



BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

**COMMENTS AND RECOMMENDATIONS OF THE
MINNESOTA OFFICE OF ENERGY SECURITY
ENERGY FACILITY PERMITTING STAFF**

DOCKET NO. E002/TL-07-1626

Meeting Date: July 31, 2008.....Agenda Item # 9

Company: Xcel Energy

Docket No. E002/TL-07-1626

**In the Matter of the Route Permit Application for the Yankee Substation to
Brookings County Substation 115 kilovolt High Voltage Transmission Line**

Issue(s): Should the Commission find that the environmental assessment and the record adequately address the issues identified in the scoping decision? Should the Commission issue a route permit identifying a specific route and permit conditions for the proposed Yankee Substation to Brookings County Substation 115 kilovolt high voltage transmission line?

Office of Energy Security staff: Scott E. Ek.....651-296-8813

Relevant Documents (in Commission Packet)

Initial Filing – Pipeline Routing Permit Application..... January 18, 2008
Public Utilities Commission Application Acceptance Order February 8, 2008
Environmental Assessment Scoping Decision..... March 27, 2008
Environmental Assessment..... May 30, 2008
Administrative Law Judge Summary of Public Testimony July 8, 2008

The enclosed materials are work papers of the Office of Energy Security, Energy Facility Permitting staff. They are intended for use by the Public Utilities Commission (PUC or Commission) and are based on information already in the record unless otherwise noted.

This document can be made available in alternative formats, i.e., large print or audio tape, by calling (651) 201-2202 (Voice) or 1-800-627-3529 (TTY relay service).

Documents Attached

1. Project Location Map (Figure 2) from Xcel Energy's application (Attachment A)
2. Findings of Fact, Conclusions of Law and Order (Attachment B)
3. Proposed High Voltage Transmission Line Route Permit (Attachment C)
4. Exhibit List (Attachment D)

Note: Relevant documents and additional information can be found on eDockets (07-1626) or the PUC Facilities Permitting website <http://energyfacilities.puc.state.mn.us/Docket.html?Id=19453>.

Statement of the Issues

Should the Commission find that the environmental assessment and the record adequately address the issues identified in the scoping decision? Should the Commission issue a route permit identifying a specific route and permit conditions for the proposed Yankee Substation to Brookings County Substation 115 kilovolt high voltage transmission line?

Introduction and Background

Xcel Energy proposes to build a second 115 kilovolt (kV) high voltage transmission line from its existing Yankee Substation (Lincoln County, Minnesota) to its existing Brookings Substation (Brookings County, South Dakota). On January 18, 2007, Xcel Energy filed a route permit application for the Yankee to Brookings County Transmission Line Project (project).

The project is part of the Xcel Energy, Buffalo Ridge Incremental Generation Outlet Transmission Project (BRIGO). The purpose of the BRIGO projects is to increase existing transmission outlet capacity for wind energy generated by projects located on the Buffalo Ridge, thereby allowing for greater exportation of wind energy to Xcel Energy customers. Xcel Energy indicates that the three proposed BRIGO transmission lines would increase the transmission outlet capacity on the Buffalo Ridge from 825 megawatts (MW) to 1,175 MW and resolve electric reliability issues.

In addition to increased generation capacity, the project would also provide a redundant transmission pathway that will remove the reliability-based limit on transmission capacity in the area. Specifically, the project will support the electrical system in the event the existing Yankee to Brookings #1 115 kV high voltage transmission line suffers an outage. The project will be constructed on separate rights-of-way to provide this necessary redundancy.

The PUC issued a certificate of need to Xcel Energy for the BRIGO projects on September 14, 2007. In its order, the PUC required that Xcel Energy file route permit applications for all the three BRIGO transmission lines no later than January 2008 and take necessary steps to have the lines constructed and in-service no later than spring 2009.¹

Project Area

The proposed project would be located in Lincoln County, Minnesota, and Brookings County, South Dakota, and would provide a second 115 kV connection between the two substations. Approximately six and one-half miles of the line will be located in Minnesota and the remainder in South Dakota. The project as proposed will parallel existing road rights-of-way for 95 percent of the route.

Project Description

The proposed transmission line is an approximately 13 mile (six and one-half miles in Minnesota) single-circuit 115 kV high voltage transmission line which will connect the existing Yankee substation and Brookings County substation. The project also includes necessary modifications to both substations.

Xcel Energy is requesting a 400 foot wide route; 200 feet each side of the road centerline for the six and one-half mile route proposed in Minnesota with the exception of one segment. A wider route width (1,200 foot total) is being requested near the intersection of 180th Street and 110th Avenue. The wider route width is needed to provide greater flexibility during detailed design to develop the best method for avoiding a large wetland and the existing Yankee to Brookings #1 high voltage transmission line.

Xcel Energy proposes to use the same structures for the entire transmission line route in Minnesota. The structures would be steel, single circuit poles with three davit arms. The steel poles are to have a galvanized or weathering steel finish and will average 90 feet in height and approximately 42 inches in diameter for tangent poles and 65 inches in diameter for dead-end poles, with an average span of 500 feet between the structures. The structures will carry a 115 kV single circuit, bundled conductor for the entirety of the proposed project within Minnesota. Ultimately, the transmission lines would be three-phase, 60 hertz, alternating current lines. A typical 115 kV structure is depicted in the environmental assessment as Figure 2.²

Regulatory Review Process

In accordance with Minnesota Rule 7849.5040, subpart 2, “No person may construct a high voltage transmission line without a route permit from the commission. A high voltage transmission line may be constructed only within a route approved by the commission.”

¹ PUC Docket E002/CN-06-154, <https://www.edockets.state.mn.us/EFiling/ShowFile.do?DocNumber=4772937>

² Exhibit 12

In this case Minnesota Rule 7849.5010, subpart 9, define a high voltage transmission line as, "...a conductor of electric energy and associated facilities designed for and capable of operating at a nominal voltage of 100 kilovolts or more either immediately or without significant modification. Associated facilities shall include, but not be limited to, insulators, towers, substations, and terminals."

The route application has been reviewed under the alternative permitting process (Minnesota Rules 7849.5500) of the Power Plant Siting Act (Minnesota Statutes Chapter 216E). The alternative permitting process is shorter than the full permitting procedures and does not require the applicant to propose alternative routes to the preferred route, but does require the applicant to disclose rejected route alternatives and an explanation of why they were rejected.

Under the alternative process, the Office of Energy Security (OES), Energy Facility Permitting (EFP) staff hold a public information and environmental assessment scoping meeting, develop the scope of the environmental assessment, prepare the environmental assessment, and hold a public hearing. The Commission has six months to reach a decision from the date an application is accepted.

Application & Acceptance

On January 18, 2008, Xcel Energy filed a letter with the Commission noticing their intent to submit a route permit application under the alternative permitting process.³ On January 18, 2008, Xcel Energy filed a route permit application for a second 115 kV high voltage transmission line to be constructed between the Yankee Substation to the Brookings County Substation.⁴ The commission accepted the application as complete on February 8, 2008.

Public Information and Environmental Assessment Scoping Meeting

The EFP staff held a public information and environmental assessment scoping meeting on March 3, 2008, at the Midwest Center for Wind Energy in Hendricks, Minnesota, to discuss the project with the public and gather public input into the scope of the environmental assessment to be prepared. Approximately 16 people attended the meeting. The public was given until March 14, 2008, to submit written and/or email comments. The EFP received a total of two comment letters that were reviewed and considered during preparation of the scoping decision.

A comment letter provided by Keith and Julie Needham raised concerns with regard to the segment of the project that is proposed in South Dakota.⁵ The comment letter provided by Theodore Schwing suggested a site specific alignment alternative. The suggested alternative did not deviate from the route proposed in the permit application.⁶

³ Exhibit 1

⁴ Exhibit 2

⁵ Exhibit 8

⁶ Exhibit 8

The scoping decision for the environmental assessment was signed by the Director of the Office of Energy Security on March 27, 2008, and was made available to the public on March 28, 2008.

Public Hearing

Energy Facility Permitting staff made request to the Minnesota Office of Administrative Hearings for an administrative law judge (ALJ) to preside over the public hearing and provide a summary of testimony.

The Honorable Steve Mihalchick, ALJ, presided over the public hearing conducted on June 13, 2008. The public hearing was held at the Midwest Center for Wind Energy in Hendricks, Minnesota. Seven members of the public attended and signed the hearing sign-in sheet.

The ALJ provided an opportunity for members of the public to ask questions or comment on the proposed project verbally and/or to submit question/comments in writing. There were two question from the public. Mr. Sebastian Schwing asked about compensation for affected landowners. Ms. Pamela Rasmussen with Xcel Energy addressed the applicant's land acquisition process.⁷

The second question at the public hearing was asked by Mr. Ted Schwing, who inquired about stakes that were placed on his land followed by soil borings. Ms. Rasmussen addressed the question by explaining Xcel Energy had in fact been in the general area advancing soil borings, but was unaware of the staking. In agreement with the judge, Xcel Energy representatives met with Mr. Schwing after the hearing and proposed field reconnaissance to assist in providing an answer to his question.⁸

The comment period closed on June 27, 2008, at 4:30 P.M. The ALJ filed the public hearing summary of testimony on July 8, 2008.

One written comment was sent to the ALJ on June 17, 2008, by Mr. Ted Schwing. He supported placing the line on the east side of 110th Avenue for one and three-quarter miles north of County Road 13, crossing to the west side of 110th Avenue along their property in Section 13. He also question why the proposed transmission line must avoid the wetland between Sections 25 and 30, as a feeder line was constructed through the wetland in 2007.⁹

Standards for Permit Issuance

The Power Plant Siting Act sets standards and criteria and outlines the factors to be considered in determining whether to issue a permit for a high voltage transmission line (Minnesota Statute 216E and Minnesota Rules 7849.5900). The law also allows the Commission to place conditions on high voltage transmission line permits (Minnesota Statute 216E.03 and Minnesota Rule 7849.5960).

⁷ Exhibit 19 at 12-17

⁸ Exhibit 19 at 18-21

⁹ Exhibit 18

Staff Analysis and Comments

The Office of Energy Security, Energy Facility Permitting staff has attached proposed Findings of Fact, Conclusions of Law and Order (Attachment B), a proposed High Voltage Transmission Line Route Permit (Attachment C), and the Exhibit List of documents that are part of the record in this proceeding (Attachment D). Energy Facility Permitting staff made these documents available to the public on July 18, 2008.

Office of Energy Security, Energy Facility Permitting staff conclude the alternative permitting process has been conducted in accordance with Minnesota Rules 7849.5500 to 7849.5720; that the record supports the route permit application, that the environmental assessment evaluated the required matters, and that the project should go ahead as proposed.

There has been no objection to this proposed transmission line project with the exception of a very specific alternative that does not deviate from the proposed route and would be better addressed during final detailed route design.

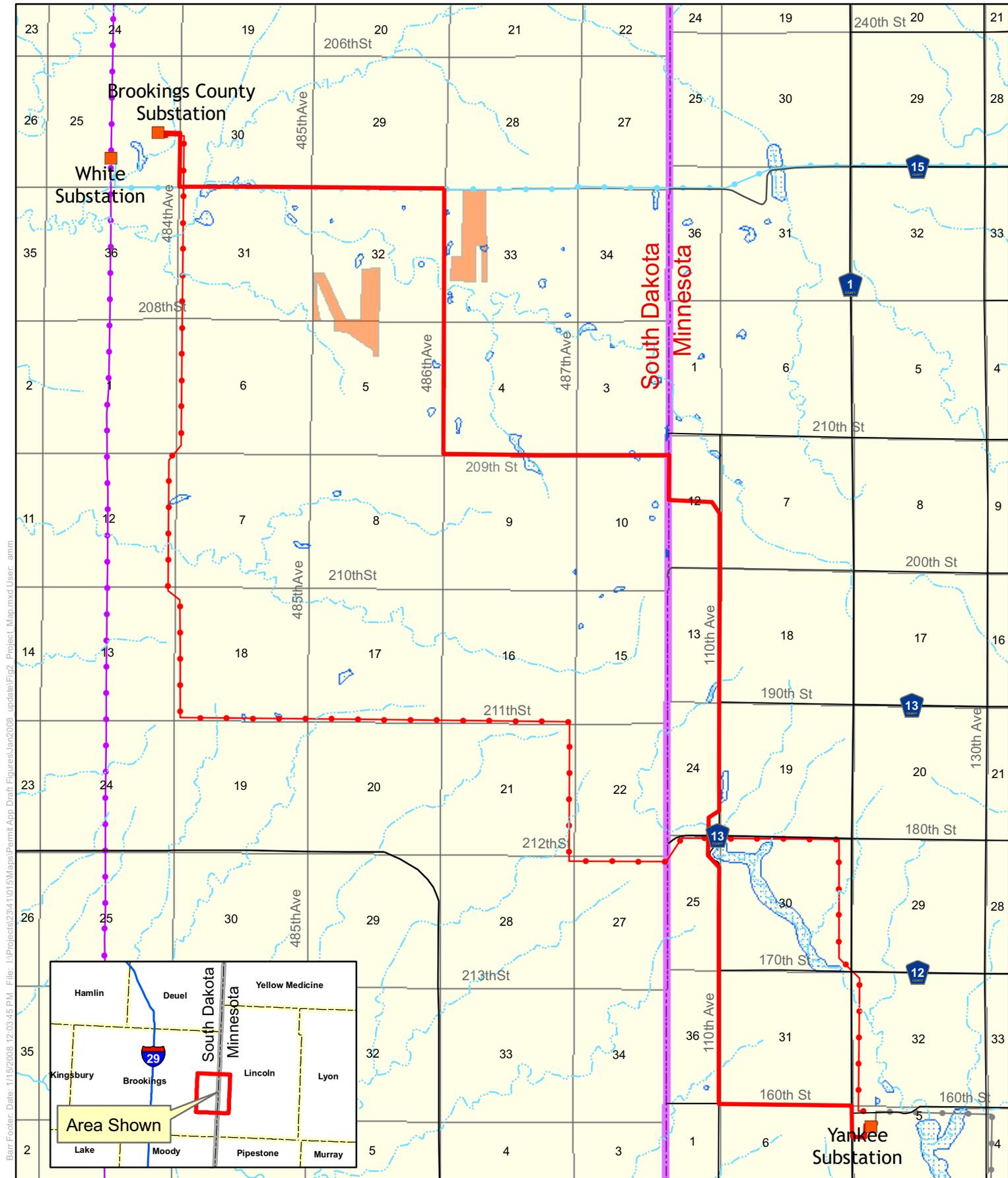
Commission Decision Options

- A. Approve and adopt the Findings of Fact, Conclusions of Law and Order for the Xcel Energy Yankee Substation to Brookings County Substation 115 kV High Voltage Transmission Line Project which:
 - 1. Determines that the environmental assessment and record created at the public hearing address the issues identified in the environmental assessment scoping decision;
 - 2. approves the proposed route identified in the Xcel Energy route permit application; and
 - 3. issues a high voltage transmission line route permit, with appropriate conditions, to Xcel Energy.
- B. Approve and adopt the Findings of Fact, Conclusions of Law and Order as above while imposing any further permit conditions as deemed appropriate.
- C. Amend the Findings of Fact, Conclusions of Law and Order and route permit as deemed appropriate.
- D. Make some other decision deemed more appropriate.

Energy Facility Permitting Staff Recommendation: Staff recommends Option A.

ATTACHMENT A

Project Location Map (Figure 2) from Minnesota Power's Application



Barr Footer Date: 1/15/2008 12:03:45 PM; File: I:\Projects\23411015\Mapes\Permit App Draft\Figures\Jan2008_updates\Fig2_Project_Map.mxd User: amm



- Proposed Route
- Brookings-Yankee 115-kV #1
- Yankee-Buffalo Ridge 115-kV
- East River 115 kV
- Western 345 kV
- MN-SD State Line
- Wetlands
- SDGFP Walk-in Areas

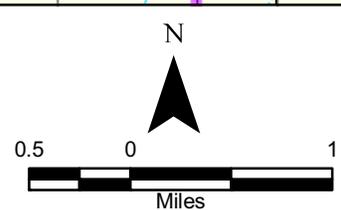


Figure 2. Proposed Route
BRIGO Yankee-Brookings County
Transmission Line

Xcel Energy
Route Permit Application
January 2008

STATE OF MINNESOTA PUBLIC UTILITIES COMMISSION

<p>In the Matter of the Application for a Route Permit for the Yankee Substation to Brookings County Substation 115 kV High Voltage Transmission Line Project</p>	<p>FINDINGS OF FACT, CONCLUSIONS OF LAW AND ORDER ISSUING A ROUTE PERMIT TO XCEL ENERGY FOR THE YANKEE SUBSTATION TO BROOKINGS COUNTY SUBSTATION 115 KILOVOLT HIGH VOLTAGE TRANSMISSION LINE PROJECT PUC DOCKET NO. E002/TL-07-1626</p>
--	--

The above-captioned matter came before the Minnesota Public Utilities Commission (PUC or Commission) on July 31, 2008, acting on an application by Northern States Power Company, d/b/a Xcel Energy, for a route permit to construct a second new 115 kilovolt (kV) high voltage transmission line between the existing Yankee Substation (Lincoln County, Minnesota) to the Brookings Substation (Brookings County, South Dakota), a total distance of 13 miles, six and one-half of which are located in Minnesota.

A public hearing was held on June 13, 2008. The public hearing record closed on June 27, 2008.

STATEMENT OF ISSUE

Should the Commission find that the environmental assessment and the record adequately address the issues identified in the scoping decision?

Should the Commission issue a route permit identifying a specific route and permit conditions for the proposed Yankee Substation to Brookings County Substation 115 kV high voltage transmission line?

Based upon all of the proceedings herein, the commission makes the following:

FINDINGS OF FACT

The Applicant

1. The applicant is Xcel Energy, a Minnesota investor-owned utility with 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. Xcel Energy also provides electricity service to customers in Wisconsin, South Dakota and North Dakota. Xcel Energy will construct, own, and operate the proposed 115 kV transmission line.

The Project

2. Xcel Energy proposes to construct an approximate 13 mile single-circuit 115 kV high voltage transmission line between Lincoln County, Minnesota, and Brookings County, South Dakota, to provide a second 115 kV connection between the Yankee Substation and the Brookings County Substation. Approximately six and one-half miles of the line will be located in Minnesota. The proposed project also includes necessary modifications to both substations (project). The permit application, maps, appendices, and other documents were made available to the public through the PUC Energy Facility website¹ and the eDockets website².
3. The project is part of the Xcel Energy, Buffalo Ridge Incremental Generation Outlet Transmission Projects (BRIGO). The purpose of the BRIGO projects is to increase existing transmission outlet capacity for wind energy generated by projects located on the Buffalo Ridge, thereby allowing for greater exportation of wind energy to Xcel Energy customers. Xcel Energy indicates that the three proposed BRIGO transmission lines would increase the transmission outlet capacity on the Buffalo Ridge from 825 megawatts (MW) to 1,175 MW and resolve electric reliability issues. In addition to increased generation capacity, the project would also provide a redundant transmission pathway that will remove the reliability-based limit on transmission capacity in the area. Specifically, the Yankee to Brookings #2 will support the electrical system in the event the existing Yankee to Brookings #1 115 kV high voltage transmission line suffers an outage. The Yankee to Brookings #2 project will be constructed on separate rights-of-way to provide this necessary redundancy.
4. The proposed route begins at the Yankee Substation located at the southeast corner of 120th Avenue and 160th Street in Lincoln County. The line will exit the substation from the west and extend approximately 600 feet to County Road 1. The line would continue north approximately 1,300 feet along County Road 1 until it reached 160th Street. The line would then proceed west, following 160th Street for approximately one mile to 110th Avenue where it would turn north along 110th Avenue for an estimated 1.7 miles. An approximate 500 foot segment along 110th Avenue just south of 170th Street would be located 35 to 40 feet west of an existing north/south positioned 34.5 kV PPM Energy, Inc. owned feeder line to minimize impacts to a shelterbelt for a residence located on the east side of 110th Avenue. A large wetland located to the south of the 110th Avenue and 180th Street intersection will require that the route be detoured to the west and around the wetland, thereby avoiding construction within the wetland. Following the detour around the wetland the proposed route would continue north along 110th Avenue for approximately 2.2 miles to a half-section line about one-half mile north of 200th Street.

¹ <http://energyfacilities.puc.state.mn.us/Docket.html?Id=19453>

² <https://www.edockets.state.mn.us/EFiling/search.jsp>

The route would then be directed northwest and then west along the half-section line towards the Minnesota/South Dakota border. The route would then proceed north along the state line for one-third mile turning west at 209th Street where it would enter South Dakota.³

5. Xcel Energy will use the same structures for the entire transmission line route in Minnesota. The structures will be steel, single circuit poles with three davit arms. The steel poles are to have a galvanized or weathering steel finish and will be anchored with concrete pier foundations that may vary from 6.5 to 9 feet in diameter and 12 or more feet in depth from ground surface. The poles will average 90 feet in height and approximately 42 inches in diameter for tangent poles and 65 inches in diameter for dead-end poles, with an average span of 500 feet between the structures.
6. The transmission lines will be three-phase, bundled conductor, single circuit configurations will be used for the entirety of the project within Minnesota. The phases for this project will consist of bundled conductors comprised of two aluminum conductor steel supported cables or similar, made of seven steel wires in the center, surrounded by 26 aluminum strands. The separate conductors are 795,000 circular mils or approximately 1.1 inches in diameter. There will also be shield wires strung above the phases to prevent damage from potential lightning strikes. The shield wire may include a fiber optic cable that allows for substation protection equipment to communicate with other terminals on the line.
7. Xcel Energy will make modifications to the existing Yankee Substation. The substation will be modified to accommodate the switching gear, bus work and new transformers necessary to integrate the proposed 115 kV transmission line into the transmission network. The construction and new equipment will be located within the substation's existing fenced area. The new equipment includes:
 - A 115 kV dead end structure with a 115 kV, 2000A motor-operated disconnect;
 - two empty circuit breaker bays;
 - a 115 kV, 3000A breaker between the Main Bus #1 and the second transformer;
 - a single-phase coupling capacitor voltage transformer on the second transformer position; and
 - four 115 kV, 3000A group-operated disconnects.

All controls and protection for the new breaker need to be installed, in addition to all foundations, steel, conductor, trenching, and grounding for the equipment installations. No additional grading will be required at the existing substation.

³ Exhibit 2 at 9 and 20

8. Xcel is requesting a 400 foot wide route; 200 feet each side of the road centerline for the six and one-half mile route proposed in Minnesota with the exception of one segment.

A 1,200 foot route width is requested near the intersection of 180th Street and 110th Avenue. The wider route width is needed to provide greater flexibility during detailed design to develop the best method for avoiding a large wetland and the existing Yankee to Brookings #1 high voltage transmission line.

Within the requested route width(s), Xcel Energy would acquire a much smaller easement for construction and maintenance of the project.

9. The 115 kV transmission line will require a 75-foot right-of-way. When the transmission line is not adjacent to a roadway, Xcel Energy will seek a 75-foot permanent easement from the landowner. When the transmission line is adjacent to a roadway it will share the existing road right-of-way and an easement of lesser width may be required from the landowner depending on road configuration and structure requirements. The transmission line will be parallel to and 38 feet from the section line upon which township roads are centered.⁴ Additional right-of-way may be needed in some select areas to accommodate longer spans or other special design requirements identified during the final survey and design. Xcel Energy would seek a permanent easement from landowners allowing the right to construct, operate, and maintain the transmission line for the full width and length of the right-of-way.

Procedural History

10. Minnesota Statute 216B.243, subdivision 2, states, “No large energy facility shall be sited or constructed in Minnesota without the issuance of a certificate of need by the commission pursuant to sections 216C.05 to 216C.30 and this section and consistent with the criteria for assessment of need”. In this matter, Minnesota Statute 216B.2421, subdivision 2(3) defines a “large energy facility” as, “any high-voltage transmission line with a capacity of 100 kilovolts or more with more than ten miles of its length in Minnesota or that crosses a state line”. The project is one of three 115 kV high voltage transmission lines collectively known as the BRIGO projects (Item 3.). The Minnesota Public Utilities Commission granted Xcel Energy a certificate of need to construct the BRIGO projects by Order dated September 14, 2007.⁵

⁴ Exhibit 2, pages 36 and 37

⁵ In the Matter of Application of the Northern States Power Company d/b/a Xcel Energy for Certificates of Need for Three 115 kV Transmission Lines in Southwestern Minnesota. Docket E002/CN-06-154. Order Granting Certificates of Need (September 14, 2007).

11. On January 18, 2008, Xcel Energy filed a letter with the Commission noticing their intent to submit a route permit application under the alternative permitting process set forth in Minnesota Rules 7849.5500 to 7849.5720.⁶
12. On January 18, 2008, Xcel Energy filed a route permit application for a second 115 kV high voltage transmission line to be constructed between the Yankee Substation in Lincoln County, Minnesota to the Brookings Substation in Brookings County, South Dakota.⁷
13. The Commission accepted the application as complete on February 8, 2008.⁸
14. On January 29 and 30, 2008, Xcel Energy, or their agents, mailed the Notice of Xcel Energy Filing a Route Permit Application with the Minnesota Public Utilities Commission to those persons whose names are on the general list maintained by the PUC for this purpose, local and regional officials, and property owners in compliance with Minnesota Rule 7849.5550.⁹
15. On February 13, 2008, Xcel Energy had the Notice of Xcel Energy Filing a Route Permit Application with the Minnesota Public Utilities Commission published in the *Hendricks Pioneer* and the *Lake Benton Press* pursuant to Minnesota Rule 7849.5550 and 7849.5240, subpart 4.¹⁰

Environmental Assessment

16. On February 15, 2008, Department of Commerce, Office of Energy Security mailed the Notice of Public Information Meeting to persons on the project contact list in compliance with Minnesota Rules 7849.5570 and 7849.5260, subpart 2.¹¹
17. On February 13, 2008, Xcel Energy had the Notice of Public Information Meeting In the Matter of the Application for a Route Permit for the Yankee Substation to Brookings County Substation 115 kV High Voltage Transmission Line published in the *Hendricks Pioneer* and the *Lake Benton Press* in compliance with Minnesota Rules 7849.5550 and 7849.5240, subpart 4.¹²

⁶ Exhibit 1

⁷ Exhibit 2

⁸ Exhibit 7

⁹ Exhibit 7

¹⁰ Exhibit 7

¹¹ Exhibit 6

¹² Exhibit 7

18. In accordance with Minnesota Rules 7849.5570 and 7849.5260 subparts 1 to 4, the Office of Energy Security, Energy Facility Permitting staff held a public information and environmental assessment scoping meeting on March 3, 2008, at the Midwest Center for Wind Energy in Hendricks, Minnesota, to discuss the project with the public and gather public input for the scope of the environmental assessment to be prepared. Approximately 16 people attended the meeting.
19. The public comment period on the environmental assessment scope closed on March 14, 2008. Two comment letters were received during the scoping comment period concerning the project.¹³
 - 19.1. A comment letter provided by Keith and Julie Needham raised concerns with regard to the segment of the project that is proposed in South Dakota.
 - 19.2. A comment letter provided by Theodore Schwing suggested a site specific alignment alternative. The suggested alternative did not deviate from the route proposed in the permit application.
20. The scoping decision for the environmental assessment was signed by the Director of the Office of Energy Security on March 27, 2008, and was filed with the PUC and made available to the public on March 28, 2008, as provided in Minnesota Rule 7849.5700, subpart 3.¹⁴
21. The environmental assessment was prepared in accordance with and contained all the information required under Minnesota Rule 7849.5700, subpart 4.¹⁵
22. On May 29, 2008, Office of Energy Security staff mailed the Notice of Public Hearing and Availability of Environmental Assessment by certified mail to the applicable local, county and regional officials. The notice was mailed to those persons whose names are on the project list in compliance with Minnesota Statute 216E.03, subdivision 6.
23. Pursuant to Minnesota Statute 216E.03, subdivision 6, the Office of Energy Security published the combined Notice of Availability of the Environmental Assessment and Public Hearing in the *Hendricks Pioneer* and the *Lake Benton Press* on June 4, 2008.¹⁶
24. On June 2, 2008, the combined Notice of Availability of the Environmental Assessment and Public Hearing was published in the *EQB Monitor*.¹⁷

¹³ Exhibit 8

¹⁴ Exhibit 10

¹⁵ Exhibit 12

¹⁶ Exhibit 15

¹⁷ Exhibit 13

Public Hearing

25. The Honorable Steve Mihalchick, administrative law judge, presided over the public hearing conducted on June 13, 2008. The public hearing was held at the Midwest Center for Wind Energy in Hendricks, Minnesota. The judge provided an opportunity for members of the public to ask questions or comment on the proposed project verbally and/or to submit question/comments in writing. The comment period closed on June 27, 2008, at 4:30 P.M.
26. Pursuant to Minnesota Rule 7849.5710, subpart 3, Minnesota Office of Energy Security, Energy Facility Permitting project manager Scott Ek and public advisor Adam Sokolski appeared at the public hearing and described the alternative route permitting process, the proposed project, and introduced the environmental assessment and other pertinent documents for the record.¹⁸
27. Ms. Pamela Jo Rasmussen appeared at the public hearing on behalf of the Xcel Energy and testified about the proposed project. Attorneys Valerie Herring and Lisa Agrimonti, Briggs and Morgan, also appeared on behalf of the applicant.
28. Seven members of the public attended the public hearing. All persons who desired to speak were afforded a full opportunity to make a statement on the record.¹⁹
29. Mr. Sebastian Schwing asked about compensation for affected landowners. Ms. Pamela Rasmussen with Xcel Energy addressed the applicant's land acquisition process.²⁰
30. Mr. Ted Schwing inquired about stakes that were placed on his land followed by soil borings. Ms. Rasmussen addressed the question by explaining Xcel Energy had in fact been in the general area advancing soil borings, but was unaware of the staking. In agreement with the judge, Xcel Energy representatives met with Mr. Schwing after the hearing and proposed field reconnaissance to assist in providing an answer to his question.²¹
31. The hearing transcript was filed with the PUC on July 18, 2008.²²
32. The administrative law judge filed the public hearing summary of testimony with the PUC on July 8, 2008.²³

¹⁸ Exhibit List

¹⁹ Exhibit 17

²⁰ Exhibit 19 at 18-21

²¹ Exhibit 19 at 21-25

²² Exhibit 17

²³ Exhibit 20

Potential Impacts and Mitigation

33. The proposed route would pass within 300 feet of three residences; the closest of which is approximately 173 feet, 1,500 feet of three residences, and near one abandoned residence. This proposed route was selected, as it passed by a fewer number of homes when compared with alternate routes that were ultimately rejected. The approximate total permanent impact to the existing land use/environment due to the proposed project is well below one acre.²⁴
34. The proposed project will be designed to meet or exceed all requirements of local, state and National Electric Safety Code standards. The established industry and Xcel Energy safety procedures will be followed both during and after construction and during future operation and maintenance. Protective devices in the form of breakers and relays located at the substation connections will be installed to safeguard the public should an accident occur and a structure or conductor falls to the ground. In addition, the substation facilities would be fenced and access limited to authorized personnel only.
35. The issue of electric and magnetic fields was discussed in the environmental assessment.²⁵ A number of national and international health agencies (The Minnesota Department of Health, The World Health Organization, The National Institute of Environmental Health Sciences) have generally concluded in their research that there is insufficient evidence to prove a connection between electric and magnetic fields exposure and health effects. Research has not been able to establish a cause and effect relationship between exposure to magnetic fields and human disease, nor a plausible biological mechanism by which exposure to electric and magnetic fields could cause disease.
36. Stray voltage has been raised as a concern on some dairy farms because of the potential for dairy cows to come into contact with two points and provide a conducting path for current to flow, thereby impacting operations and milk production. In instances when transmission lines have been shown to contribute to stray voltage, the electric distribution system serving the farm/structure was directly under and/or parallel to the transmission line. Appropriate measures will be taken during transmission line detailed design and construction to prevent the potential for any stray voltage problems for this project.
37. Short-term exceedance of daytime noise standards due to construction would be intermittent and temporary in nature.

²⁴ Exhibit 2 at Figures A-2 to A-5

²⁵ Exhibit 12 at 8-12

Potential noise impacts will be mitigated by using standard sound reduction equipment and by implementing responsible construction procedures. Construction activities will be limited to daytime working hours, therefore the nighttime noise level standards will not be exceeded.

38. The noise produced by a 115 kV high voltage transmission line is less than normal outdoor background levels (~30 dB(A) or less) and is therefore not usually audible. Long-term noise impacts from the project are not anticipated and mitigation measures are not necessary.
39. The proposed transmission line and structures will add to the changing landscape of the area and will be visible to residents living near the route and to drivers using public roads adjacent to the route. Input from landowners or land management agencies pertaining to visual impacts will be considered prior to final location of structures, rights-of-way, and other areas with the potential for visual disturbance. Care will be used to preserve the natural landscape and prevent any unnecessary destruction of the natural surroundings in the vicinity of the project to the extent practicable.
40. The project will require some tree clearing. The tree clearing will be limited to only those trees that are located in the right-of-way for the transmission lines.
41. In some instances where there are existing above ground distribution lines (i.e. the segment of 34.5 kV feeder lines along 110th Avenue just south of 170th Street) the applicant may “underbuild” the distribution lines; removing the shorter distribution poles and stringing the distribution line along the new taller transmission poles to carry both transmission and distribution. A second option is to remove the distribution poles and bury the distribution lines beneath the ground, if feasible.
42. The project area is zoned primarily for agriculture and is mapped as transitional agriculture and grassland. Impacts to agricultural land attributed to the proposed project would be temporary in nature. Attempts will be made to schedule construction before crop planting or after harvest. Temporary access paths may be constructed using the shortest route possible. Construction mats may be used in conjunction with access paths to further minimize potential impact.
43. The closest recreation areas are at least five miles from the proposed transmission line route (Lake Shaokatan, Shaokatan Waterfowl Production Area, Weeks and Schindel Wildlife Management Areas). The proposed transmission line will not impact any public recreational area and it is not anticipated that the transmission line will be visible from recreational resources greater than five miles from the proposed route.

44. During the construction phase of the project local motorists may be temporarily inconvenienced by the increase in construction vehicles on the roadways and minimal delays in traffic. Construction will not impact the community's emergency public infrastructure that is provided by Lincoln County.
45. Lincoln County has requested that structures not be placed on the north and west sides of the roads to minimize potential problems with snow drifts. Xcel Energy will accommodate this request where the pole placement does not conflict with other land use constraints such as residences and wetlands.
46. In the event that a resource is encountered, the State Historical Preservation Office and invited consulting parties will be contacted and consulted; the nature of the resource will be identified; and a determination shall be made on the eligibility for listing in the National Registry of Historic Places. It is anticipated that a historic or cultural resource, if encountered, would be avoided by design modification (movement of planned structures) or data recovery by selective excavation, depending on the extend of the resource.
47. It is not anticipated that bedrock will be encountered during the construction of the project. Temporary disturbance and/or compaction of soils will likely result in the areas where transmission line structures will be placed. In addition, soils exposed during construction may be vulnerable to erosion until stabilized. Soil erosion control measures will be followed to minimize loss of topsoil. Best management practices will be implemented during construction in an effort to reduce dust, erosion, and minimize compaction using commonly accepted methods such as prompt seeding, erecting silt fences, and utilizing erosion control blankets. All areas disturbed during construction of the facilities will be returned to their pre-construction condition. No permanent impacts to the soil or geology within the proposed route are anticipated.
48. There is potential for displacement of wildlife during construction of the project and the loss of small amounts of habitat from the transmission line route. Displacement of wildlife during construction will be minor and temporary in nature. No long-term effects related to displacement are anticipated, therefore no mitigation measures are required.
49. The principal impact posed by the transmission line project to wildlife is avian collision once the transmission lines have been constructed and are operational. Although the potential for avian mortality is low, the applicant will take a comprehensive look at all of the power equipment, poles/structures, and transmission lines that may potentially contribute to avain collision or mortality. The applicant will evaluate mitigative measures in areas of the project where the chance of avian collision or electrocution is higher.

Areas will be identified by Xcel Energy in cooperation with the Minnesota Department of Natural Resources and the U.S. Fish and Wildlife Service where swan flight diverters could be incorporated into the transmission line design to prevent swan and other large avian collisions attributed to visibility issues.

50. There are no listed native plant communities or areas of high biodiversity located within or near the project area; therefore, no impacts are anticipated.
51. Impacts to air quality will be minimal, temporary, and associated only with fugitive dust created during right-of-way clearing and transmission line construction.
52. Ground disturbance (excavation, grading, fugitive dust) during the construction phase of the project has the potential to cause increased sedimentation to existing surface waters. A National Pollution Discharge Elimination construction stormwater permit is not required; however, Xcel Energy will follow standard erosion control measures outlined in Minnesota Pollution Control Agency guidance and best management practices regarding sediment control practice during construction. These practices include, but are not limited to, protecting storm drain inlets, use of silt fences, protecting exposed soil, immediately stabilizing restored soil, controlling temporary soil stockpiles, and controlling vehicle tracking. By maintaining sound water and soil conservation practices and implementation of best management practices, the construction and long-term operation of the proposed project is not expected to impact surface water quality.
53. There are no wetlands identified in the Nation Wetlands Inventory located in-line with or near the proposed route. The project will be designed to span or avoid all wetlands with no structures located in a designated wetland; therefore, a federal section 404 permit will not be required. In addition, the project footprint is not located within a designated 100 year floodplain.
54. The unnamed wetland tributary to Medary Creek, located south of 180th Street and 110th Avenue and directly in-line with the proposed project route is designated as critical habitat for the Topeka shiner, a federally endangered and state specie of special concern. Mitigation measures for potential impacts to the Topeka shiner and its habitat will include construction techniques and sediment control measures such as:
 - 54.1 Following recommendations outlined in the USFWS, *Recommendations for Projects Affecting Waters Inhabited by Topeka Shiners (Notropis topeka) in Minnesota*; May 11, 2007;
 - 54.2 utilizing silt fences, practicing prompt re-seeding, and using erosion control blankets; and

54.3 placing structures to either span critical watercourses or avoidance by routing around the area, as in the case of the large wetland tributary to Medary Creek.

55. Xcel Energy estimates the project will cost approximately \$18.7 million. Annual operation and maintenance costs for the project are estimated in the range of \$300 to \$500 per mile of transmission right-of-way.²⁶

56. A comment letter provided by Mr. Theodore Schwing suggested a site specific alignment alternative. The alternative specifically suggests the transmission line be routed along the east side of 110th Avenue through Section 19 to approximately the three quarter point (residential structure) of Section 18, the line would then cross to the west side of 100th Avenue at this point and continue north as proposed. This would avoid the residence located on the east side of 110th Avenue in the northwest quadrant of Section 18. The applicant will consult with Mr. Schwing and consider the feasibility of the suggested alternative prior to final location of structures and rights-of-way. The additional suggestions in the comment letter are items that may be discussed in separate agreements between Xcel Energy and the landowner.

Applicable Statutory Conditions

57. The project qualifies as a large energy facility under Minnesota Statute 216B.2421, and requires a certificate of need from the Commission. The certificate of need for this project was issued on September 14, 2007, and is found under docket number E002/CN-06-154. Minnesota Rule 7849.5720, Subpart 3, requires a certificate of need to be issued prior to making a final decision on a route permit application.

58. The project is eligible for the alternative permitting process of the Power Plant Siting Act, Minnesota Statute 216E.04 and Minnesota Rule 7849.5500.

59. Minnesota Statute 216E.03, subdivision 7, and Minnesota Rules 7849.5910 provide considerations in designating sites and routes and determining whether to issue a permit for a large electric power generating plant or a high voltage transmission line.

²⁶ Exhibit 2 at 18

Based on the Findings of Fact the Commission makes the following:

CONCLUSIONS OF LAW

1. Any of the foregoing Findings more properly designated as Conclusions are hereby adopted as such.
2. The Public Utilities Commission has jurisdiction over the subject matter of this proceeding pursuant to Minnesota Statute 216E.03, subdivision 2.
3. The project qualifies for review under the alternative permitting process of Minnesota Statute 216E.04 and Minnesota Rule 7849.5510.
4. The applicant, the Office of Energy Security, and the Public Utilities Commission have complied with all procedural requirements required by law.
5. The Office of Energy Security has completed an environmental assessment of this project as required by Minnesota Statute 216E.04, subdivision 5, Minnesota Rule 7849.5700.
6. The Public Utilities Commission has considered all the pertinent factors relative to its determination of whether a route permit should be approved as required by Minnesota Statute 216E.03, subdivision 7, and Minnesota Rule 7849.5910 and considered all the pertinent factors in determining whether the route permit should be approved.
7. The conditions included in the route permit are reasonable and appropriate.

Based on the Findings of Fact, Conclusions of Law contained herein and the entire record of this proceeding, the Commission hereby makes the following:

ORDER

A Route Permit is hereby issued to Xcel Energy to construct the approximately six and one-half miles of 115 kV transmission line located within the State of Minnesota and between the Yankee Substation in Lincoln County, Minnesota, and the Brookings Substation in Brookings County, South Dakota, and associated facilities at the substations to accommodate the new transmission line. The approved route shall follow the road centerlines and half-sections as described in Xcel Energy's route permit application for the entire length.

The route permit shall be issued in the form attached hereto, with a map showing the approved route.

Approved and adopted this _____ day of August, 2008.
BY ORDER OF THE COMMISSION

Burl W. Haar,
Executive Secretary

Based on the Findings of Fact, Conclusions of Law contained herein and the entire record of this proceeding, the Commission hereby makes the following:

ORDER

A Route Permit is hereby issued to Xcel Energy to construct the approximately six and one-half miles of 115 kV transmission line located within the State of Minnesota and between the Yankee Substation in Lincoln County, Minnesota, and the Brookings Substation in Brookings County, South Dakota, and associated facilities at the substations to accommodate the new transmission line. The approved route shall follow the road centerlines and half-sections as described in Xcel Energy's route permit application for the entire length.

The route permit shall be issued in the form attached hereto, with a map showing the approved route.

Approved and adopted this _____ day of August, 2008.
BY ORDER OF THE COMMISSION

Burl W. Haar,
Executive Secretary

ATTACHMENT C

Proposed High Voltage Transmission Line Route Permit

**ROUTE PERMIT FOR CONSTRUCTION OF A HIGH
VOLTAGE TRANSMISSION LINE
IN
LINCOLN COUNTY, MINNESOTA**

**ISSUED TO
NORTHERN STATES POWER COMPANY d/b/a XCEL
ENERGY**

PUC DOCKET No. E002/TL-07-1626

In accordance with the requirements of Minnesota Statutes Chapter 216E and Minnesota Rules Chapter 7849, this route permit is hereby issued to:

Northern States Power d/b/a Xcel Energy

Northern States Power Company, d/b/a Xcel Energy (hereinafter referred to as Xcel Energy), is authorized by this route permit to construct the six and one-half mile segment located within the State of Minnesota, of a new 115 kilovolt (kV) high voltage transmission line between the Yankee Substation in Lincoln County, Minnesota to the Brookings Substation in Brookings County, South Dakota.

The transmission line shall be built within the route identified in this permit and as portrayed on the attached official route map, and in compliance with the conditions specified in this permit.

Approved and adopted this _____ day of August, 2008
BY ORDER OF THE COMMISSION

Burl W. Haar,
Executive Secretary

I. ROUTE PERMIT

The Minnesota Public Utilities Commission (PUC or Commission) hereby issues this route permit to Xcel Energy (Xcel Energy or permittee) pursuant to Minnesota Statutes Chapter 216E and Minnesota Rules Chapter 7849. This permit authorizes Xcel Energy to construct approximately six and one-half miles of 115 kV high voltage transmission line and associated facilities at the substations to accommodate the new transmission line.

II. PROJECT DESCRIPTION

Xcel Energy is authorized to build an approximately six and one-half mile segment of 115 kV transmission line located in Minnesota that will create a second connection between the Yankee Substation in Lincoln County, Minnesota and the Brookings Substation located in Brookings County, South Dakota including necessary modifications to the existing Yankee Substation.

Xcel Energy will use the same structures for the entire transmission line route. The structures will be steel, single circuit poles with three davit arms. The steel poles are to have a galvanized or weathering steel finish and will be anchored with concrete pier foundations that may vary from 6.5 to 9 feet in diameter and 12 or more feet in depth from ground surface. The poles will average 90 feet in height and approximately 42 inches in diameter for tangent poles and 65 inches in diameter for dead-end poles, with an average span of 500 feet between the structures.

The transmission line authorized by this permit will be three-phase, bundled conductor, single circuit configurations for the entirety of the project. The phases for this project will consist of bundled conductors comprised of two aluminum conductor steel supported cables or similar, made of seven steel wires in the center, surrounded by 26 aluminum strands. The separate conductors will be 795,000 circular mils or approximately 1.1 inches in diameter. There will also be shield wires strung above the phases to prevent damage from potential lightning strikes. The shield wire may include a fiber optic cable that allows for substation protection equipment to communicate with other terminals on the line.

The Yankee Substation will be modified to accommodate the switching gear, bus work and new transformers necessary to integrate the proposed 115 kV transmission line into the transmission network. The construction and new equipment will be located within the substation's existing fenced area. The new equipment includes a 115 kV dead end structure with a 115 kV, 2000A motor-operated disconnect; two empty circuit breaker bays; a 115 kV, 3000A breaker between the Main Bus #1 and the second transformer; a single-phase coupling capacitor voltage transformer on the second transformer position; and four 115 kV, 3000A group-operated disconnects.

All controls and protection for the new breaker need to be installed, in addition to all foundations, steel, conductor, trenching, and grounding for the equipment installations. No additional grading will be required at the existing substation.

III. DESIGNATED ROUTE / SITE

The route designated by the Commission in this permit comprises the six and one-half mile segment located in Minnesota and as described in detail below, as analyzed in the environmental assessment, and shown on the official route map attached to this permit.

The route width approved by this permit is 400 foot wide; 200 feet each side of the road centerline for the six and one-half mile route with the exception of one segment. A 1,200 foot route width is approved near the intersection of 180th Street and 110th Avenue to provide greater flexibility during detailed design to develop the best method for avoiding a large wetland and the existing Yankee to Brookings #1 high voltage transmission line. The approved right-of-way width is up to 75 feet.

The route that begins at the Yankee Substation located at the southeast corner of 120th Avenue and 160th Street in Lincoln County. The line will exit the substation from the west and extend approximately 600 feet to County Road 1. The line will continue north approximately 1,300 feet along County Road 1 until it reached 160th Street. The line then proceed west, following 160th Street for approximately one mile to 110th Avenue where it turns north along 110th Avenue for an estimated 1.7 miles. An approximate 500 foot segment along 110th Avenue just south of 170th Street may be located 35 to 40 feet west of an existing north/south positioned 34.5 kV PPM Energy, Inc. owned feeder line to minimize impacts to a shelterbelt for a residence located on the east side of 110th Avenue. A large wetland located to the south of the 110th Avenue and 180th Street intersection will require that the route be detoured to the west and around the wetland, thereby avoiding construction within the wetland. Following the detour around the wetland the proposed route will continue north along 110th Avenue for approximately 2.2 miles to a half-section line about one-half mile north of 200th Street. The route will then be directed northwest and then west along the half-section line towards the Minnesota/South Dakota border. The route will then proceed north along the state line for one-third mile turning west at 209th Street where it will enter South Dakota.

The proposed transmission lines and substation will be designed to meet or surpass all relevant local and state codes, and North American Electric Reliability Council and Xcel Energy standards. Appropriate standards will be met for construction and installation, and all applicable safety procedures will be followed during and after installation.

IV. PERMIT CONDITIONS

The permittee shall comply with the following conditions during construction of the transmission line and associated facilities and the life of this permit.

A. Plan and Profile. At least 14 calendar days before right-of-way preparation for construction begins, the permittee shall provide the commission with a plan and profile of the right-of-way and the specifications and drawings for right-of-way preparation, construction, cleanup, and restoration for the transmission line. The permittee may not commence construction until the 14 days has expired or until the commission has advised the permittee in writing that it has completed its review of the documents and determined that the planned construction is consistent with this permit. If the permittee intends to make any significant changes in its plan and profile or the specifications and drawings after submission to the commission, the permittee shall notify the commission at least five days before implementing the changes. No changes shall be made that would be in violation of any of the terms of this permit.

B. Construction Practices.

1. Application. The Permittee shall follow those specific construction practices and material specifications described in the Xcel Energy Application to the Public Utilities Commission for a Route Permit, dated January 18, 2008, and as described in the environmental assessment unless this permit establishes a different requirement, in which case this permit shall prevail.

2. Field Representative. At least 10 days prior to commencing construction, the permittee shall advise the commission in writing of the person or persons designated to be the field representative for the permittee with the responsibility to oversee compliance with the conditions of this permit during construction. The field representative's address, phone number, and emergency phone number shall be provided to the commission and shall be made available to affected landowners, residents, public officials and other interested persons. The permittee may change its field representative at any time upon written notice to the commission.

3. Local Governments. The Xcel Energy shall cooperate with county and city road authorities to develop appropriate signage and traffic management during construction.

4. Cleanup. All waste and scrap that is the product of construction shall be removed from the area and properly disposed of upon completion of each task. Personal litter, including bottles, cans, and paper from construction activities shall be removed on a daily basis.

- 5. Vegetation Removal in the Right-of-Way.** The permittee shall minimize the number of trees to be removed in selecting the right-of-way. As part of construction, low growing brush or tree species are allowable at the outer limits of the easement area. Taller tree species that endanger the safe and reliable operation of the transmission facility need to be removed. To the extent practical, low growing vegetation that will not pose a threat to the transmission facility or impede construction should remain in the easement area.
 - 6. Erosion Control.** The permittee shall implement reasonable measures to minimize runoff during construction and shall promptly plant or seed, erect silt fences, and/or use erosion control blankets in non-agricultural areas that were disturbed where structures are installed. All areas disturbed during construction of the facilities will be returned to their pre-construction condition.
 - 7. Temporary Work Space.** The permittee shall limit temporary easements to special construction access needs and additional staging or lay-down areas required outside of the authorized right-of-way.
 - 8. Restoration.** The permittee shall restore the right-of-way, temporary work spaces, access roads, abandoned right-of-way, and other private lands affected by construction of the transmission line. Restoration within the right-of-way must be compatible with the safe operation, maintenance, and inspection of the transmission line. Within 60 days after completion of all restoration activities, the permittee shall advise the commission in writing of the completion of such activities.
 - 9. Notice of Permit.** The permittee shall inform all employees, contractors, and other persons involved in the transmission line construction of the terms and conditions of this permit.
- C. Periodic Status Reports.** Upon request, the permittee shall report to the commission on progress regarding finalization of the route, design of structures, and construction of the transmission line. The permittee need not report more frequently than quarterly.
- D. Complaint Procedure.** Prior to the start of construction, the permittee shall submit to the commission, the procedures that will be used to receive and respond to complaints. The procedures shall be in accordance with the requirements set forth in the complaint procedures attached to this permit.
- E. Notification to Landowners.** The permittee shall provide all affected landowners with a copy of this permit at the time of the first contact with the landowners after issuance of this permit.

Xcel Energy shall contact landowners prior to entering the property or conducting maintenance along the route and avoid maintenance practices, particularly the use of fertilizer or pesticides, inconsistent with the landowner's or tenant's use of the land.

Xcel Energy shall work with landowners to locate the high voltage transmission lines to minimize the loss of agricultural land, forest, and wetlands, and to avoid homes and farmsteads.

F. Completion of Construction.

- 1. Notification to Commission.** At least three days before the line is to be placed into service, the permittee shall notify the commission of the date on which the line will be placed into service and the date on which construction was complete.
- 2. As-Builts.** Upon request of the commission, the permittee shall submit copies of all the final as-built plans and specifications developed during the project.
- 3. GPS Data.** Within 60 days after completion of construction, the permittee shall submit to the commission, in the format requested by the commission, geo-spatial information (GIS compatible maps, GPS coordinates, etc.) for all above ground structures associated with the transmission lines, each switch, and each substation connected.

G. Electrical Performance Standards.

- 1. Grounding.** The permittee shall design, construct, and operate the transmission line in a manner that the maximum induced steady-state short-circuit current shall be limited to five milliamperes, root mean square (rms) alternating current between the ground and any non-stationary object within the right-of-way, including but not limited to large motor vehicles and agricultural equipment. All fixed metallic objects on or off the right-of-way, except electric fences that parallel or cross the right-of-way, shall be grounded to the extent necessary to limit the induced short circuit current between ground and the object so as not to exceed one milliamperes rms under steady state conditions of the transmission line and to comply with the ground fault conditions specified in the National Electric Safety Code.
- 2. Electric Field.** The transmission line shall be designed, constructed, and operated in such a manner that the electric field measured one meter above ground level immediately below the transmission line shall not exceed 8.0 kV/m rms.

3. Interference with Communication Devices. If interference with radio or television, satellite or other communication devices is caused by the presence or operation of the transmission line, the permittee shall take whatever action is prudently feasible to restore or provide reception equivalent to reception levels in the immediate area just prior to the construction of the line.

H. Special Conditions

1. Archaeological and Historic Resources. Xcel Energy shall make every effort to avoid impacts to identified archaeological and historic resources when installing the high voltage transmission line on the approved route. In the event that an impact would occur, the applicants will consult with State Historic Preservation Office and invited consulting parties. Where feasible, avoidance of the resource is required. Where not feasible, mitigation for project-related impacts on National Register of Historic Properties-eligible archaeological and historic resources must include an effort to minimize project impacts on the resource.

2. Wetlands/Water Resources. Wetland impact avoidance measures that shall be implemented during design and construction of the transmission line will include spacing and placing the power poles at variable distances to span and avoid wetlands. Unavoidable wetland impacts as a result of the placement of poles shall be limited to the immediate area around the poles. To minimize impacts, construction in wetland areas shall occur in the winter. If necessary, wooden or composite mats will be used to protect wetland vegetation. All requirements of the U.S. Army Corps of Engineers (wetlands under federal jurisdiction), Minnesota Department of Natural Resources (Public Waters/Wetlands), and County (wetlands under the jurisdiction of the Minnesota Wetland Conservation Act) shall be met.

Impacts to floodplains, in particular the placement of power pole structures, shall be avoided to the maximum extent possible by placing these structures above the floodplain contours outside of the designated floodplain, and by spanning the floodplain with the transmission line.

If construction activities will result in the disturbance of one acre or more of soils, a National Pollutant Discharge Elimination System stormwater permit from the Minnesota Pollution Control Agency will be required. Standard erosion control measures outlined in Minnesota Pollution Control Agency guidance and best management practices regarding sediment control practice during construction. These practices include, but are not limited to, protecting storm drain inlets, use of silt fences, protecting exposed soil, immediately stabilizing restored soil, controlling temporary soil stockpiles, and controlling vehicle tracking.

3. Avian Collision. The applicant will evaluate mitigative measures in areas of the project where the chance of avian collision or electrocution is higher. Areas will be identified by Xcel Energy in cooperation with the Minnesota Department of Natural Resources and the U.S. Fish and Wildlife Service where swan flight diverters could be incorporated into the transmission line design to prevent swan and other large avian collisions attributed to visibility issues.

4. Rare and Unique Resources. The unnamed wetland tributary to Medary Creek, located south of 180th Street and 110th Avenue and directly in-line with the proposed project route is designated as critical habitat for the Topeka shiner, a federally endangered and state specie of special concern. Mitigation measures for potential impacts to the Topeka shiner and its habitat will include construction techniques and sediment control measures such as following recommendations outlined in the USFWS, *Recommendations for Projects Affecting Waters Inhabited by Topeka Shiners (Notropis topeka) in Minnesota*; May 11, 2007; utilizing silt fences, practicing prompt re-seeding, and using erosion control blankets; and placing structures to either span critical watercourses or avoidance by routing around the area, as in the case of the large wetland tributary to Medary Creek.

5. Accommodation of Existing and Planned Infrastructure. Xcel Energy is required to work with the landowners, townships, cities, and counties along the route to accommodate their concerns regarding snow drifts, drain tiles, pole depth and placement in relationship to existing roads and road expansion plans. The permittee shall work with the owners of existing distribution lines identified along the route to either “underbuild” on the new structures or bury the distribution lines, if deemed feasible.

6. Alignment Alternative. Mr. Theodore Schwing suggested that the transmission line be routed along the east side of 110th Avenue through Section 19 to approximately the three quarter point (residential structure) of Section 18, the line would then cross to the west side of 100th Avenue at this point and continue north as proposed. This would avoid the residence located on the east side of 110th Avenue in the northwest quadrant of Section 18. The permittee will consult with Mr. Schwing and consider the feasibility of the suggested alternative prior to final location of structures and rights-of-way.

I. Other Requirements.

1. Applicable Codes. The permittee shall comply with applicable North American Electric Reliability Council construction standards and requirements of the National Electric Safety Code including clearances to ground, clearance to crossing utilities, clearance to buildings, right-of-way widths, erecting power poles, and stringing of transmission line conductors.

2. Other Permits. The permittee shall comply with all applicable state rules and statutes. The permittee shall obtain all required local, state and federal permits for the project and comply with the conditions of these permits. A list of the required permits is included in the permit application and the environmental assessment. The permittee shall submit a copy of such permits to the commission upon request.

3. Pre-emption. Pursuant to Minnesota Statutes 216E.10, subdivisions 1 and 2, this route permit shall be the sole route approval required to be obtained by the permittee and this permit shall supersede and preempt all zoning, building, or land use rules, regulations, or ordinances promulgated by regional, county, local and special purpose government.

J. Delay in Construction. If the permittee has not commenced construction or improvement of the route within four years after the date of issuance of this permit, the commission shall consider suspension of the permit in accordance with Minnesota Rule 7849.5970.

V. PERMIT AMENDMENT

The permit conditions in Section IV may be amended at any time by the commission. Any person may request an amendment of the conditions of this permit by submitting a request to the commission in writing describing the amendment sought and the reasons for the amendment. The commission will mail notice of receipt of the request to the permittee. The commission may amend the conditions after affording the permittee and interested persons such process as is required.

VI. TRANSFER OF PERMIT

The permittee may request at any time that the commission transfer this permit to another person or entity. The permittee shall provide the name and description of the person or entity to whom the permit is requested to be transferred, the reasons for the transfer, a description of the facilities affected, and the proposed effective date of the transfer. The person to whom the permit is to be transferred shall provide the commission with such information as the commission shall require to determine whether the new permittee can comply with the conditions of the permit. The commission may authorize transfer of the permit after affording the permittee, the new permittee, and interested persons such process as is required.

VII. REVOCATION OR SUSPENSION OF THE PERMIT

The commission may initiate action to revoke or suspend this permit at any time. The commission shall act in accordance with the requirements of Minnesota Rules part 7849.6010 to revoke or suspend the permit.

**PUBLIC UTILITIES COMMISSION
COMPLAINT REPORT PROCEDURES FOR
HIGH VOLTAGE TRANSMISSION LINES**

1. Purpose

To establish a uniform and timely method of reporting complaints received by the permittee concerning the permit conditions for site preparation, construction, cleanup and restoration, special conditions, other requirements, and resolution of such complaints.

2. Scope

This reporting plan encompasses complaint report procedures and frequency.

3. Applicability

The procedures shall be used for all complaints received by the permittee.

4. Definitions

Complaint – A statement presented by a person expressing dissatisfaction, resentment, or discontent as a direct result of the high voltage transmission line and associated facilities. Complaints do not include requests, inquiries, questions or general comments.

Telephone Complaint – A person presenting a complaint by telephone shall indicate whether the complaint relates to (1) a substantive routing permit matter, (2) a high voltage transmission line location matter, or (3) a compensation matter. All callers must provide the following information when presenting a complaint by telephone: (1) name; (2) date and time of call; (3) phone number; (4) email address (if available); (5) home address; (6) parcel number.

Substantial Complaint – Written complaints alleging a violation of a specific route permit condition that, if substantiated, could result in permit modification or suspension pursuant to the applicable regulations.

Person – An individual, partnership, joint venture, private or public corporation, association, firm, public service company, cooperative, political subdivision, municipal corporation, government agency, public utility district, or any other entity, public or private, however organized.

5. Responsibilities

Everyone involved with any phase of the high voltage transmission line is responsible to ensure expeditious and equitable resolution of all complaints. It is therefore necessary to establish a uniform method for documenting and handling complaints related to this high voltage transmission line project. The following procedures will satisfy this requirement:

- A. The permittee shall document all complaints by maintaining a record of all applicable information concerning the complaint, including the following:
 - 1. Name of the permittee and project.
 - 2. Name of complainant, address and phone number.
 - 3. Precise property description or tract numbers (where applicable).
 - 4. Nature of complaint.
 - 5. Response given.
 - 6. Name of person receiving complaint and date of receipt.
 - 7. Name of person reporting complaint to the PUC and phone number.
 - 8. Final disposition and date.
- B. The permittee shall assign an individual to summarize complaints for transmittal to the PUC.

6. Requirements

The permittee shall report all complaints to the PUC according to the following schedule:

Immediate Reports – All substantial complaints shall be reported to the PUC by phone or by e-mail the same day received or on the following working day for complaints received after working hours. Such reports are to be directed to high voltage transmission line permit compliance at the following:
DOC.energypermitcompliance@state.mn.us or 1-800-657-3794. Voice messages are acceptable.

Monthly Reports – By the 15th of each month, a summary of all complaints, including substantial complaints received or resolved during the proceeding month. Such summaries shall be sent to Dr. Burl W. Haar, Executive Secretary, Minnesota Public Utilities Commission, Metro Square Building, 121 7th Place East, Suite 350, St. Paul, MN 55101-2147. A copy of each complaint shall be sent to Permit Compliance, Minnesota Department of Commerce, 85 7th Place East, Suite 500, St. Paul, MN 55101-2198.

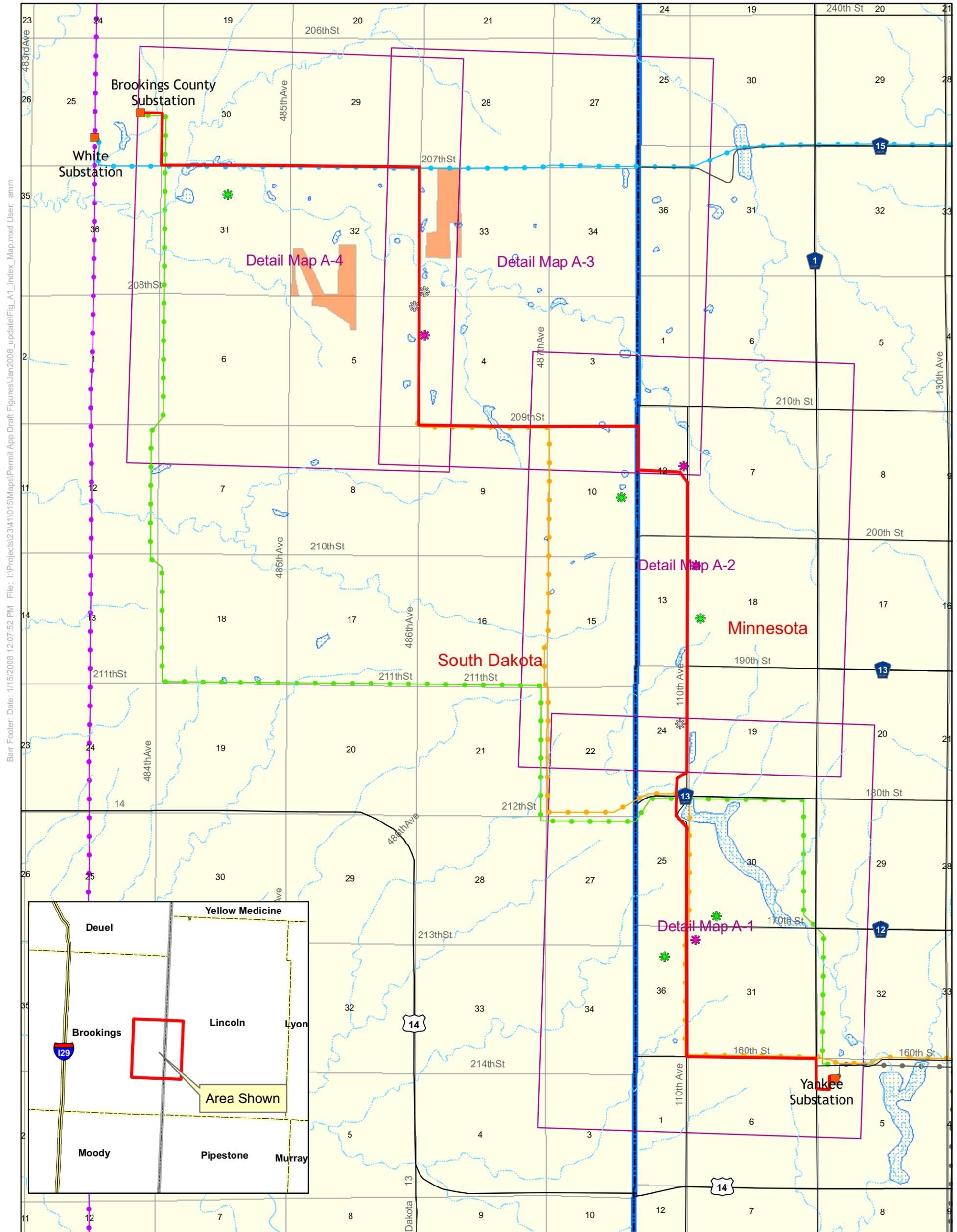
Unresolved Complaints – The permittee shall submit all unresolved complaints to the PUC for resolution by the PUC, where appropriate, no later than 45 days after the date of the submission.

7. Complaints Received by the PUC

Copies of complaints received directly by the PUC from aggrieved persons regarding site preparation, construction, cleanup, restoration, operation and maintenance shall be promptly sent to the permittee.

Initial Screening – Commission staff shall perform an initial evaluation of unresolved complaints submitted to the Commission. Complaints raising substantive routing permit issues shall be processed and resolved by the Commission. Staff shall notify permittee and the complainant if it determines that the complaint is a substantial complaint. With respect to such complaints, each party shall submit a written summary of its position to the Commission no later than ten days after receipt of the staff notification. Staff shall present briefing papers to the Commission, which shall resolve the complaint within twenty days of submission of the briefing papers.

Condemnation/Compensation Issues – If the Commission’s staff initial screening determines that a complaint raises issues concerning the just compensation to be paid to landowners on account of permittee acquisition of high voltage transmission line easements, staff shall recommend to the Executive Secretary that the matter be resolved under the provisions of Minnesota Statutes, Chapter 117. If the Executive Secretary concurs, he shall so report to the Commission and the matter shall be dealt with in the high voltage transmission line condemnation proceedings as an issue of just compensation.



Bair Footer: Date: 1/15/2008 12:07:52 PM File: I:\Projects\23411015\Maps\Permit App Draft Figures\Jan2008_update\Fig_A1_Index_Map.mxd User: ammm

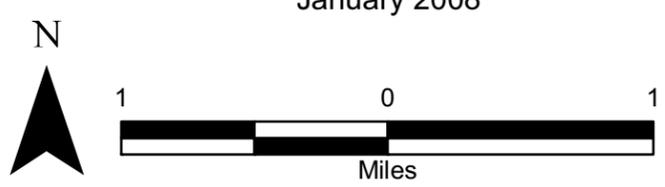
- Brookings-Yankee 115-kV #1
- Yankee-Buffalo Ridge 115-kV Line
- PPM feeder line
- East River 115 kV
- Western 345 kV
- Proposed Route

- Detail Map Guide
- Wetlands
- MN-SD State Line
- SDGFP Walk-in Areas

- Nearby Residential Properties**
- ✱ Residential w/in 300'
 - ✱ Residential w/in 1500'
 - ✱ Abandoned

Figure A-1 Index Map
BRIGO Yankee-Brookings County
Transmission Line

Xcel Energy
Route Permit Application
January 2008



ATTACHMENT D

Exhibit List



In the Matter of the Xcel Energy Route
 Permit Application for the Yankee
 Substation to Brookings County Substation
 115 kilovolt Transmission Line Project

ATTACHMENT D
EXHIBIT LIST
 PUC Docket Number E002/TL-07-1626

Exhibit Number	Date	Description	eDockets Number
1.	January 18, 2008	Notice of Intent to File Route Permit Application Under the Alternative Permitting Process	4900095
2.	January 18, 2008	Route Permit Application	4900095
3.	January 25, 2008	Notice of Commission Meeting	4907122
4.	February 7, 2008	Comments and Recommendations of the Minnesota Department of Commerce Energy Facility Permitting Staff	4912908
5.	February 8, 2008	Public Utility Commission Order	4931502
6.	February 15, 2008	Affidavit of Service: Notice of Public Information Meeting	4945411
7.	February 13, 2008	Affidavit of Publication: Notice of an Application for a Route Permit - Yankee to Brookings Transmission Line Project	4965061
	January 30, 2008	Affidavit of Mailing: Notice of an Application for a Route Permit - Yankee to Brookings Transmission Line Project	
8.	---	Environmental Assessment Public Scoping Comments	5007023 5007024 5007025
9.	March 27, 2008	Recommendation on Scope of the Environmental Assessment, Memo to Public Utilities Commission	5039788
10.	March 27, 2008	Environmental Assessment Scoping Document	5040076

Exhibit Number	Date	Description	eDockets Number
11.	May 30, 2008	Affidavit of Service: Notice of Public Hearing and Availability of Environmental Assessment	5244556
12.	May 30, 2008	Environmental Assessment	5253537
13.	June 2, 2008	Notice of Public Hearing and Availability of Environmental Assessment as Published in Environmental Quality Board <i>Monitor</i>	5268198
14.	June 9, 2008	Affidavit of Service: Notice of Public Hearing and Availability of Environmental Assessment and Copy of Environmental Assessment	5268199
15.	June 4, 2008	Affidavit of Publication: Notice of Public Hearing and Availability of Environmental Assessment	5281864
16.	June 13, 2008	Buffalo Ridge Incremental Generation Outlet Project Status Report	5278379
17.	June 13, 2008	Public Hearing Sign-in Sheet	Available Upon Request
18.	June 17, 2008	Written Comment by Theodore Schwing (dated 6/13/08)	Available Upon Request
19.	June 13, 2008	Public Hearing Transcript	Available Upon Request
20.	June 13, 2008	Administrative Law Judge, Summary of Public Testimony	5327294