵⁰

204. Xcel Energy recognizes the overhead design will be an aesthetic contrast to some surrounding land use and has identified mitigative measures and developed route alternatives that utilize existing corridors and avoid sensitive cultural and institutional resources.³⁵¹

205. Construction of the proposed underground transmission line designs will cause temporary ground disturbances. As a result, the aesthetic impact of the proposed underground transmission are primarily short-term in nature during the construction period.³⁵²

206. Several intervenors including City of Minneapolis, Hennepin County, and MGC support the underground transmission line designs because the lines will be out-of-sight.³⁵³

207. Route A—Alignment A1 will affect aesthetics within close proximity of the transmission lines and substations.

208. Route A—Alignment A1 would parallel and cross the Midtown Greenway.³⁵⁴

209. Route A—Alignment A1 may be visible from the northern portion of the Pioneers and Soldiers Cemetery.³⁵⁵

³⁴⁸ Ex. 1A at 80 (Application).

³⁴⁹ Ex. 1A at 80 (Application).

³⁵⁰ Ex. 96 at 14 (Byers Direct).

³⁵¹ Ex. 1A at 81 (Application).

³⁵² Ex. 1A at 81 (Application).

³⁵³ Ex. 96 at 25(Byers Direct); Ex. 102 at 8 (McLaughlin Direct); Ex. 36 at 24 (Springer Direct).

³⁵⁴ Ex. 10 at Schedule 3 (Asah Direct); Ex. 96 at 16 (Byers Direct);

³⁵⁵ Ex. 96 at 16 (Byers Direct).

210. There are approximately 54 landowners located on or adjacent to the proposed right-of-way for Route A—Alignment A1.³⁵⁶

211. To mitigate visual impacts of Route A—Alignment A1, Xcel Energy would re-locate the existing distribution line along the 29th Street/HCRRA corridor and place them underground.³⁵⁷ In addition, Xcel Energy could construct the proposed transmission lines on weathering steel structures as opposed to galvanized steel pole structures.³⁵⁸

212. Route A—Alignment A2 would have post-construction aesthetic impacts at the substation areas and the 30-foot right-of-way area.³⁵⁹

213. There are approximately 52 landowners located on or adjacent to the proposed right-of-way for Route A—Alignment A2.³⁶⁰

214. Route A—Alignment A3 would have post-construction aesthetic impacts include nine vault locations, access points in or immediately adjacent to the Midtown Greenway, substation areas, and a 30-foot right-of-way area for transmission lines.³⁶¹

215. There are three landowners (Hennepin County, the Company and the State of Minnesota) located on the proposed right-of-way for Route A—Alignment A3.³⁶²

216. Route B will affect aesthetics within close proximity of the transmission lines and substations.³⁶³

217. Portions of Route B will cross or be located near the American Swedish Institute and Midtown Greenway.³⁶⁴

³⁵⁶ Ex. 10 at Schedule 3 (Asah Direct).

³⁵⁷ Ex. 1A at 81 (Application).

³⁵⁸ Ex. 12 at 2 (Asah Surrebuttal); Gallay 4 Vol. 117-18.

³⁵⁹ Ex. 10 at Schedule 3 (Asah Direct).

³⁶⁰ Ex. 10 at Schedule 3 (Asah Direct).

³⁶¹ Ex. 10 at Schedule 3 (Asah Direct).

³⁶² Ex. 10 at Schedule 3 (Asah Direct).

³⁶³ Ex. 1A at 80 (Application); Ex. 10 at Schedule 3 (Asah Direct).

³⁶⁴ Ex 10 at Schedule 3 (Asah Direct).

218. There are approximately 483 landowners located on or adjacent to the proposed right-of-way for Route B.³⁶⁵

219. To mitigate visual impacts of Route B, Xcel Energy would remove certain distribution structures along the route and support the distribution lines on the new structures.³⁶⁶

220. Route C will affect area aesthetics within close proximity of the transmission lines and substations.³⁶⁷

221. Portions of Route C will cross or be sited near the Midtown Greenway.³⁶⁸

222. There are approximately 312 landowners located on or adjacent to the proposed right-of-way for Route C.³⁶⁹

223. To mitigate visual impacts of Route C, Xcel Energy would remove certain distribution structures along the route and support the distribution lines on the new structures.³⁷⁰

224. Route D, center of street or north sidewalk, would have post-construction aesthetic impacts limited to substation areas and 30-foot right-of-way area for the transmission line.³⁷¹

225. There are approximately 180 landowners located on or adjacent to the proposed right-of-way for Route D, center of street or north sidewalk.³⁷²

226. Route E2 will affect area aesthetics within close proximity of the transmission lines and substations.³⁷³

³⁶⁵ Ex. 10 at Schedule 3 (Asah Direct).

³⁶⁶ Ex. 1A at 81 (Application).

³⁶⁷ Ex. 1A at 80 (Application); Ex. 10 at Schedule 3 (Asah Direct).

³⁶⁸ Ex. 10 at Schedule 3 (Asah Direct).

³⁶⁹ Ex. 10 at Schedule 3 (Asah Direct).

³⁷⁰ Ex. 1A at 81 (Application).

³⁷¹ Ex. 10 at Schedule 3 (Asah Direct).

³⁷² Ex. 10 at Schedule 3 (Asah Direct).

³⁷³ Ex. 1A at 80 (Application); Ex. 10 at Schedule 3 (Asah Direct).

227. Portions of Route E2 will cross or be located near the Hennepin County Corridor, I-35W, I-94/35W Commons area, and Hiawatha light-rail.³⁷⁴

228. There are approximately 140 landowners³⁷⁵ located on or adjacent to the proposed right-of-way for Route E2.³⁷⁶

4. Cultural Values

229. The Midtown area in South Minneapolis is an area rich in cultural diversity.³⁷⁷ It is an ethnically and racially diverse neighborhood with many types of business, schools and religious institutions.³⁷⁸

230. No impacts are anticipated to cultural values by constructing the Project along Route A, Route B, Route C, Route D or Route E2.³⁷⁹

5. Recreation

231. Recreational opportunities within the Project Area include Stewart Park, the 2529 13th Avenue South Property, Cedar Avenue Field, Powderhorn Park and the Midtown Greenway.³⁸⁰

232. Stewart Park provides a playground, baseball and softball fields, a wading pool and recreation center.³⁸¹

233. The 2529 13th Avenue South Property includes the White Neighborhood House, a playground and gardens.³⁸²

234. Cedar Avenue Field provides picnic and playground activities.³⁸³

³⁷⁴ Ex. 10 at Schedule 3 (Asah Direct).

³⁷⁵ This number does not include tenants of multi-family dwellings and only includes the number of landowners with property located on or adjacent to the proposed Route E2 right-of-way. FEIS at 96, eDocket Document No. 20106-51326-01 (June 7, 2010).

³⁷⁶ Ex. 10 at Schedule 3 at 2 (Asah Direct).

³⁷⁷ Ex. 1A at 83 (Application).

³⁷⁸ Ex. 1A at 83 (Application).

³⁷⁹ Ex. 1A at 83 (Application).

³⁸⁰ Ex. 1A at 84 (Application).

³⁸¹ Ex. 1A at 84 (Application).

³⁸² Ex. 1A at 84 (Application).

235. Powderhorn Park covers 65 acres and hosts several events each year including the annual 4th of July Celebration, May Day Festival and the Powderhorn Arts Festival.³⁸⁴

236. The Midtown Greenway is currently used as a 5.7 mile shared bicycle and pedestrian corridor that travels through the City of Minneapolis from the St. Louis Park city limits in the west to West River Parkway in the east.³⁸⁵ The Midtown Greenway connects with other trails around the Minneapolis Chain of Lakes.³⁸⁶

237. Facilities constructed along Route A, whether overhead or underground, would not be visible from or located adjacent to any parks. However the majority of transmission lines would be located on or adjacent to Hennepin County property including the Midtown Greenway.³⁸⁷

238. Route A—Alignment A1 could potentially affect use of the Midtown Greenway during construction activities depending on final alignment. All construction closures would be temporary in nature. Xcel Energy will work with stakeholders to minimize impacts where feasible. No permanent impacts to recreation are anticipated.³⁸⁸

239. If the overhead design is selected for Route A, Route A—Alignment A1, parties have expressed concern that the facilities will decrease the popularity of the Midtown Greenway trail.³⁸⁹ This concern is not supported by the record evidence. Bicycle paths adjacent to transmission facilities are not uncommon and there is no study or expert opinion to support the claim that bike path use will be reduced if overhead lines are installed.³⁹⁰

240. Route A—Alignment A2 would potentially affect use of the Midtown Greenway during construction activities. All construction relocations would be temporary in nature and the Company will work with stakeholders to minimize

³⁸³ Ex. 1A at 84 (Application).

³⁸⁴ Ex. 1A at 84 (Application).

³⁸⁵ Ex. 1A at 84 (Application).

³⁸⁶ Ex. 36 at 6 (Springer Direct).

³⁸⁷ Ex. 1A at 84 (Application).

³⁸⁸ Ex. 10 at Schedule 3 at 3 (Asah Direct).

³⁸⁹ Ex. 36 at 16 (Springer Direct).

³⁹⁰ Ex. 1A at 85 (Application); Ex. 1B at Appendix B.15 (Application Appendices).

impacts through trail relocations or other measures when feasible. No permanent impacts are anticipated.³⁹¹

241. Route A—Alignment A3 would affect use of the Midtown Greenway during construction activities. All construction closures would be temporary in nature and the Company will work with stakeholders to minimize impacts when feasible. Such disruptions or closures will be minimized by creating an alternate path for bicyclists or pedestrians during these times.³⁹² This alternate path would most likely be on the southern portion of the Greenway.³⁹³ Post-construction, periodic closures or reroutes of pedestrian or bicycle traffic along the Midtown Greenway will be necessary for required maintenance and repairs.³⁹⁴

242. Portions of Route B are adjacent to Stewart Park and 2529 13th Avenue Property. The facilities also would likely be visible from Cedar Avenue Field.³⁹⁵

243. Route B would affect use of the Midtown Greenway during construction of a short segment of the line. All construction closures would be temporary in nature and Xcel Energy will work with stakeholders to minimize impacts when feasible. Post-construction, periodic closures or reroutes of pedestrian or bicycle traffic along the Midtown Greenway will be necessary for required maintenance and repairs.³⁹⁶

244. Route C would likely be visible from Powderhorn Park.³⁹⁷

245. Route C may temporarily impact use of the Midtown Greenway during construction of a short segment of transmission line near the Midtown Greenway. All construction closures would be temporary in nature and Xcel Energy will work with stakeholders to minimize impacts through trail relocations or other measures when feasible. No permanent impacts of the Midtown Greenway or other recreational activities are anticipated.³⁹⁸

³⁹¹ Ex. 10 at Schedule 3 at 3 (Asah Direct).

³⁹² Ex. 19 at 6 (Gallay Rebuttal).

³⁹³ Gallay 4 Vol. 127.

³⁹⁴ Ex. 10 at Schedule 3 at 3 (Asah Direct).

³⁹⁵ Ex. 1A at 85 (Application).

³⁹⁶ Ex. 10 at Schedule 3 at 3 (Asah Direct).

³⁹⁷ Ex. 1A at 85 (Application).

³⁹⁸ Ex. 10 at Schedule 3 at 3 (Asah Direct).

246. Route D would affect use of the Midtown Greenway during construction of a short segment of the line. All construction closures would be temporary in nature and the Company will work with stakeholders to minimize impacts when feasible. Post-construction, periodic closures or reroutes of pedestrian or bicycle traffic along the Midtown Greenway will be necessary for required maintenance and repairs.³⁹⁹

247. Portions of Route E2 would likely be visible from East Phillips Park, Franklin Steele Park, Clinton Field, Little Earth Village and green space adjacent to Minneapolis American Indian Center.⁴⁰⁰

248. Route E2 may temporarily impact use of the Midtown Greenway during construction of a short segment of transmission line near the Midtown Greenway. All construction closures would be temporary in nature and the Company will work with stakeholders to minimize impacts when feasible.⁴⁰¹

249. Route E2 would require transmission poles within East Phillips Park.⁴⁰²

250. The record demonstrates that Route A, overhead or underground, Route B, Route C and Route D would not permanently impact recreation activities.

251. The record demonstrates that Route E2 would permanently impact recreation activities.

6. Public Services

252. The City of Minneapolis provides typical public infrastructure to the community. It is not expected that the Project will adversely affect these services.⁴⁰³

(a) **Compatibility with Future Transit**

253. A distinct aspect of Route A is that it is located adjacent to or within a historic transportation corridor. The CM&St.P Historic District was constructed as a depressed railroad corridor between 1912 and 1916.⁴⁰⁴ In 1993, HCRRA acquired this

³⁹⁹ Ex. 10 at Schedule 3 at 3 (Asah Direct).

⁴⁰⁰ Ex. 10 at Schedule 3 at 3 (Asah Direct).

⁴⁰¹ Ex. 10 at Schedule 3 at 3 (Asah Direct).

⁴⁰² Ex. 10 at Schedule 3 at 3 (Asah Direct).

⁴⁰³ Ex. 1A at 85 (Application).

⁴⁰⁴ Ex. 15 at Schedule 10 at 57 (Stark Surrebuttal).

railroad corridor for future transit use.⁴⁰⁵ Currently, this corridor is being used by the City of Minneapolis for a commuter bicycle and pedestrian trail.⁴⁰⁶

254. Hennepin County has indicated that its near term plan (0-5 years) for the Midtown Greenway is to continue to allow the City of Minneapolis to operate a commuter bicycle and pedestrian trail and to preserve this area for future transit use (more than 5 years).⁴⁰⁷ At this time, Hennepin County has not determined whether the form of future transit will be rapid bus, light rail, or street car transit or the specific time frame for transit implementation.⁴⁰⁸ However, the evidence on the record demonstrates that light rail is very unlikely but that streetcar transit in the Midtown Greenway is being considered.⁴⁰⁹

255. Several studies have been conducted regarding the feasibility of installing different forms of transit in the Midtown Greenway. These studies include: (1) the 29th Street and Southwest Corridors Bus Feasibility Study-February 2000;⁴¹⁰ (2) the Minneapolis Streetcar Feasibility Study, Final Report-2007; and (3) the 29th Street Vintage Rail Trolley Study.⁴¹¹ All of these studies propose transit facilities within the south side of the Greenway trench and several transit stations along the Midtown Greenway to provide access to the street level.⁴¹²

256. Xcel Energy's transmission engineer, Benjamin Gallay, reviewed each of these studies and stated that Xcel Energy would be able to construct the proposed transmission lines, overhead or underground, in such a manner that they do not interfere with future transit use within the Greenway.⁴¹³ Route A—Alignment A1 and

⁴⁰⁵ Ex. 102 at 3 (McLaughlin Direct); Ex. 105 at 6 (Michalko Direct); Michalko 9 Vol. 104.

⁴⁰⁶ Michalko 9 Vol. 103.

⁴⁰⁷ Ex. 10 at 13 (Asah Direct); Ex. 18 at Schedule 9 (Gallay Direct).

⁴⁰⁸ Ex. 102 at 7 (McLaughlin Direct) (stating that HCCRA's plans for Greenway are "to use the right-of-way for light rail or other rail transit such as a street car line."); Ex. 105 at 12 (Michalko Direct) ("[I]t is unclear at this time how and what will be constructed for the transit project . . ."); Michalko 9 Vol. 78 ("I do not believe that we [Hennepin County] have a specific timeline [regarding future transit].")

⁴⁰⁹ Ex. 102 at 10 (McLaughlin Direct) ("The possibility of light rail is remote. The idea, however, of street car use is being actively considered.").

⁴¹⁰ While the title of this study relates only to bus transit, the actual study also examines the feasibility of light rail transit within the Greenway. See Ex. 18 at Schedule 10.

⁴¹¹ Ex. 18 at Schedules 10-12 (Gallay Direct).

⁴¹² Ex. 18 at Schedules 10-12 (Gallay Direct).

⁴¹³ Ex. 18 at 14 (Gallay Direct); Gallay 4 Vol. 65-67.

Route A—Alignment A2 are primarily located outside of the trench area, where Hennepin County is expected to construct any transit facilities.⁴¹⁴ Route A—Alignment A3 is located along the bottom of the Greenway, generally north of the paved bike/pedestrian path. Given that all of the studies to date place future transit to the south of and to maintain the usability of the bike/pedestrian path, it is highly unlikely that the underground proposed lines would interfere with future transit.⁴¹⁵

257. All of the conceptual transit studies also call for construction of transit stations along the Greenway, one at Cedar Avenue and another at Chicago Avenue.⁴¹⁶ While no construction details are given in the studies as to the exact location and design of these stations, it can be reasonably assumed the station will be at the bottom of the trench, be similar in design to the existing downtown stations on the Hiawatha light rail line, and include some type of pedestrian access at the street level.⁴¹⁷ For the overhead design option, pole locations and span lengths can be adjusted to accommodate these transit stations locations.⁴¹⁸ For either underground options, Route A—Alignment A2 and Route A—Alignment A3, the lines could be constructed under the stations provided sufficient details of the station designs are available.⁴¹⁹

258. The Company will work with Hennepin County to reduce the risk that overhead or underground transmission facilities will need to be relocated to accommodate new transit facilities. The more detailed information that can be provided by the County during the design phase of this Project about the expected method and location of future transit, the less likelihood there is for future conflict.⁴²⁰

⁴¹⁴ Ex. 18 at 14 (Gallay Direct).

⁴¹⁵ Ex. 105 at 7 (Michalko Direct); Ex. 18 at 15 (Gallay Direct); Michalko 9 Vol. 96 (stating that one of Hennepin County's objectives in developing future transit is to avoid moving the bike/pedestrian path).

⁴¹⁶ Ex. 18 at Schedule 10 at Figure 12 (Gallay Direct); It should be noted that the Midtown Greenway Land Use & Development Plan calls for transit stations located at Bloomington Avenue and Chicago Avenue. (Ex. 40 at 48 (Springer Direct Schedule 4)).

⁴¹⁷ Ex. 18 at 15 (Gallay Direct).

⁴¹⁸ Ex. 18 at 15 (Gallay Direct).

⁴¹⁹ Ex. 18 at 16 (Gallay Direct).

⁴²⁰ Ex. 19 at 4 (Gallay Rebuttal); Michalko 9 Vol. 98.

259. Even if transit plans change in the future after the transmission facilities are constructed, the new transit facilities could be constructed around the existing transmission facilities or relocation of the transmission facilities is also an option.⁴²¹

(b) **Compatibility with future bridge repair or replacement**

260. Much of the infrastructure, such as bridges and retaining walls, along the Greenway was built during construction of the grade separation and are in need of significant repair or replacement.⁴²²

261. Hennepin County stated concern that its ability to use overhead cranes for the repair or replacement of these bridges and retaining walls will be compromised if overhead transmission structures are placed along Route A—Alignment A1.⁴²³

262. While safe working clearances between the overhead cranes and the lines would need to be maintained during construction, overhead cranes could still be used along the Greenway even if Route A—Alignment A1 was selected.⁴²⁴ In addition, if there is a concern that safe clearances may not be maintained during construction, Xcel Energy could de-energize segments of the transmission line for the short duration when the crane is needed.⁴²⁵

B. Effects on Public Health and Safety

263. Minnesota high voltage transmission line routing criteria require consideration of the Project's effect on health and safety.⁴²⁶

1. *Construction and Operation of Facilities*

264. The evidence on the record demonstrates that the Company has identified and will implement the appropriate safeguards during construction and operation to avoid any impacts to human health.

⁴²¹ Ex. 19 at 4 (Gallay Rebuttal); Michalko 9 Vol. 97-98.

⁴²² Ex. 105 at 9 (Michalko Direct).

⁴²³ Ex. 105 at 9 (Michalko Direct).

⁴²⁴ Ex. 19 at 5 (Gallay Rebuttal).

⁴²⁵ Ex. 19 at 5 (Gallay Rebuttal).

⁴²⁶ Minn. Stat. § 216E.03, subd. 7(b)(1); Minn. R. 7850.4100(B).

265. The Project will be designed in compliance with local, state, NESC and the Company standards regarding clearance to ground, clearance to crossing utilities, clearance to buildings, strength of materials, and right-of-way widths.⁴²⁷

266. The Company construction crews and/or contract crews will comply with local, state, NESC, and the Company standards regarding installation of facilities and standard construction practices. The Company-established and industry safety procedures will be followed during and after installation of the transmission lines.⁴²⁸ This will include clear signage during all construction activities.⁴²⁹

267. Several parties have raised concerns about the ability of the proposed transmission structures to withstand extreme weather conditions such as the tornado that struck south Minneapolis in August 2009.⁴³⁰

268. Xcel Energy's transmission structures are designed to meet or exceed the requirements of the NESC and to withstand extreme wind and weather conditions normally experienced in their areas of installation.⁴³¹ In the past five years, there have been no steel pole failures on the Xcel Energy system in Minnesota due to tornadoes or other storm conditions.⁴³²

269. In the unlikely event that structure or conductor does fall to the ground, the proposed transmission lines will be equipped with protective devices that will de-energize the line.⁴³³

2. EMF

270. An issue that received several comments throughout the proceeding was the potential impacts of electric and magnetic fields ("EMF") on public health.⁴³⁴

271. The possible impact of EMF exposure on human health has been investigated by public health professionals for the past several decades.⁴³⁵

⁴²⁷ Ex. 1A at 71 (Application).

⁴²⁸ Ex. 1A at 71 (Application).

⁴²⁹ Ex. 1A at 71 (Application).

⁴³⁰ Ex. 109 at 8 (Schedin Direct).

⁴³¹ Ex. 18 at 5 (Gallay Direct).

⁴³² Ex. 18 at Schedule 2 (Gallay Direct).

⁴³³ Ex. 1A at 71 (Application).

⁴³⁴ Ex. 143 at 90 (Public Comment from Kevin Loeke).

272. The general consensus is that electric fields pose no human risk.⁴³⁶

273. The main research on magnetic fields began in 1979.⁴³⁷ Since that time, epidemiological and toxicological studies have shown only weak associations between magnetic field exposure and health risks and none has established a causal relationship.⁴³⁸

274. The potential impacts of EMF on human health was also recently at issue in the route permit proceeding for the Brookings–Hampton 345 kV transmission line. In that proceeding, Administrative Law Judge Richard Luis found that: “The absence of any demonstrated impact by EMF-ELF exposure supports the conclusion that there is no demonstrated impact on human health and safety that is not adequately addressed by the existing State standards for such exposure. The record shows that the current exposure standard for EMF-ELF is adequately protective of human health and safety.”⁴³⁹

275. There is no federal standard for transmission line electric or magnetic fields.⁴⁴⁰ However, the Commission has imposed a maximum electric field limit of 8 kV/m measured at one meter above the ground at the edge of the right-of-way.⁴⁴¹

276. The calculated electric fields for both the overhead and underground design for Route A are significantly less than the maximum limit of 8 kV/m that has been imposed by the Commission.⁴⁴²

277. There is no indication that any significant impact on human health and safety from EMF will arise from the Project, regardless of which route is chosen.

⁴³⁵ Ex. 18 at 17 (Gallay Direct); Ex. 1A at 63 (Application).

⁴³⁶ Ex. 1A at 63 (Application).

⁴³⁷ Ex. 18 at 17 (Gallay Direct).

⁴³⁸ Ex. 18 at 17 (Gallay Direct).

⁴³⁹ ALJ Findings of Fact, Conclusions and Recommendation, *In the Matter of the Route Permit Application by Great River Energy and Xcel Energy for a 345 kV Transmission Line from Brookings County, South Dakota to Hampton, Minnesota*, Docket No. ET-2/TL-08-1474 (April 22, 2010).

⁴⁴⁰ Ex. 1A at 63 (Application).

⁴⁴¹ Ex. 1A at 63 (Application).

⁴⁴² Ex. 1A at 67 (Application).

C. Effects on Land Based Economies and Direct and Indirect Economic Impacts

1. *Effect on Land Based Economies*

278. Minnesota's high voltage transmission line routing criteria require consideration of the Project's impacts to land based economies, specifically agriculture, forestry, tourism, and mining.⁴⁴³

279. As the Project is located in a highly developed urban area, there are no existing commercial agriculture, forestry, or mining activities that occur within the Project Area.⁴⁴⁴ There are several tourist attractions located in the Project Area.

280. Route A—Alignment A1 would be located adjacent to the Midtown Global Market and the Sheraton Minneapolis Midtown Hotel. The transmission lines would likely be visible from these resources but would not directly affect their use.⁴⁴⁵

281. No impacts to tourism are anticipated as a result of Route A—Alignment A2, Route A—Alignment A3; or Route D. Temporary impacts to local businesses may occur during construction due to temporary road or Midtown Greenway closures.⁴⁴⁶

282. One transmission line for Route B would be located adjacent to the American Swedish Institute. The transmission line would likely be visible from this resource but would not directly affect its use.⁴⁴⁷

283. One transmission line for Route C would cross near the intersection of East Lake Street and Portland Avenue South. The transmission line would likely be visible from Lake Street shops in the vicinity of the transmission line but not directly affect their use.⁴⁴⁸

⁴⁴³ Minn. Stat. § 216E.03, subd. 7(b)(5); Minn. R. 7850.4100(C).

⁴⁴⁴ Ex. 1A at 87 (Application).

⁴⁴⁵ Ex. 1A at 103 (Application); Ex. 10 at Schedule 3 at 4 (Asah Direct).

⁴⁴⁶ Ex. 1A at 103 (Application); Ex. 10 at Schedule 3 at 4 (Asah Direct).

⁴⁴⁷ Ex. 1A at 103 (Application); Ex. 10 at Schedule 3 at 4 (Asah Direct).

⁴⁴⁸ Ex. 1A at 103 (Application); Ex. 10 at Schedule 3 at 4 (Asah Direct).

284. While the transmission line along Route E2 would likely be visible from the Minneapolis Convention Center, I-94/I-35W Commons area and the Hiawatha light rail line, no impacts to tourism are anticipated.⁴⁴⁹

2. Direct and Indirect Economic Impacts

285. A related statutory routing factor, Minn. Stat. 216E.03, subd. 7(b)(5), requires an analysis of direct and indirect economic impacts of the proposed routes. The record demonstrates that the proposed Project will provide positive economic benefits to the Project Area as it will provide the necessary electrical support for future development. In addition, there are no studies or other direct evidence to support claims that overhead lines will hamper future development.

(a) **Impact on future development**

286. There are several small area plans, which are subsets of the City of Minneapolis's comprehensive plan, that articulate the future land use plans for the Project Area.⁴⁵⁰ These plans include (1) the Midtown Greenway Land Use and Development Plan; (2) the Midtown Minneapolis Land Use and Development Plan; (3) the Phillips West Master Land Use Plan; (4) the Seward Longfellow Greenway Area Land Use and Predevelopment Study; and (5) the Hiawatha/Lake Station Area Master Plan.⁴⁵¹ Minneapolis's Principal City Planner, Paul Mogush, testified that each of these five land plans calls for increased development along the Midtown Greenway.⁴⁵²

287. Given the plans for increased commercial, industrial, and residential development in this area, additional electrical capacity will be needed to serve this development.⁴⁵³ Once in operation, the proposed Project will provide this additional electrical capacity in the Midtown area.⁴⁵⁴ This additional capacity will provide electricity to serve new residential developments as well as new and expanded commercial businesses and industry within the area and will provide a more robust

⁴⁴⁹ Ex. 10 at Schedule 3 at 4 (Asah Direct).

⁴⁵⁰ Ex. 97 at 3-4 (Mogush Direct).

⁴⁵¹ Ex. 40 (Midtown Greenway Land Use and Development Plan); Ex. 85 (Midtown Minneapolis Land Use and Development Plan); Ex. 86 (Phillips West Master Land Use Plan); Ex. 87 (Seward Longfellow Greenway Area Land Use and Predevelopment Study); Ex. 88 (Hiawatha/Lake Station Area Master Plan).

⁴⁵² Mogush 8 Vol. 108-16.

⁴⁵³ Ex. 40 (Midtown Greenway Land Use Plan).

⁴⁵⁴ Ex. 23 at 8 (Zima Direct).

electric distribution system that will minimize the risk of brownouts and temporary losses of power.⁴⁵⁵

288. While the Project is needed to meet the increased electrical needs associated with anticipated development, the City of Minneapolis and several community groups, including MGC, have suggested that overhead transmission lines will make the area less desirable for developers.⁴⁵⁶ While there are no studies to support these assertions, MGC witness, Tim Springer, offered several emails from developers stating their concerns about developing near the Greenway if overhead transmission lines were present.⁴⁵⁷

289. Past experience in Minnesota indicate that the construction of high voltage transmission lines does not hamper future development. Specifically, evidence on the record indicates that certain residential developments in Brooklyn Park, Eden Prairie, Edina, and Cedar Lake occurred either after or at the same time as the construction of high voltage transmission lines.⁴⁵⁸ While the population density of these areas is less than the Project Area, the existence of development in these areas after the installation of transmission lines demonstrates that development can co-exist with existing transmission lines.⁴⁵⁹

290. The recent Coloplast headquarters development in Minneapolis is another example of commercial development located near an existing high voltage transmission line.⁴⁶⁰

291. The evidence on the record also demonstrates that there is a residential development in Longfellow that elected to develop 14 feet from the existing Elliot Park-Southtown 115 kV transmission line.⁴⁶¹

⁴⁵⁵ Ex. 23 at 8 (Zima Direct).

⁴⁵⁶ See e.g., Ex. 91 at 13 (Berkholtz Direct); Ex. 36 at 17 (Springer Direct).

⁴⁵⁷ Ex. 46 (Springer Direct, Schedule 10).

⁴⁵⁸ Exhs. 198 A-H; Asah 13 Vol. 56-66.

⁴⁵⁹ Asah 13 Vol. 107-08.

⁴⁶⁰ Ex. 188A-B (Photos of Coloplast headquarters); Berkholtz Vol. 8 at 194-95 (“Q: Are you aware of any issues relating to the development [of the Coloplast headquarters] due to its proximity to a transmission line? A: I am not.”).

⁴⁶¹ Asah 13 Vol 90-91.

(b) **Impact on Financing**

292. The City of Minneapolis has alleged that not only will the proposed overhead lines hamper development but that the lines will also impact the ability of potential homeowners and developers to obtain financing through the Federal Housing Administration (“FHA”).⁴⁶²

293. There are conflicting FHA guidelines regarding single family homes and transmission structures, that the close proximity to transmission lines is not insurmountable barrier to obtaining this type of financing, and that FHA financing is only one of numerous financing options available.⁴⁶³

294. The FHA provides mortgage insurance on loans made by FHA-approved lenders throughout the United States. FHA insures mortgages on single family and multi-family homes including manufactured homes and hospitals. Loans must meet certain requirements established by the U.S. Department of Housing and Urban Development (“HUD”) to qualify for FHA insurance.⁴⁶⁴ The HUD has issued several guidelines and handbooks regarding the minimum requirements and eligibility standards for an FHA-insured mortgage.⁴⁶⁵

295. For single family and multi-family homes, the guidelines generally provide that to qualify for an FHA-insured mortgage, the dwelling or related property improvement may not be located within the “engineering (designed) fall distance” of a transmission line pole.⁴⁶⁶ The term “fall distance” is not a term defined or utilized by the utility industry, by Xcel Energy or by federal statute or federal regulation.⁴⁶⁷ The only definition for these terms is provided in HUD Handbook 4150.2 which states that “[f]or field analysis, the appraiser may use tower height as the fall distance.”⁴⁶⁸

296. For single family homes, the handbook for appraisers and the guidebook for mortgage professionals contain conflicting rules regarding the location of transmission poles on FHA-insured property. The guidebook states that a home or

⁴⁶² Ex. 92 at 5 (Berkholtz Rebuttal).

⁴⁶³ Sautter 13 Vol. 73; *see also* Berkholtz 9 Vol. 51 (describing a financing option developed by the City of Minneapolis for the Muslim community); *see also* Pass 11 Vol. 144-45.

⁴⁶⁴ Ex. 141 at 188 (DEIS).

⁴⁶⁵ Ex. 91 at 14 (Berkholtz Direct); Ex. 10 at 25 (Asah Direct).

⁴⁶⁶ Ex. 10 at 25 (Asah Direct).

⁴⁶⁷ Ex. 10 at 25 (Asah Direct).

⁴⁶⁸ Ex. 74 (Berkholtz Direct, Schedule 8).

related property improvements may not be within the “engineered fall distance” if the home is within a high voltage transmission line easement area.⁴⁶⁹ In contrast, the appraiser handbook for single family homes requires that the home or related property improvement be located outside the “engineered fall distance” of a transmission structure regardless of whether the home is located within the easement area.⁴⁷⁰

297. Xcel Energy is unaware of any instance where an FHA loan was denied for a single family home due to its proximity to a transmission line pole.⁴⁷¹ In the past, Xcel Energy has addressed FHA’s concerns regarding poles near multi-family and single-family homes by providing an assurance letter to FHA stating that the transmission line facilities were constructed according to all applicable codes and requirements.⁴⁷²

298. In addition, the homeowner or developer can request a waiver of the FHA guidelines related to the proximity of transmission line structures.⁴⁷³

299. The City of Minneapolis has pointed to the proposed Longfellow Station Apartment project, near 38th Street and Hiawatha Avenue, as an example of a multi-family development that is having difficulty obtaining FHA financing due to its proximity to a high-voltage transmission line.⁴⁷⁴

300. A review of HUD’s correspondence with the developer indicates, however, that the proximity to the transmission line was only one of multiple factors leading to HUD’s reluctance to finance the project.⁴⁷⁵ For instance, the proposed development is located close to two heavily traveled roads and HUD determined that there were significant safety concerns given the inadequate separation between pedestrian and vehicular traffic.⁴⁷⁶ Even if the proximity of the transmission line was

⁴⁶⁹ Ex. 141 at 189 citing HUD-FHA Single Family Housing, Homeownership Center Reference Guide at 1-18f (DEIS).

⁴⁷⁰ Ex. 74 at 2-2(J) (Berkholtz Direct, Schedule 8).

⁴⁷¹ Ex. 10 at 26 (Asah Direct).

⁴⁷² Ex. 10 at 26 (Asah Direct).

⁴⁷³ Berkholtz 8 Vol. 162.

⁴⁷⁴ Berkholtz Vol. 8 at 161-162.

⁴⁷⁵ Ex. 10 at Schedule 8 (Asah Direct); Ex. 187 (HUD Letters regarding Longfellow Station Apartments); Berkholtz Vol. 8 at 169-171 (“Q: Is it your understanding that all five noncompliance issues must either be waived or mitigated before the [Longfellow] project can proceed? A: Yes, that’s my understanding.”)

⁴⁷⁶ Ex. 10 at Schedule 8 at 1 (Asah Direct).

the only impediment to financing, the Longfellow Station developers could request relocation of the pole or could request a waiver from HUD.⁴⁷⁷

D. Effects on Archeological and Historic Resources

301. Minnesota Rule 7850.4100(D) requires consideration of the effects on historic and archaeological resources.

302. Route A—Alignment A1 would have 14 properties of historic or architectural significance located within 0.1 miles of the route centerline, which includes 9 properties on the NRHP list and 4 properties eligible for listing on the NRHP.⁴⁷⁸ The majority of the route is adjacent to, or near, the CM&St.P Historic District portions of which are currently used as the Midtown Greenway. The CM&St.P Historic District is listed on the NRHP.⁴⁷⁹ The likelihood of encountering previously unidentified archeological resources along Route A—Alignment A1 is very low.⁴⁸⁰

303. Route A—Alignment A2 and Route A—Alignment A3 would be located on or adjacent to the CM&St.P Historic District, which is listed on the NRHP.⁴⁸¹ The likelihood of encountering previously unidentified archeological resources along Route A—Alignments A2 and A3 is very low.⁴⁸²

304. Route B would have 25 sites of historic or architectural significance located within 0.1 miles of the route centerline, including 9 properties listed on the NRHP and 5 properties eligible for listing on the NRHP.⁴⁸³ Route B is also adjacent to the American Swedish Institute and will likely result in the placement of a transmission structure on the northwest corner of the property and transmission lines along two sides of the property.⁴⁸⁴ This pole placement would likely result in an

⁴⁷⁷ Asah 13 Vol. 92.

⁴⁷⁸ During review of the record it was noted that the Application and Ex. 10 Schedule 3 (Asah Direct) contained numbers different from those provided by the architectural/historic properties expert in Ex. 15 Schedule 11 (Stark Surrebuttal). Mr. Stark performed a full evaluation of historic and architectural properties for his surrebuttal and, therefore, Ex. 15 Schedule 11, as modified during testimony, is the most current data available. Stark 3 Vol. 12.

⁴⁷⁹ Ex. 15 at Schedule 11 at 1 (Stark Surrebuttal).

⁴⁸⁰ Ex. 1A at 103 (Application); Ex. 10 at Schedule 3 at 4 (Asah Direct).

⁴⁸¹ Ex. 15 at Schedule 11 at 1 (Stark Surrebuttal).

⁴⁸² Ex. 1A at 103 (Application); Ex. 10 at Schedule 3 at 4 (Asah Direct).

⁴⁸³ Ex. 15 at Schedule 11 at 2-3 (Stark Surrebuttal); Stark 3 Vol. 12.

⁴⁸⁴ Ex. 11 at 9 (Asah Rebuttal); Stark 3 Vol. 31-32.

adverse effect on the American Swedish Institute.⁴⁸⁵ The likelihood of encountering previously unidentified archeological resources along Route B is very low.⁴⁸⁶

305. There are 21 sites of historic or architectural significance located within 0.1 miles of Route C, including seven properties listed on the NRHP and five properties eligible for listing on the NRHP.⁴⁸⁷ The likelihood of encountering previously unidentified archeological resources along Route C is very low.⁴⁸⁸

306. Route D would not affect any known historic or architectural resources.⁴⁸⁹ The likelihood of encountering previously unidentified archeological resources along Route D is very low.⁴⁹⁰

307. There are 48 sites of historic or architectural significance located within 0.1 miles of Route E2, including seven properties on the NRHP and 27 properties eligible for listing on the NRHP.⁴⁹¹ The likelihood of encountering previously unidentified archeological resources along Route E2 is very low.⁴⁹²

1. *Effects on Historic Resources—Route A*

308. To assess the potential effects that construction of the Project along Route A may have on historic architectural resources and archaeological resources, a “Cultural Resources Analysis of Effects for the Xcel Energy Hiawatha Project” (“Effects Study”) was conducted.⁴⁹³

309. This Effects Study was conducted by William Stark who has extensive experience assessing historic resources in the Project Area. In 2001, Stark, then an employee of The 106 Group, conducted a Phase I Architectural History Survey

⁴⁸⁵ Stark 3 Vol. at 31-32.

⁴⁸⁶ Ex. 1A at 103 (Application); Ex. 10 at Schedule 3 at 4 (Asah Direct).

⁴⁸⁷ Ex. 15 at Schedule 11 at 3-4 (Stark Surrebuttal).

⁴⁸⁸ Ex. 1A at 103 (Application); Ex. 10 at Schedule 3 at 4 (Asah Direct).

⁴⁸⁹ Ex. 15 at Schedule 11 at 4 (Stark Surrebuttal).

⁴⁹⁰ Ex. 1A at 103 (Application); Ex. 10 at Schedule 3 at 4 (Asah Direct).

⁴⁹¹ Ex. 15 at Schedule 11 at 7-9 (Stark Surrebuttal).

⁴⁹² Ex. 1A at 103 (Application); Ex. 10 at Schedule 3 at 4 (Asah Direct).

⁴⁹³ Ex. 15 at 1 (Stark Surrebuttal). The Effects Study also evaluated the impact of five of the substation alternatives, Hiawatha West, Hiawatha East, Zimmer Davis, Midtown North, and Midtown South, on historic architectural resources and archaeological resources.

Summary Report for the Proposed Midtown Greenway for Hennepin County.⁴⁹⁴ This report aimed at identifying properties within the area of potential effect (“APE”) that may be potentially eligible for listing on the National Register of Historic Places (“NRHP”).⁴⁹⁵ Stark was also the principal investigator and report author of a Phases I and II Architectural History Survey Summary Report for the Proposed Midtown Greenway prepared by The 106 Group in 2002.⁴⁹⁶ These reports were used to support the NRHP listing for the CM&St.P Historic District.⁴⁹⁷ Along with Andrea Vermeer, Stark also completed the NRHP Registration Form for the CM&St.P Historic District in 2004 that resulted in the district being listed on the NRHP on June 1, 2005.⁴⁹⁸

310. As part of the Effects Study, Stark (1) established an APE; (2) identified known historic properties; (3) conducted background research; (4) conducted a field assessment of each known historic property; (5) assessed the effects to known historic properties; and (6) applied any additional standards and guidelines specific to known historic properties.⁴⁹⁹

311. The APE for the Effects Study was defined as at least one block or and 800-foot radius around Route A and the five substation alternative sites. After the APE was determined, historic resources within the APE were identified. For purposes of the Effects Study, historic properties were determined to be known properties listed on the NRHP, properties eligible for listing on the NRHP, properties locally designated by the Minneapolis Heritage Preservation Council or those identified on the City’s 800 List.⁵⁰⁰ A total of seven properties in the APE met these criteria including: the South Side Destructor, the Sears, Roebuck Company building (“Sears Building”), the Avalon Theater, the Minneapolis Pioneers and Soldiers Cemetery (“Layman’s Cemetery”), Zinsmaster Baking Company (“Zinsmaster”), a house at 2812-2814 11th Avenue South, and the CM&St.P Historic District.⁵⁰¹ After background research and a field assessment were complete, an assessment of potential

⁴⁹⁴ Ex. 13 at 4 (Stark Direct).

⁴⁹⁵ Ex. 13 at 4 (Stark Direct).

⁴⁹⁶ Ex. 13 at 4 (Stark Direct).

⁴⁹⁷ Ex. 13 at 4 (Stark Direct).

⁴⁹⁸ Ex. 13 at 4 (Stark Direct).

⁴⁹⁹ Ex. 15 at 2 (Stark Surrebuttal).

⁵⁰⁰ Ex. 15 at 2 (Stark Surrebuttal).

⁵⁰¹ Ex. 15 at 2-3 (Stark Surrebuttal).

effects to each historic property was made for each of the three Route A alignments.⁵⁰²

312. The CM&St.P Historic District is parallel to 29th Street between Humboldt Avenue and 20th Street.⁵⁰³ The trench was constructed between 1912 and 1916 for rail use by the Chicago, Milwaukee, and St. Paul Railroad.⁵⁰⁴ It is approximately 22 feet deep and has a steeply sloped earthen wall on the north and south sides. Each north-south block over the trench features a bridge, which was built in and around 1912 to 1916.⁵⁰⁵ The trench, bridges, retaining walls and two adjacent properties were listed on the National Register of Historic Places (“NRHP”) in 2005. Several minor features also contribute to the character of the historic district. These include wooden utility poles along the southern side of the trench and a system of small patches of granite block, limestone and concrete retainers with mortar placed near the bridge abutments near the upper portion of the slope.⁵⁰⁶

313. For Route A—Alignment A1, no direct impacts to historic resources would result from construction of the Project along this overhead route but that this overhead design has the potential to cause indirect visual effects to two historic properties.⁵⁰⁷ Route A—Alignment A1 would have adverse visual and aesthetic impacts on the CM&St.P Historic District. These adverse visual and aesthetic impacts are the result of size and scale of the transmission structures compared to existing and historical utility lines.⁵⁰⁸

314. City of Minneapolis witness Dr. Jack Byers and Hennepin County witness Greg Mathis, agreed that the proposed structures would create visual impacts on the CM&St.P Historic District.⁵⁰⁹

⁵⁰² Ex. 15 at 3 (Stark Surrebuttal).

⁵⁰³ Route A is not coextensive with the CM&St.P Historic District. Route A follows 29th Street between Oakland Avenue and 20th Street.

⁵⁰⁴ Ex. 15 at Schedule 10 at 57 (Stark Surrebuttal).

⁵⁰⁵ Ex. 10 at Schedule 4 at 14 (Asah Direct); Ex. 15 at Schedule 10 at 57 (Stark Surrebuttal).

⁵⁰⁶ Ex. 15 at Schedule 10 at 59 (Stark Surrebuttal).

⁵⁰⁷ Stark found that the Hiawatha West, Hiawatha East, and Hiawatha Zimmer Davis will have no effect on the known historic resources. Ex. 15 at Schedule 10 at 97 (Stark Surrebuttal).

⁵⁰⁸ Ex. 15 at Schedule 10 at 68-69 (Stark Surrebuttal).

⁵⁰⁹ Ex. 96 at 14-15 (Byers Direct); Ex. 113 at 18-19 (Mathis Direct).

315. While these adverse visual effects to the setting of the historic district diminishes some of its character-defining features, there is no evidence that these visual effects would make the property ineligible for listing on the NRHP.⁵¹⁰

316. These potential adverse visual effects could be mitigated by using different materials or finishes for the transmission structures such as wood, laminate wood, or weathering steel materials.⁵¹¹

317. Adverse visual effects to the Zinsmaster building could result along Route A—Alignment A1 if a pole is placed at the southwest corner of Park Avenue and the railroad corridor thus obstructing important views of the Zinsmaster building along Park Avenue. This impact could be eliminated by moving the transmission structure to the east away from Park Avenue.⁵¹² Xcel Energy committed to implementing this alternative placement in the final design if Route—Alignment A1 is selected by the Commission.⁵¹³

318. Because Route A—Alignment A2 is an underground design, substantial earth moving construction may be required and that this might result in excessive vibrations to adjacent historic properties, including the historic bridges of the CM&St.P Historic District, Sears building, and Zinsmaster building.⁵¹⁴ Stark recommended that the bridges and buildings should be monitored during construction to ensure that historic properties are not damaged by these vibrations.

319. While such damage is unlikely, Xcel Energy committed to work with City and County engineers or other structural experts to determine appropriate evaluation and monitoring for the historic properties of concern.⁵¹⁵ Route A—Alignment A2 may also have a direct effect to historic retaining walls east of the 10th Avenue bridge, where the line transitions from 29th Street to the base of the trench, and to the retaining walls west of the 18th Avenue bridge, where the line transitions from the trench to the 29th Street grade.⁵¹⁶ Xcel Energy has committed to avoiding

⁵¹⁰ Ex. 15 at Schedule 10 at 98 (Stark Surrebuttal).

⁵¹¹ Ex. 15 at Schedule 10 at 98 (Stark Surrebuttal).

⁵¹² Ex. 15 at Schedule 10 at 98 (Stark Surrebuttal).

⁵¹³ Ex. 12 at 1 (Asah Surrebuttal).

⁵¹⁴ Ex. 15 at Schedule 10 at 98 (Stark Surrebuttal).

⁵¹⁵ Ex. 12 at 3 (Asah Surrebuttal).

⁵¹⁶ Ex. 15 at Schedule 10 at 99 (Stark Surrebuttal).

destruction or removal of these historic retaining walls if Route A—Alignment A2 is selected.⁵¹⁷

320. Similarly, for Route A—Alignment A3, the Effects Study determined that this underground alignment has the potential to cause adverse effects from vibrations created during construction on the historic bridges of the CM&St.P Historic District, Sears building, and Zinsmaster building.⁵¹⁸ Xcel Energy stated that appropriate measures will be taken to monitor these vibrations so that impacts to historic resources are prevented.⁵¹⁹

2. Effects on Archeological Resources—Route A

321. The potential impacts on archeological resources within the Project Area were first evaluated in the cultural resources assessment that was submitted along with the Application.⁵²⁰ This initial assessment, which examined Route A—Alignment A1 and A2, determined that discovery of intact precontact archaeological resources along these routes was unlikely for two reasons. First, the Project Area⁵²¹ is a considerable distance from water sources or wetlands and does not exhibit any topographically prominent features.⁵²² Second, because the proposed transmission lines will be constructed within existing right-of-ways, which had been disturbed through road construction and utility installation, any potential archeological resources would not likely be intact.⁵²³ Potential effects of Route A on archaeological resources, specifically streetcar lines and sewer lines, were further evaluated in the Effects Study.⁵²⁴

322. With regard to sewer lines, Andrew Bielakowski, the only archeologist who testified in this proceeding, clarified that not all old infrastructure facilities are considered archeologically significant.⁵²⁵ In the case of sewers in Minneapolis, only the first sewer “boxes” made out of wood beginning in 1871 would be considered

⁵¹⁷ Ex. 12 at 2 (Asah Surrebuttal).

⁵¹⁸ Ex. 15 at Schedule 10 at 99 (Stark Surrebuttal).

⁵¹⁹ Ex. 12 at 3 (Asah Surrebuttal).

⁵²⁰ Ex. 1B at Appendix E (Application Appendices).

⁵²¹ The Project Area is bordered by 26th Avenue South on the east, Interstate 35W (“I-35W”) on the west, East 31st Street to the south and East 26th Street on the north (“Project Area”).

⁵²² Ex. 16 at 3 (Bielakowski Direct).

⁵²³ Ex. 16 at 3 (Bielakowski Direct).

⁵²⁴ Ex. 15 at Schedule 10 at 19 (Stark Surrebuttal).

⁵²⁵ Ex. 17 at 1 (Bielakowski Rebuttal).

archeologically significant.⁵²⁶ Given that the Project Area was primarily developed in the 1890s, it is unlikely that these early sewer systems would have existed in the Project Area.⁵²⁷

323. With regard to streetcar rails, the potential impacts to streetcar rails will depend on the route and design of the proposed transmission line. Overhead transmission lines along Route A—Alignment A1 are unlikely to disturb abandoned streetcar rails because the transmission poles will be placed within the boulevard section of the streets while streetcar rail tracks were historically located within the center of streets.⁵²⁸

324. Underground lines, however, could potentially disturb abandoned rail tracks. There are three locations where the proposed transmission lines, if constructed along Route A—Alignment A2 could potentially cross abandoned rail tracks associated with streetcars.⁵²⁹ These locations are at below ground alternative crossings with Chicago, Bloomington, and Cedar Avenues.⁵³⁰ Route A—Alignment A3 would not impact abandoned streetcar rails because this alignment does not directly cross any of these City streets.⁵³¹ The possibility of encountering intact streetcar tracks at these locations is remote because all of these streets have been resurfaced, upgraded and improved over the last century.⁵³² Even if intact streetcar tracks were discovered, the archeological value of streetcar tracks in this area is very low because these particular streetcar lines have been well documented and are largely understood.⁵³³

E. Effects on Natural Environment

325. Minnesota's high voltage transmission line routing criteria require consideration of the proposed routes' effect on the natural environment, including effects on air and water quality resources and flora and fauna.⁵³⁴

⁵²⁶ Ex. 17 at 1 (Bielakowski Rebuttal).

⁵²⁷ Ex. 17 at 4 (Bielakowski Rebuttal).

⁵²⁸ Ex. 17 at 2 (Bielakowski Rebuttal).

⁵²⁹ Ex. 17 at 2 (Bielakowski Rebuttal).

⁵³⁰ Ex. 17 at 2 (Bielakowski Rebuttal); Bielakowski 3 Vol. 78.

⁵³¹ Ex. 17 at 2 (Bielakowski Rebuttal).

⁵³² Ex. 17 at 3 (Bielakowski Rebuttal).

⁵³³ Ex. 17 at 3 (Bielakowski Rebuttal).

⁵³⁴ Minn. Stat. §§ 216E.03, subd. 7(b)(1) and (2); Minn. R. 7850.4100(E).

1. Air Quality

326. Construction of the Project will result in temporary air quality impacts caused by, among other things, construction-vehicle emissions and fugitive dust from right-of-way preparation.⁵³⁵

327. Xcel Energy anticipates nominal impacts to air quality, and therefore, no mitigative measures are proposed.⁵³⁶

2. Water Quality and Resources

328. There are no water bodies located within the Project Area, with the nearest water body to the Project Area located 0.2 miles south of the 31st Street portion of Route C (Powderhorn Lake).⁵³⁷

329. During construction, standard erosion protection matters and the Project is subject to requirements of the National Pollution Discharge Elimination System and State Disposal System Construction Stormwater General Permit. Xcel Energy will obtain a General Permit from the MPCA and comply with all applicable requirements.⁵³⁸

330. Additionally, the Project is subject to the City of Minneapolis Erosion and Sediment Control for Land Disturbance Activities Ordinance and the Minnehaha Creek Watershed District (“MCWD”) Rule B. Xcel Energy will obtain an Erosion and Sediment Control Plan for review by the City of Minneapolis and an Erosion Control Permit from the MWCD and comply with all applicable requirements.⁵³⁹

3. Flora

331. Impacts to existing vegetation for all transmission line routes would be minor.⁵⁴⁰

332. Route A—Alignment A1 would require the removal of or significantly impact approximately five trees.⁵⁴¹

⁵³⁵ Ex. 1A at 95 (Application); Ex. 10 at Schedule 3 at 5 (Asah Direct).

⁵³⁶ Ex. 1A at 95 (Application).

⁵³⁷ Ex. 1A at 95 (Application).

⁵³⁸ Ex. 1A at 96 (Application).

⁵³⁹ Ex. 1A at 96 (Application).

⁵⁴⁰ Ex. 10 at Schedule 3, p. 5 (Asah Direct).

333. Route A—Alignment A2 would require the removal of or significantly impact approximately two trees.⁵⁴²

334. Route A—Alignment A3 would require removal of or significantly impact approximately four trees.⁵⁴³

335. Route B would require removal of or significantly impact approximately eight trees.⁵⁴⁴

336. Route C would require removal or significantly impact approximately 19 trees, including three mature American elm trees.⁵⁴⁵

337. Route D would require removal of or significantly impact approximately 43 trees if transmission lines are placed under the sidewalk area.⁵⁴⁶

338. Route E2 would require removal of or significantly impact approximately four trees.⁵⁴⁷

4. Fauna

339. Impacts to fauna are anticipated to be minor and temporary in nature. Because of the highly developed urban area of the Project Area the fauna generally present are adapted to high levels of anthropogenic disturbance.⁵⁴⁸

F. Effects on Rare and Unique Natural Resources

340. Minnesota's high voltage transmission line routing criteria require consideration of the proposed routes' effect on rare and unique natural resources.⁵⁴⁹

341. There are nine known occurrences of rare species or special communities identified within one mile of the Project Area.⁵⁵⁰

⁵⁴¹ Ex. 1A at 104-05; Ex. 10 at Schedule 3 at 5 (Asah Direct).

⁵⁴² Ex. 1A at 104-05; Ex. 10 at Schedule 3 at 5 (Asah Direct).

⁵⁴³ Ex. 1A at 104-05; Ex. 10 at Schedule 3 at 5 (Asah Direct).

⁵⁴⁴ Ex. 1A at 104-05; Ex. 10 at Schedule 3 at 5 (Asah Direct).

⁵⁴⁵ Ex. 1A at 104-05; Ex. 10 at Schedule 3 at 5 (Asah Direct).

⁵⁴⁶ Ex. 1A at 104-05; Ex. 10 at Schedule 3 at 5 (Asah Direct).

⁵⁴⁷ Ex. 1A at 104-05; Ex. 10 at Schedule 3 at 5 (Asah Direct).

⁵⁴⁸ Ex. 1A at 106 (Application); Ex. 10 at Schedule 3 at 5 (Asah Direct).

⁵⁴⁹ Minn. Stat. § 216E.03, subd. 7(b)(1); Minn. R. 7850.4100(F).

342. No impacts to rare and unique natural resources are anticipated.⁵⁵¹

G. Application of Various Design Considerations

343. Minnesota's high voltage transmission line routing criteria require consideration of the Project's applied design options that maximize energy efficiencies, mitigate adverse environmental effects, and could accommodate expansion of transmission or generating capacity.

344. Route A—Alignments A1, A2 and A3, Route B, Route C, Route D, and Route E2 are designed with sufficient capacity to meet both existing and anticipated distribution load in the Midtown area.⁵⁵²

H. Use or Paralleling of Existing Right-of-Way, Survey Lines, Natural Division Lines and Agricultural Field Boundaries

345. Minnesota's high voltage transmission line routing criteria require consideration of the proposed routes' use or paralleling of existing rights-of-way, survey lines, natural division lines, and agricultural field boundaries.⁵⁵³

346. Route A—Alignments A1, A2 and A3, Route B, Route C, Route D, and Route E2 have been proposed generally within existing transportation rights-of-way. Additional right-of-way (approximately 10-20 feet) may be required to allow for line maintenance and tree trimming within private property adjacent to the proposed routes.⁵⁵⁴

I. Use of Existing Transportation, Pipeline, and Electrical Transmission System Right-of-Way

347. Minnesota's high voltage transmission line routing criteria require consideration of the proposed routes' use or existing transportation, pipeline and electrical transmission system rights-of-way.⁵⁵⁵

⁵⁵⁰ Ex. 1A at 105 (Application); Ex. 10 at Schedule 3 at 6 (Asah Direct).

⁵⁵¹ Ex. 1A at 105 (Application); Ex. 10 at Schedule 3 at 6 (Asah Direct).

⁵⁵² Ex. 26 at 3 (Standing Direct); Ex. 1A at 41 (Application).

⁵⁵³ Minn. Stat. § 216E.03, subd. 7(b)(9); Minn. R. 7850.4100(H).

⁵⁵⁴ Ex. 1A at 105 (Application); Ex. 10 at Schedule 3 at 6 (Asah Direct).

⁵⁵⁵ Minn. Stat. § 216E.03, subd. 7(b)(8); Minn. R. 7850.4100(J).

348. Route A—Alignments A1, A2 and A3, Route B, Route C, Route D, and Route E2 have been proposed within existing rights-of-way.⁵⁵⁶

J. Electrical System Reliability

349. Minnesota’s high voltage transmission line routing criteria require consideration of the Project’s impact on electrical system reliability.⁵⁵⁷

350. The proposed Project is designed to provide increased electrical system reliability by addressing feeder circuit overloads and service interruptions that have been experienced in south Minneapolis over the past decade.⁵⁵⁸

351. The specific Project configuration was determined based on several engineering studies. These studies concluded that two new distribution sources,⁵⁵⁹ i.e., transformers were needed in the Focused Study Area to ensure adequate system support.⁵⁶⁰

352. The two new substations will provide the required new distribution sources.⁵⁶¹ One of these sources will be a new transformer that will be located at the Hiawatha Substation which will tap the existing Elliot Park–Southtown 115 kV transmission line, essentially creating two transmission sources into the Hiawatha Substation, one from Elliot Park Substation and one from Southtown Substation.⁵⁶² The second distribution source will be a new transformer located at the Midtown Substation.⁵⁶³

⁵⁵⁶ Ex. 1A at 105 (Application); Ex. 10 at Schedule 3 at 6 (Asah Direct).

⁵⁵⁷ Minn. Stat. § 216E.03, subd. 7(b)(10); Minn. R. 7850.4100(K).

⁵⁵⁸ The Project Area is currently served by distribution feeders located outside the Project Area. Approximately 60 percent of the needed power comes from the Southtown Substation located at Hiawatha Avenue and 38th Street. The next largest portion of power for the area comes from the Aldridge Substation located north of Interstate 394 near Interstate 94. The next largest portion of power is supplied by the Elliot Park substation, located east of the Metrodome. Each of these substations provides the power to the Project Area through a long series of distribution feeder circuits which traverse many neighborhoods to reach the Midtown area. Zima 6 Vol 60.

⁵⁵⁹ A “distribution source” is a term used to describe substation transformers with associated feeder circuits. Ex. 24 at 2 (Zima Rebuttal).

⁵⁶⁰ Ex. 1A at 16 (Application); Ex. 24 at 2 (Zima Rebuttal).

⁵⁶¹ Ex. 24 at 2 (Zima Rebuttal).

⁵⁶² Ex. 24 at 2 (Zima Rebuttal).

⁵⁶³ Ex. 24 at 2 (Zima Rebuttal).

353. The evidence on the record demonstrates that Route A—Alignments A1, A2, and A3, Route B, Route C, Route D and Route E2 will meet the identified need for two new distribution sources, will provide reliable power sources to the Midtown Substation and Hiawatha Substation and will support the reliable operation of the transmission system.⁵⁶⁴

354. Several parties have questioned the reliability of overhead transmission lines compared to underground lines by pointing out that underground lines have a lower incidence of outages.⁵⁶⁵ While overhead transmission lines are generally subject to fewer outages than overhead transmission lines, the repair times are much longer than overhead lines.⁵⁶⁶ Typical overhead line outages are repaired and back in service 10-24 hours after the outage event.⁵⁶⁷ In contrast, typical underground line outages are repaired and the line placed back in service two or three weeks after the outage event.⁵⁶⁸

355. The reliability of the overhead design for Route A was questioned by Hennepin County witness, Larry Schedin, who testified that the double circuit overhead design along Route A—Alignment does not meet North American Electrical Reliability Corporation (“NERC”) criteria requiring two independent sources to the Midtown Substation.⁵⁶⁹

356. The two proposed transmission lines, whether overhead or underground, would be radial lines serving load from a single source.⁵⁷⁰ Consequently, there are not considered part of the Bulk Electric System and NERC planning criteria related to double circuit designs do not apply.⁵⁷¹

357. Further Xcel Energy witness Scott Zima testified that the proposed transmission facilities do not need to be located on separate right-of-way or

⁵⁶⁴ Ex. 1A at 106 (Application); Ex. 10 at Schedule 3 at 6 (Asah Direct).

⁵⁶⁵ Ex. 110 at 5 (Schedin Rebuttal); Ex. 111 at 1 (Schedin Surrebuttal).

⁵⁶⁶ Ex. 18 at 9 (Gallay Direct).

⁵⁶⁷ Ex. 18 at 9 (Gallay Direct).

⁵⁶⁸ Ex. 18 at 9 (Gallay Direct).

⁵⁶⁹ Ex. 109 at 8 (Schedin Direct); Schedin 9 Vol. 198-200; Schedin testified that Routes B and C would meet this criteria because two lines would be constructed on single-circuit structures. Schedin 9 Vol. 186.

⁵⁷⁰ Ex. 26 at 4 (Standing Direct).

⁵⁷¹ Ex. 26 at 4 (Standing Direct).

underground to meet the Project needs.⁵⁷² The two new lines will provide reliable power sources to the Midtown Substation and the Project will provide the necessary capacity for the Midtown area.⁵⁷³ In the unlikely event of a simultaneous outage of both lines, the load at the Midtown Substation could be served by the distribution system components for a short time.⁵⁷⁴

K. Costs of Constructing, Operating, and Maintaining the Facility

358. Minnesota's high voltage transmission line routing criteria require consideration of the proposed route's cost of construction, operation and maintenance.⁵⁷⁵

1. Cost Comparison of Route Alternatives – Transmission Related Facilities

359. Construction cost estimates are subject to change as they can be affected considerably by several variables such as the timing of construction, availability of construction crews and components, and the final route selected by the Commission.⁵⁷⁶

360. The estimated construction transmission line cost is \$2.8 million for Route A—Alignment A1.⁵⁷⁷ The total estimated cost for the transmission lines and substations is \$28.2 million.⁵⁷⁸

361. The estimated construction transmission line cost is \$13.6 million for Route A—Alignment A2.⁵⁷⁹ The total estimated cost for the transmission lines and substations is \$39.0 .⁵⁸⁰

362. The estimated construction transmission line cost is \$12.7 million for Route A—Alignment A3.⁵⁸¹ The total estimated cost for the transmission lines and substations is \$38.1 million.⁵⁸²

⁵⁷² Ex. 24 at 2 (Zima Rebuttal).

⁵⁷³ Ex. 24 at 2-3 (Zima Rebuttal).

⁵⁷⁴ Ex. 24 at 3 (Zima Rebuttal).

⁵⁷⁵ Minn. R. 7850.4100(L).

⁵⁷⁶ Gallay 4 Vol. 10-11.

⁵⁷⁷ Ex. 18 at 11 (Gallay Direct).

⁵⁷⁸ Ex. 10 at Schedule 3 at 6 (Asah Direct).

⁵⁷⁹ Ex. 18 at 11 (Gallay Direct).

⁵⁸⁰ Ex. 10 at Schedule 3 at 6 (Asah Direct).

⁵⁸¹ Ex. 18 at 11 (Gallay Direct).

363. The estimated construction transmission line cost is \$4.6 million for Route B.⁵⁸³ The total estimated cost for the transmission lines and substations is \$30.0 million.⁵⁸⁴

364. The estimated construction transmission line cost is \$5.7 million for Route C.⁵⁸⁵ The total estimated cost for the transmission lines and substations is \$31.1 million.⁵⁸⁶

365. The estimated construction transmission line cost is \$15.5 million for Route D.⁵⁸⁷ The total estimated cost for the transmission lines and substations is \$40.9 million.⁵⁸⁸

366. The estimated construction transmission line cost is \$4.7 million for Route E2.⁵⁸⁹ The total estimated cost for the transmission lines and substations is \$30.1 million.⁵⁹⁰

367. The record evidence demonstrates that Route A—Alignment A1 is the least cost alternative to construct.

368. For all of the overhead designs, operating and maintenance costs for the transmission line will be nominal for several years since the line will be new, and minimal vegetation maintenance is required.⁵⁹¹ Annual operating and maintenance costs for the 115 kV transmission voltages across Xcel Energy's Upper Midwest system have averaged approximately \$300 to \$500 per mile of transmission right-of-way over the last five years.⁵⁹² The principal operating and maintenance cost will be

⁵⁸² Ex. 10 at Schedule 3 at 6 (Asah Direct).

⁵⁸³ Ex. 11 at 8 (Asah Rebuttal).

⁵⁸⁴ Ex. 10 at Schedule 3 at 6 (Asah Direct).

⁵⁸⁵ Ex. 11 at 8 (Asah Rebuttal).

⁵⁸⁶ Ex. 10 at Schedule 3 at 6 (Asah Direct).

⁵⁸⁷ Ex. 18 at 11 (Gallay Direct).

⁵⁸⁸ Ex. 10 at Schedule 3 at 6 (Asah Direct).

⁵⁸⁹ Ex. 18 at 11 (Gallay Direct).

⁵⁹⁰ Ex. 10 at Schedule 3 at 6 (Asah Direct).

⁵⁹¹ Ex. 1A at 20 (Application).

⁵⁹² Ex. 1A at 20 (Application).

inspections, which, for the overhead route alternatives, would consist of a bi-annual ground survey.⁵⁹³

369. For the underground designs, it is not expected that there will be any operating and maintenance costs because it is not possible to physically inspect the facilities.⁵⁹⁴ However, should a fault occur, the time required to repair an underground failure is much longer and the cost is much higher than above-ground facilities.⁵⁹⁵

2. Cost Allocation

370. The incremental increased cost of the underground design options (Route A—Alignments A2 and A3 and Route D) is significant.

371. While the issue of cost allocation is not part of a route permit proceeding such as this, in response to requests from several parties regarding how the incremental costs of undergrounding the proposed transmission lines will be allocated, Xcel Energy provided evidence and witness testimony regarding this issue.

372. The means of cost recovery is dependent on the facilities' classification under the Company's approved tariff, Minnesota Electric Rate Book-MPUC No. 2 ("Tariff"), as "Standard Facilities" or "Special Facilities."⁵⁹⁶

373. The costs associated with Standard Facilities are generally recovered from all customers collectively through rates specified in the Company's standard service tariffs.⁵⁹⁷

374. In those cases where a customer or group of customers wants the Company to provide Special Facilities at higher costs than that of Standard Facilities, the terms and conditions of the Company's General Rules and Regulations apply.⁵⁹⁸

375. Generally, if a facility is a Special Facility, the difference in costs between the Standard Facility and the Special Facility ("Excess Expenditure") is borne by the

⁵⁹³ Ex. 1A at 20 (Application).

⁵⁹⁴ Ex. 1A at 20 (Application).

⁵⁹⁵ Ex. 1A at 20 (Application).

⁵⁹⁶ Ex. 27 at 2 (Lehman Direct).

⁵⁹⁷ Ex. 27 at 2 (Lehman Direct).

⁵⁹⁸ Ex. 27 at 2-3 (Lehman Direct).

customer or group of customers who requested or required the Company to incur the Excess Expenditure.

376. In all cases, the recovery is subject to the oversight of the Commission.⁵⁹⁹

377. The determination of the appropriate design for the Hiawatha Project will be made by the Commission after full development of the record in this proceeding regarding all of the routing criteria and relevant impacts.⁶⁰⁰

378. If underground is the selected design option, the Commission will then decide whether undergrounding the proposed transmission facilities is a Special Facility or Standard Facility.

379. Xcel Energy is prepared to build with an overhead or underground design option consistent with the Commission's decision in this case. Xcel Energy will seek appropriate cost recovery for whichever design option is selected.⁶⁰¹

L. Adverse Human and Natural Environmental Effects Which Cannot be Avoided

380. Minnesota's high voltage transmission line routing criteria require consideration of the adverse human and natural environmental effects which cannot be avoided, for each proposed route.⁶⁰²

381. Unavoidable adverse impacts include the physical impacts to the land due to the construction of the Project.⁶⁰³

382. The impacts to land for Route A—Alignments A2 and A3 and Route D will be greater than the other routes due to greater ground disturbance necessary for underground construction.⁶⁰⁴ For instance, if trenching is used to construct the

⁵⁹⁹ Ex. 27 at 3 (Lehman Direct).

⁶⁰⁰ While the City of Minneapolis, Hennepin County, and several other parties have stated that the incremental undergrounding costs should be spread across all Northern States Power Company's rate payers (Ex. 109 at 11 (Schedin Direct)), the determination of the appropriate cost allocation methodology is a Commission decision.

⁶⁰¹ Lehman 7 Vol. at 173-174.

⁶⁰² Minn. Stat. §§ 216E.03, subd. 7(b)(5) and (6); Minn. R. 7850.4100(M).

⁶⁰³ Ex. 10 at Schedule 3 at 7 (Asah Direct).

⁶⁰⁴ Ex. 10 at Schedule 3 at 7 (Asah Direct).

underground facilities, this construction method requires extensive soil disturbance for the entire length of line.⁶⁰⁵

383. Xcel Energy will implement measures as identified by regulatory agencies to minimize unavoidable impacts.⁶⁰⁶

M. Irreversible and Irretrievable Commitments of Resources

384. Minnesota's high voltage transmission line routing criteria consideration of the irreversible and irretrievable commitments of resources that are necessary for each proposed route.⁶⁰⁷

385. Irreversible and irretrievable resource commitments are related to the use of nonrenewable resources and the effects that the use of those resources have on future generations.⁶⁰⁸ Irreversible effects result primarily from the use or destruction of a specific resource that cannot be replaced within a reasonable time frame.⁶⁰⁹ Irretrievable resource commitments involve the loss in value of an affected resource that cannot be restored as a result of action.⁶¹⁰

386. There are few commitments of resources associated with this Project that are irreversible and irretrievable, but those few resources primarily relate to construction of the Project.⁶¹¹

387. Only construction resources, such as concrete, steel and hydrocarbon fuels, will irreversibly and irretrievably committed to this Project.⁶¹²

388. The overall length of Route A—Alignment A1 is less than Route B, Route C and Route E2. As a result, fewer poles will be needed for Route A, resulting in fewer commitments of resources.⁶¹³

⁶⁰⁵ Ex. 10 at 10 (Asah Direct).

⁶⁰⁶ Ex. 10 at Schedule 3 at 7 (Asah Direct).

⁶⁰⁷ Minn. Stat. § 216E.03, subd. 7(b)(11); Minn. R. 7850.4100(N).

⁶⁰⁸ Ex. 2 at 4-14 (Application).

⁶⁰⁹ Ex. 2 at 4-14 (Application).

⁶¹⁰ Ex. 2 at 4-14 (Application).

⁶¹¹ Ex. 10 at Schedule 13 at 7 (Asah Direct).

⁶¹² Ex. 10 at Schedule 3 at 7 (Asah Direct).

⁶¹³ Ex. 10 at Schedule 3 at 7 (Asah Direct).

II. APPLICATION OF ROUTING CRITERIA TO MIDTOWN SUBSTATION

A. Effects on Human Settlement

1. Displacement

389. The Midtown North site is located on an area that includes the former Xcel Energy Oakland Substation, a condemned triplex, and vacant land that is currently owned by Brown Campbell Enterprises.⁶¹⁴ As a result, the Midtown North site would only require removal of this condemned triplex.

390. The Midtown South site includes two properties owned and occupied by Brown Campbell Enterprises and would require removal of multiple building structures.⁶¹⁵

391. The Mt-28N site is located on private green space owned by Wells Fargo.⁶¹⁶ Wells Fargo has stated that placement of a substation at Mt-28N could impact its ability to expand at its current location.⁶¹⁷

392. The Mt-28S site is paved lot owned by Wells Fargo and is currently used for employee parking.⁶¹⁸ Wells Fargo has plans to use this site for expansion of its existing south parking ramp.⁶¹⁹

2. Noise

393. Several parties expressed concerns regarding noise because Midtown North and Midtown South are in close proximity to homes.⁶²⁰

394. A noise assessment conducted by Xcel Energy determined the existing ambient sound levels in the vicinity of the proposed Midtown North site and to assess the potential noise impacts on the surrounding residential area and the Midtown

⁶¹⁴ Ex. 1A at 29 (Application).

⁶¹⁵ Ex. 1A at 31 (Application).

⁶¹⁶ Ex. 127 at 7 (Olson Direct).

⁶¹⁷ Ex. 127 at 7 (Olson Direct).

⁶¹⁸ Ex. 127 at 6 (Olson Direct).

⁶¹⁹ Ex. 127 at 6-7 (Olson Direct).

⁶²⁰ Ex. 21 at 3 (McNelly Rebuttal); Ex. 1A at 78 (Application).

Greenway when the substation is operational.⁶²¹ Potential impacts were assessed with respect to the State of Minnesota nighttime noise standards and the existing ambient sound level.⁶²² This study concluded that based on an assessment of existing and predicted sound levels in the vicinity of the proposed Midtown North site, that the noise levels from the substation would be in compliance with the State of Minnesota noise standards and would have a minimum impact on existing sound levels.⁶²³

395. The Midtown Substation will be surrounded by an architecturally-designed, decorative wall which will aid in mitigating noise generated by the operation of the substation.⁶²⁴

396. The Company plans to install low noise transformers, sound absorbing materials for the substation walls and rubber matting under the substation transformers.⁶²⁵

397. The evidence on the record confirms that the Midtown Substation alternatives will be designed such that the MPCA and City of Minneapolis noise requirements are satisfied.

3. Aesthetics

398. The Midtown North site will be a high-profile substation with an average height of approximately 45 feet.⁶²⁶ The Midtown North site would be landscaped on the south, east and west sides as practical and walled on four sides with an architecturally pleasing design⁶²⁷ and will use graffiti-resistant surface.⁶²⁸

399. The Midtown South site would likely be a low-profile substation with an average height of approximately 45 feet.⁶²⁹ The Midtown South site would have approximately 10 feet of landscaping on the east and west sides and would be walled

⁶²¹ Ex. 12 at Schedule 14 (Asah Surrebuttal).

⁶²² Ex. 12 at 3 (Asah Surrebuttal).

⁶²³ Ex. 12 at 3 (Asah Surrebuttal); Ex. 12 at Schedule 14 at 28 (Asah Surrebuttal).

⁶²⁴ Ex. 1A at 75 (Application); Ex. 21 at 3 (McNelly Rebuttal).

⁶²⁵ Ex. 21 at 3 (McNelly Rebuttal)

⁶²⁶ Ex. 1A at 81 (Application).

⁶²⁷ Ex. 20 at 9 (McNelly Direct).

⁶²⁸ FEIS at 341, eDocket Document No. 20106-51326-01 (June 7, 2010).

⁶²⁹ Ex. 20 at 10 (McNelly Direct).

on four sides with an architecturally pleasing design⁶³⁰ and a graffiti-resistant surface.⁶³¹

400. Walls would also be constructed around the Mt-28N and Mt-28S sites.⁶³²

401. The walls surrounding the substations will be architecturally designed to complement the existing character of the Project Area and will be graffiti-resistant.⁶³³

402. The Midtown North site would not pose a significant change to area aesthetics since it would be replacing an existing substation located along Oakland Avenue.⁶³⁴

403. The Midtown South site would change the visual character along Portland Avenue and Oakland Avenue.⁶³⁵

404. The Mt-28N site is a green space on the Wells Fargo campus and a substation may not be compatible with the surrounding area.⁶³⁶

405. The Mt-28S site is a parking lot. The materials and industrial character of the Mt-28S site would not be compatible with the adjacent area but the area is relatively isolated.⁶³⁷

4. Cultural Values

406. The evidence on the record confirms that the Midtown Substation alternatives will not impact cultural values.⁶³⁸

5. Recreation

407. The Midtown North site, Midtown South site and Mt-28S site will be located adjacent to the Midtown Greenway.⁶³⁹

⁶³⁰ Ex. 20 at 9-10 (McNelly Direct).

⁶³¹ FEIS at 343, eDocket Document No. 20106-51326-01 (June 7, 2010).

⁶³² Ex. 20 at 9 (McNelly Direct).

⁶³³ Ex. 20 at 9 (McNelly Direct).

⁶³⁴ Ex. 10 at Schedule 7 (Asah Direct); Ex. 1A at 81 (Application).

⁶³⁵ FEIS at 343, eDocket Document No. 20106-51326-01 (June 7, 2010).

⁶³⁶ FEIS at 344, eDocket Document No. 20106-51326-01 (June 7, 2010).

⁶³⁷ FEIS at 344, eDocket Document No. 20106-51326-01 (June 7, 2010).

⁶³⁸ Ex. 1A at 84 (Application).

408. The Mt-28N Substation will be located within 0.5 miles of several recreational areas, including Waite House, Clinton Field, Dorilus Morrison Park, Lake Street Corridor, the Minneapolis Institute of Art, Stewart Field and Washburn Fair Oaks Park.⁶⁴⁰

409. There will be temporary impacts to the Midtown Greenway and other recreation facilities during the construction of the Midtown Substation.⁶⁴¹

410. The evidence on the record confirms that construction and operation of the Midtown Substation alternatives will not have long-term impact to recreation facilities.⁶⁴²

6. Public Services

411. None of the Midtown Substation alternatives will disrupt roadway, bus transit, railway, airport or emergency services facilities.⁶⁴³

B. Effects on Public Health and Safety

412. The Midtown Substation will be designed and constructed in compliance with local, state, NESC and Company standards.⁶⁴⁴

413. The Midtown Substation will be fenced and access limited to authorized personnel. Appropriate signage will be posted warning the public of the risk of coming into contact with the energized equipment.⁶⁴⁵

414. Several parties and members of the public expressed concern about being exposed to EMF from the Midtown Substation.⁶⁴⁶

415. The highest projected magnetic field level during peak operation at zero feet from the proposed wall or fence of the Midtown Substation is 11.64 mG.⁶⁴⁷

⁶³⁹ Ex. 20 at 7-9 (McNelly Direct).

⁶⁴⁰ Ex. 148 (Map of Substation Alternatives).

⁶⁴¹ FEIS at 320, June 7, 2010, eDocket Document No. 20106-51326-01.

⁶⁴² Ex. 1A at 84-85 (Application).

⁶⁴³ Ex. 1A at 85 (Application).

⁶⁴⁴ Ex. 1A at 71 (Application).

⁶⁴⁵ Ex. 1A at 71 (Application).

⁶⁴⁶ See e.g., Ex. 143 at 90 (Public Comment from Kevin Loeki).

416. There is no indication that any significant impact on human health and safety from EMFs will arise from the Midtown Substation, regardless of which alternative is chosen.

C. Effects on Land Based Economies

417. There are no existing forestry, mining or commercial agricultural activities in the Project Area.⁶⁴⁸

418. The evidence on the record confirms the Midtown Substation, regardless of alternative, will not impact land based economies.

D. Effects on Archaeological and Historical Resources

419. The Midtown North substation site and Midtown South substation site are adjacent to the CM&St.P Historic District.⁶⁴⁹

420. As additional space will likely be needed to accommodate all of the required substation equipment at the Midtown North site, a retaining wall and possibly a transmission structure may need to be constructed within the CM&St.P Historic District.⁶⁵⁰ The design of this retaining wall has not yet been determined nor has the placement of the pole been determined.⁶⁵¹ The construction of this retaining wall will change embankment on the CM&St.P Historic District. However, unlike other projects that attempted to alter or demolish the historic retaining walls currently located within the CM&St.P Historic District, the construction of a retaining wall at the Midtown North site construction will not affect these historic retaining walls. In addition, any implementation of any form of transit within the CM&St.P Historic District will inevitably require changes to the embankment and possibly require the installation of new retaining walls.⁶⁵²

⁶⁴⁷ Ex. 155 (Xcel Energy Response to MGC IR No. 32).

⁶⁴⁸ Ex. 1A at 87 (Application).

⁶⁴⁹ Ex. 1A at 91-94 (Application); Ex 20 at 7-9 (McNelly Direct).

⁶⁵⁰ Ex. 1A at 30 (Application); McNelly 5 Vol. 83.

⁶⁵¹ McNelly 5 Vol. 82.

⁶⁵² Ex. 10 at 14 (Asah Direct); Michalko 9 Vol. 70.

421. The Midtown North site was historically occupied by a coal yard and then a substation. As a result, the site is unlikely to contain archaeological resources.⁶⁵³

422. The Midtown South site would be constructed on the site of a former auto sales and service building and curling club. This property was determined ineligible for the NRHP.⁶⁵⁴

423. The Midtown South site has low potential for containing archaeological resources.⁶⁵⁵

424. Two NRHP listed properties, Bridge No. 92348 and the CM&St.P Grade Separation Historic District are located in proximity to Mt-28N Substation and Mt-28S Substation sites.⁶⁵⁶

E. Effects on Natural Environment

425. During the construction of the Midtown Substation, there will be limited emissions from vehicles and other construction equipment and fugitive dust.⁶⁵⁷

426. There are no surface water bodies, wetlands or floodplains located within the Project Area and as a result the Midtown Substation will not impact water quality.⁶⁵⁸

427. The Midtown North site will require the removal of approximately one tree.⁶⁵⁹

428. The Midtown South site will require the removal of approximately one tree.⁶⁶⁰

429. Approximately 170 trees will be impacted by the Mt-28N site.⁶⁶¹

⁶⁵³ Ex. 1A at 91-94 (Application); Ex. 15 at Schedule 10 at 19 (Stark Rebuttal).

⁶⁵⁴ Ex. 1A at 91-94 (Application); Ex. 15 at Schedule 10 at 19 (Stark Rebuttal).

⁶⁵⁵ Ex. 1A at 91-94 (Application).

⁶⁵⁶ Ex. 1A at 91-94 (Application).

⁶⁵⁷ Ex. 1A at 94 (Application).

⁶⁵⁸ Ex. 1A at 96 (Application).

⁶⁵⁹ Ex. 1A at 97 (Application); FEIS at 358, eDocket Document No. 20106-51326-01 (June 7, 2010).

⁶⁶⁰ Ex. 1A at 97 (Application).

430. Approximately 17 trees will be impacted by the Mt-28S site.⁶⁶²

431. The Midtown Substation will have short-term and temporary impacts on fauna.⁶⁶³

432. The evidence on the record confirms the Midtown North Substation best satisfies this routing factor.

F. Effects on Rare and Unique Natural Resources

433. The evidence on the record confirms that there are no rare or unique natural resources located on the Midtown Substation sites.⁶⁶⁴

G. Application of Various Design Considerations

434. The Midtown North substation site and Midtown South substation site do not allow for future substation expansion. However, the Midtown Substation constructed at either site will be able to tie-in an additional 115 kV line and additional transformer and feeder line.⁶⁶⁵

H. Costs of Constructing, Operating, and Maintaining the Facility

435. The construction costs for the Midtown Substation are projected to be \$11,120,000.⁶⁶⁶

436. Xcel Energy performs periodic inspections of substations and associated equipment.⁶⁶⁷ The type and frequency of inspection varies depending on the type of equipment.⁶⁶⁸ Typical inspection intervals are semi-annually or annually. Maintenance and repair are performed on an as-needed basis, and therefore the cost varies from substation to substation.⁶⁶⁹

⁶⁶¹ FEIS at 358, eDocket Document No. 20106-51326-01 (June 7, 2010).

⁶⁶² FEIS at 358, eDocket Document No. 20106-51326-01 (June 7, 2010).

⁶⁶³ Ex. 1A at 97-98 (Application).

⁶⁶⁴ Ex. 1A at 100 (Application).

⁶⁶⁵ Ex. 1A at 41 (Application).

⁶⁶⁶ Ex. 1A at 18 (Application); Ex. 18 at 11 (Gallay Direct).

⁶⁶⁷ Ex. 1A at 20 (Application).

⁶⁶⁸ Ex. 1A at 20 (Application).

⁶⁶⁹ Ex. 1A at 20 (Application).

III. APPLICATION OF ROUTING CRITERIA TO HIAWATHA SUBSTATION

A. Effects on Human Settlement

1. Displacement

437. Hiawatha West will not require the removal and relocation of an existing business. The Hiawatha West site is currently open land that is owned by Mn/DOT. Mn/DOT has indicated that it considers this land to be surplus property and would be willing to sell this land for use as a substation site.⁶⁷⁰ The relocation of a rail spur maybe necessary and has been analyzed by the Company.⁶⁷¹

438. The Hiawatha East site will require the removal of the warehouse complex owned by Crew2 (the “Crew2 Property”).⁶⁷² The Crew2 Property is the company headquarters⁶⁷³ and was custom built for Crew2’s operations.⁶⁷⁴

439. The Hiawatha Zimmer Davis site will require removal of the central distribution hub for Primary Surgical, Inc. d/b/a Zimmer Davis, an orthopedic implant sales and distribution business.⁶⁷⁵

440. The G-1 site would be located on a vacant lot but is not large enough to accommodate a low or high profile substation design.⁶⁷⁶

441. The G-2 site would require the removal of several properties in order to accommodate a low or high profile substation design.⁶⁷⁷

442. The G-3 site would require the removal of existing railroad tracks owned by the Soo Line Railroad and the acquisition and possible displacement of adjacent property.⁶⁷⁸

⁶⁷⁰ Ex. 228 (Mn/DOT DEIS Comment Letter); Seykora 11 Vol. 172-74.

⁶⁷¹ Office of the Attorney General Letter to Judge Heydinger, eDocket Document No. 20106-51177-01 (June 2, 2010).

⁶⁷² Ex. 1A at 27 (Application); Ex. 10 at 18 (Asah Direct).

⁶⁷³ Ex. 99 at 2 (Evangelist Direct).

⁶⁷⁴ Ex. 98 at 3 (Firkus Direct).

⁶⁷⁵ Ex. 130 at 1-2 (Davis Direct).

⁶⁷⁶ Ex. 20 at 5 (McNelly Direct).

⁶⁷⁷ Ex. 20 at 5 (McNelly Direct).

443. The G-4 site would require the displacement of a parking lot owned by the Mn/DOT.⁶⁷⁹

444. The G5 site would require disruption of Met Council's plans to construct a building on the site.⁶⁸⁰ Met Council intends to complete construction on this site within the next 12 months.⁶⁸¹

2. Noise

445. Hiawatha West, Hiawatha East and Hiawatha Zimmer Davis are planned to be located over 200 feet from the nearest residence.⁶⁸²

446. The Hiawatha Substation alternatives will be surrounded by an architecturally-designed, decorative wall which will aid in mitigating noise generated by the operation of the substation.⁶⁸³

447. The evidence on the record confirms the Hiawatha Substation alternatives will be designed such that the MPCA and City of Minneapolis noise requirements are satisfied.⁶⁸⁴

3. Aesthetics

448. If a substation at the Hiawatha West site is constructed as a high-profile design, Xcel Energy proposes to build the substation with a 20-foot wall on all sides.⁶⁸⁵

449. Xcel Energy also studied a low-profile design which would be constructed with a 12-foot wall on all sides.⁶⁸⁶

⁶⁷⁸ Ex. 20 at 5 (McNelly Direct).

⁶⁷⁹ Ex. 20 at 5 (McNelly Direct).

⁶⁸⁰ Public Exhibit 8 (Letter from Met Council).

⁶⁸¹ Public Exhibit 8 (Letter from Met Council).

⁶⁸² Ex. 1A at 78 (Application).

⁶⁸³ Ex. 1A at 75 (Application).

⁶⁸⁴ Ex. 1A at 78 (Application).

⁶⁸⁵ McNelly 6 Vol. 100; Asah 13 Vol. 70-72.

⁶⁸⁶ McNelly 6 Vol. 101. The Hiawatha Substation with a low-profile design would be constructed with 12-foot high architecturally-designed walls.

450. In portions of the Hiawatha West Substation, transmission equipment of an industrial character and approximate height of 40 feet would extend above the wall.⁶⁸⁷

451. The Hiawatha West Substation wall footprint and architectural treatment would be comparable to the existing light industrial and retail buildings in the area. The transmission equipment visible above the wall would have a more industrial character than the adjacent light industrial buildings.

452. The Hiawatha East Substation will be a low-profile substation.⁶⁸⁸

453. The Hiawatha East Substation would be surrounded on three sides (north, west and east) with a 12-foot prefabricated concrete, architecturally-designed wall with a graffiti resistant design appropriate to the area.⁶⁸⁹

454. The Hiawatha East Substation wall footprint would be larger than the existing light industrial buildings in the area.⁶⁹⁰

455. The Hiawatha East Substation architectural treatment would be comparable to the existing light industrial and retail buildings in the area. The transmission equipment visible above the architectural wall would have a more industrial character than the adjacent light industrial buildings.

456. The Hiawatha Substation at the Zimmer Davis site would be a low-profile substation with an average height of approximately 20 feet.⁶⁹¹ The substation would be surrounded on four sides with a 12-foot high architecturally-designed wall with a graffiti resistant design appropriate to the area and a 20-foot wide chain-link gate would allow for maintenance access on one side of the site.⁶⁹²

457. Transmission equipment, approximately 40 feet in height and of an industrial character, would be located in portions of the substation and would extend above the architectural walls.⁶⁹³

⁶⁸⁷ McNelly 5 Vol. at 33-34.

⁶⁸⁸ Ex. 1A at 80 (Application).

⁶⁸⁹ Ex. 1A at 29 (Application).

⁶⁹⁰ FEIS at 340, eDocket Document No. 20106-51326-01 (June 7, 2010).

⁶⁹¹ Ex. 20 at 6 (McNelly Direct).

⁶⁹² Ex. 20 at 6 (McNelly Direct).

⁶⁹³ McNelly 5 Vol. at 33-34.

458. The Hiawatha Zimmer Davis Substation would require relocation of existing building tenant, would require the existing building to be demolished, and may require soil remediation.⁶⁹⁴

459. The Hiawatha East Substation architectural treatment would be comparable to the existing light industrial and retail buildings in the area. The transmission equipment visible above the architectural wall would have a more industrial character than the adjacent light industrial buildings.

4. *Cultural Values*

460. The evidence on the record confirms that the Hiawatha Substation alternatives will not impact cultural values.⁶⁹⁵

5. *Recreation*

461. The alternative sites for the Hiawatha Substation are adjacent to the Midtown Greenway, and within 0.5 miles of Cedar Avenue Field and Stewart Field.⁶⁹⁶

462. There may be temporary impacts to recreation activities during the construction of the Hiawatha Substation.⁶⁹⁷

463. While the Hiawatha West site is currently vacant land owned, for the most part, by Mn/DOT, in recent years, community groups have planted trees and shrubs on this site and have identified this site as potential greenspace along the Midtown Greenway bike/pedestrian path.⁶⁹⁸ The Mn/DOT Community Roadside Landscape Partnership Program provides resources for the plantings. The Mn/DOT program did not provide an interest of the property to the community and can be cancelled with 90-days notice.⁶⁹⁹

464. Initially, Xcel Energy proposed to build a low-profile substation at the Hiawatha West site but in response to requests from community groups during the

⁶⁹⁴ Ex. 20 at 5 (McNelly Direct); Ex. 130 at 5 (Davis Direct); Ex. 131 at 1-2 (Davis Surrebuttal).

⁶⁹⁵ Ex. 1A at 84 (Application).

⁶⁹⁶ Ex. 1A at 84-85 (Application).

⁶⁹⁷ FEIS at 307, eDocket Document No. 20106-51326-01 (June 7, 2010).

⁶⁹⁸ Ex. 36 at 13 (Springer Direct).

⁶⁹⁹ FEIS at 113-114, eDocket Document No. 20106-51326-01 (June 7, 2010).

evidentiary hearing for increased green space around the substation, the Company analyzed a high-profile design.⁷⁰⁰

465. The construction and operation of the Hiawatha Substation will not have long-term or direct impacts to the Midtown Greenway or other recreational facilities.⁷⁰¹

6. Public Services

466. None of the Hiawatha Substation alternatives will disrupt roadway, bus transit, railway, airport or emergency services facilities.⁷⁰²

B. Effects on Public Health and Safety

467. The Hiawatha Substation will be designed and constructed in compliance with local, state, NESC and Company standards.⁷⁰³

468. The Hiawatha Substation will be fenced and access limited to authorized personnel. Proper signage will be posted warning the public of the risk of coming into contact with the energized equipment.⁷⁰⁴

469. Several parties and members of the public expressed concern about being exposed to EMF from the Hiawatha Substation.⁷⁰⁵

470. The highest projected magnetic field level during peak operation at zero feet from the proposed wall or fence of the Hiawatha Substation is 13.09 mG.⁷⁰⁶

471. There is no indication that any significant impact on human health and safety from EMFs will arise from the Hiawatha Substation, regardless of which alternative is chosen.

⁷⁰⁰ McNelly 6 Vol. 100; Asah 13 Vol. 70-72.

⁷⁰¹ Ex. 1A at 85 (Application).

⁷⁰² Ex. 1A at 85 (Application).

⁷⁰³ Ex. 1A at 71 (Application).

⁷⁰⁴ Ex. 1A at 71 (Application).

⁷⁰⁵ Ex. 142 at 210 (Public Comments (written) Received During the DEIS Comment Period); Ex. 143 at 96 (Oral Comments made on the DEIS at the Public Meeting).

⁷⁰⁶ Ex. 155 (Xcel Energy Response to MGC IR No. 32).

C. Effects on Land Based Economies

472. There are no existing forestry, mining or commercial agricultural activities in the Project Area.⁷⁰⁷

473. The evidence on the record confirms the Hiawatha Substation, regardless of alternative, will not impact land based economies.

D. Effects on Archaeological and Historical Resources

474. All of the Hiawatha Substation alternatives will be located in a significantly redeveloped area.⁷⁰⁸

475. The evidence on the record confirms that the Hiawatha Substation alternatives will not impact historic resources since the area near the sites do not contain known historic resources.⁷⁰⁹

476. The Hiawatha West site, Zimmer Davis site, and Hiawatha East site will be located in an area heavily disturbed during the construction of Highway 55 and near multiple railroad tracks.⁷¹⁰

477. The evidence on the record confirms the Hiawatha West, Zimmer Davis, and Hiawatha East Substation sites will not impact archaeological resources.

E. Effects on Natural Environment

478. During the construction of the Hiawatha Substation, there will be limited emissions from vehicles and other construction equipment and fugitive dust.⁷¹¹

479. There are no surface water bodies, wetlands or floodplains located within the Project Area and as a result the Hiawatha Substation will not impact water quality.⁷¹²

⁷⁰⁷ Ex. 1A at 87 (Application).

⁷⁰⁸ Ex. 1A at 91 (Application).

⁷⁰⁹ Ex. 1A at 91 (Application).

⁷¹⁰ Ex. 1A at 93 (Application).

⁷¹¹ Ex. 1A at 94 (Application).

⁷¹² Ex. 1A at 96 (Application).

480. The Hiawatha West Substation will require the removal of approximately five trees.⁷¹³

481. The Hiawatha East Substation will not require the removal of trees.⁷¹⁴

482. The Zimmer Davis Substation will not require the removal of trees.

483. The Hiawatha Substation will have short-term and temporary impacts on fauna.⁷¹⁵

F. Effects on Rare and Unique Natural Resources

484. The evidence on the record confirms that there are no rare or unique natural resources located on the Hiawatha Substation sites.⁷¹⁶

G. Application of Various Design Considerations

485. Xcel Energy also evaluated placing the Hiawatha West Substation underground at the Hiawatha West site.⁷¹⁷ The feasibility of an underground substation at Hiawatha West was not studied, but a cost study revealed that the cost for this alternative is significantly higher than the above-ground alternative. The total estimated cost for an initially equivalent electrical installation underground would be approximately \$86 million.⁷¹⁸ This is compared to the estimated \$14.3 million cost for an above-ground substation at the Hiawatha West site.⁷¹⁹

486. The evidence on the record also demonstrates that an underground design for the Hiawatha West Substation will require transmission structures to convert the line from overhead to underground, additional space for accessing the

⁷¹³ Ex. 1A at 97 (Application).

⁷¹⁴ Ex. 1A at 97 (Application).

⁷¹⁵ Ex. 1A at 97-98 (Application).

⁷¹⁶ Ex. 1A at 100 (Application); Ex. 10 at Schedule 3 (Asah Direct).

⁷¹⁷ Ex. 20 at 12 (McNelly Direct).

⁷¹⁸ Ex. 20 at 13 (McNelly Direct). Per the contract for the study, there is a 40 percent margin of error for this cost estimate due to so many unknown variables, including, but not limited to, water table depth, soil contamination, depth of topsoil versus bedrock and equipment availability. Ex. 20 at 13 (McNelly Direct).

⁷¹⁹ Ex. 18 at 11 (Gallay Direct).

substation and an investigation into water table depths, soil contamination and other factors.⁷²⁰

H. Costs of Constructing, Operating, and Maintaining the Facility

487. The construction costs for the Hiawatha Substation are projected to be \$14,270,000.⁷²¹

488. Compared to the two other feasible Hiawatha Substation sites, the Hiawatha West site has the least land acquisition and relocation costs. The estimated land acquisition cost for the Hiawatha West site is \$900,000 compared to \$5 million for Hiawatha East and Hiawatha Zimmer Davis.⁷²² Likewise, the estimated relocation costs for Hiawatha West are \$625,000 compared to \$1.5 million for Hiawatha East and Hiawatha Zimmer Davis.⁷²³

489. Xcel Energy performs periodic inspections of substations and associated equipment.⁷²⁴ The type and frequency of inspection varies depending on the type of equipment.⁷²⁵ Typical inspection intervals are semi-annually or annually. Maintenance and repair are performed on an as-needed basis, and therefore the cost varies from substation to substation.⁷²⁶

IV. ENVIRONMENTAL JUSTICE

490. Executive Order 12,898 requires federal actions to address potential environmental justice impacts by directing federal agencies to “identify and address disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority or low-income populations.”⁷²⁷

⁷²⁰ Gallay 13 Vol. at 20-22; Ex. 20 at 12-13 (McNelly Direct).

⁷²¹ Ex. 1A at 18 (Application); Ex. 18 at 11 (Gallay Direct).

⁷²² Ex. 165 (Estimated Land Acquisition and Relocation Costs for Hiawatha and Midtown Substation Sites).

⁷²³ Ex. 165 (Estimated Land Acquisition and Relocation Costs for Hiawatha and Midtown Substation Sites). While Hiawatha West does not have businesses that will need to be relocated, these costs relate to the relocation of a railroad spur and fiber optic cables that are currently located on the property. McNelly 5 Vol. 75.

⁷²⁴ Ex. 1A at 20 (Application).

⁷²⁵ Ex. 1A at 20 (Application).

⁷²⁶ Ex. 1A at 20 (Application).

⁷²⁷ Ex. 10 at 22 (Asah Direct); Exec. Order No. 12,898, 59 Fed. Reg. 7,629 (Feb. 11, 1994).

491. There is no Minnesota law that requires an environmental justice analysis; however, certain Minnesota state agencies have adopted their own policies.⁷²⁸

492. The issue of environmental justice was considered in the Final Environmental Impact Statement (“FEIS”).⁷²⁹

493. The FEIS concluded that none of the routing or siting alternatives is expected to produce adverse health effects.⁷³⁰ “Adverse environmental effects” are not significant and can be mitigated.⁷³¹

494. The Project will not burden minority or low-income populations with disproportionately high and adverse human health or environmental effects. In addition the Project Area community will be benefited by the Project.⁷³²

495. The review process for this Project provided adequate opportunities for meaningful participation by the local community.⁷³³

V. NOTICE

496. Minnesota statute and rules require Xcel Energy to provide certain notice to the public and local governments before and during the Application for a Route Permit process.⁷³⁴

497. Xcel Energy provided notice to the public and local governments in satisfaction of Minnesota statutory and rule requirements.

498. Minnesota statute and rules also require OES to provide certain notice to the public throughout the Route Permit process.⁷³⁵

⁷²⁸ Minnesota Pollution Control Agency, *Environmental Justice Principles and Practices*, Apr. 30, 2008, available at <http://www.pca.state.mn.us/index.php/download-document/13474-p-gen5-01.pdf.html>.

⁷²⁹ FEIS at § 5.5, eDocket Document No. 20106-51326-01 (June 7, 2010).

⁷³⁰ FEIS at 268, eDocket Document No. 20106-51326-01 (June 7, 2010).

⁷³¹ FEIS at 269, eDocket Document No. 20106-51326-01 (June 7, 2010).

⁷³² Zima 13 Vol. 197.

⁷³³ Ex. 8 at 6-12 (Mirzayi Direct).

⁷³⁴ Minn. Stat. § 216E.03, subd. 3a; Minn. Stat. § 216E.03, subd. 4; Minn. R. 7850.2100, Subp. 2; Minn. R. 7850.2100, Subp. 4.

⁷³⁵ Minn. Stat. § 216E.03, subd. 6; Minn. R. 7850.2300, Subp. 2; Minn. R. 7850.2500, Subp. 2; Minn. R. 7850.2500, Subp. 7; Minn. R. 7850.2500, Subp. 8; and Minn. R. 7850.2500, Subp. 9.

499. OES provided the notice in satisfaction of Minnesota statutes and rules.

VI. ADEQUACY OF FEIS

500. The Commission is required to determine the adequacy of the FEIS.⁷³⁶ An FEIS is adequate if it: (A) addresses the issues and alternatives raised in scoping to a reasonable extent considering the availability of information and the time limitations for considering the permit application; (B) provides responses to the timely substantive comments received during the DEIS review process; and (C) was prepared in compliance with the procedures in Minnesota Rules 7850.1000 to 7850.5600.⁷³⁷

501. The evidence on the record demonstrates that the FEIS is adequate because it addresses the issues and alternatives raised in the Scoping Decision, provides responses to the substantive comments received during the DEIS review process, and was prepared in compliance with Minnesota Rules 7850.1000 to 7850.5600.⁷³⁸

Based on the foregoing Findings of Fact and the record in this proceeding, the ALJ makes the following:

CONCLUSIONS

502. The Public Utilities Commission and Administrative Law Judge have jurisdiction to consider Xcel Energy's Application for a Route Permit.

503. The Commission determined that the Application was substantially complete and accepted the Application on May 26, 2009.⁷³⁹

504. OES has conducted an appropriate environmental analysis of the Project for purposes of this route permit proceeding and the FEIS satisfies Minn. R. 7850.2500. Specifically, the FEIS addresses the issues and alternatives raised in scoping to a reasonable extent considering the availability of information and the time limitations for considering the permit application, provides responses to the timely

⁷³⁶ Minn. R. 7850.2500, Subp. 10.

⁷³⁷ Minn. R. 7850.2500, Subp. 10.

⁷³⁸ See FEIS, eDocket Document No. 20106-51326-01 (June 7, 2010).

⁷³⁹ *In the Matter of the Route Permit Application for a High Voltage Transmission Line Route Permit for the Hiawatha Transmission Project*, Docket No.: ET2/TL-09-38, Order (May 26, 2009), eDocket Document No. 20095-37814-01.

substantive comments received during the DEIS review process, and was prepared in compliance with the procedures in Minn. R. 7850.1000-7850.5600.

505. Xcel Energy gave notice as required by Minn. Stat. § 216E.03, subd. 3a; Minn. Stat. § 216E.03, subd. 4; Minn. R. 7850.2100, Subp. 2; Minn. R. 7850.2100, Subp. 4.

506. OES gave notice as required by Minn. Stat. § 216E.03, subd. 6; Minn. R. 7850.2300, Subp. 2; Minn. R. 7850.2500, Subp. 2; Minn. R. 7850.2500, Subp. 7; Minn. R. 7850.2500, Subp. 8; and Minn. R. 7850.2500, Subp. 9.

507. Public hearings were conducted in the community near the proposed high voltage transmission line routes. Xcel Energy and OES gave proper notice of the public hearings, and the public was given the opportunity to speak at the hearings and to submit written comments. All procedural requirements for the Route Permit were met.

508. The evidence on the record demonstrates that Route A satisfies the route permit criteria set forth in Minnesota Statute § 216E.03, subd. 7 and Minnesota Rule 7850.4100.

509. Route A does not present a potential for significant adverse environmental effects pursuant to the Minnesota Environmental Rights Act (“MERA”) and Minnesota Environmental Policy Act (“MEPA”).

510. The evidence on the record demonstrates that Route A is the best alternatives on the record for the 115 kV transmission lines between Midtown Substation and Hiawatha Substation.

511. The evidence on the record demonstrates that the Route Permit should be granted for the 115 kV transmission lines along Route A.

512. The Midtown North site is the best alternative on the record for the Midtown Substation.

513. The Hiawatha West site is the best alternative on the record for the Hiawatha Substation.

514. The Route Permit should require Xcel Energy to obtain all required local, state, and federal permits and licenses, to comply with the terms of those permits or licenses, and to comply with all applicable rules and regulations.

515. Any of the forgoing Findings more properly designated Conclusions are hereby adopted as such.

Based upon these Conclusions, the Administrative Law Judge makes the following:

RECOMMENDATIONS

The Commission issue to Xcel Energy the following permit for the Hiawatha Project:

1. A route permit for a high voltage transmission corridor up to 200 feet wide along Xcel Energy's preferred Route A, which is depicted in Exhibits 2A-2D, between the Hiawatha West and the Midtown North substation sites.

THIS REPORT IS NOT AN ORDER AND NO AUTHORITY IS GRANTED HEREIN. THE MINNESOTA PUBLIC UTILITIES COMMISSION WILL ISSUE THE ORDER WHICH MAY ADOPT OR DIFFER FROM THE PRECEDING RECOMMENDATION.

Dated on _____

Beverly Jones Heydinger
Administrative Law Judge