

BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

David Boyd
J. Dennis O'Brien
Phyllis Reha
Thomas Pugh
Betsy Wergin

Chair
Commissioner
Commissioner
Commissioner
Commissioner

<p>In the Matter of the Route Permit Application for a 115/69 kV Transmission Line Rebuild from a Proposed West New Ulm Substation to the Existing Fort Ridgely Substation</p>	<p>ISSUE DATE: May 18, 2009</p> <p>DOCKET NO. E002/TL-08-956</p> <p>FINDINGS OF FACT, CONCLUSIONS OF LAW, AND ORDER ISSUING A ROUTE PERMIT TO XCEL ENERGY FOR THE 115/69 KILOVOLT TRANSMISSION LINE REBUILD AND SUBSTATION PROJECT</p>
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The above-captioned matter came before the Minnesota Public Utilities Commission (Commission) on May 14, 2009, acting on an application by Xcel Energy (applicant), for a route permit to construct a new 115 kV transmission line between a newly proposed substation in Brown County, Minnesota, and the existing Fort Ridgely substation in Nicollet County, Minnesota.

A public hearing was held on March 24, 2009, at the New Ulm Civic Center in New Ulm, Minnesota. The hearing was presided over by Judge Raymond R. Krause, Administrative Law Judge (ALJ) for the Minnesota Office of Administrative Hearings (OAH). The hearing continued until all persons who desired to speak had done so. The comment period closed on April 6, 2009, at 4:30 p.m.

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 115/69 kV transmission line rebuild from a proposed West New Ulm substation to the existing Fort Ridgely substation?

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

FINDINGS OF FACT

The Applicants

1. Xcel Energy is a Minnesota corporation with its headquarters in Minneapolis, Minnesota. Xcel Energy is a wholly-owned subsidiary of Xcel Energy Inc., a utility holding company with its headquarters in Minneapolis.
2. Xcel Energy will build, own and operate the new 115 kV line and the associated facilities, including the new substation, the improvements at the Fort Ridgely substation and the reconducted portion of the Franklin 69 kV transmission line between the West New Ulm Substation and the New Ulm 69 kV line tap.

The Project

3. The applicant is proposing to construct a new 115 kV transmission line between a newly proposed West New Ulm substation in Brown County, Minnesota, and the existing Fort Ridgely substation in Nicollet County, Minnesota. The proposed project also involves the construction of a new substation (West Ulm substation) near New Ulm in Brown County, Minnesota, and modifications to the existing Fort Ridgely substation. The route permit application, maps, appendices, and other documents relevant to the proposed project were made available to the public through the Commission's Energy Facility and eDockets websites.¹
4. The project is located in Brown and Nicollet counties, Minnesota.
5. The applicant indicates that the proposed project would provide transmission support to the entire load of New Ulm Public Utilities by providing an alternate 115 kV transmission source in the region. The project would also provide support to Xcel's system in the Morgan and Sleepy Eye areas as well as general reliability benefits to Xcel's other loads in the area.

¹ Documents relevant to the proposed Xcel Energy 115/69 kV transmission line project are on the Commission's Energy Facilities website at: <http://energyfacilities.puc.state.mn.us/Docket.html?Id=19744>

6. The transmission line would be supported by single pole direct-embedded galvanized steel or weathering steel poles with davit arms for the majority of the route with approximately 3.8 miles of the new 115 kV transmission line constructed along the existing Fort Ridgely 69 kV transmission line alignment using new double circuit 115/69 kV structures that would accommodate both the new 115 kV line and the existing 69 kV line on a single structure alignment. These tangent structures are 75 to 90 feet high with foundations that are approximately 4 feet in diameter with a 300 to 400 foot span between each structure. A drilled pier concrete foundation approximately 6 to 8 feet in diameter is proposed for areas requiring a longer span or for angle and dead-end structures. Single circuit segments leading into the Fort Ridgely substation and the proposed West New Ulm substation would be constructed using 65 to 80 foot steel poles with davit arms or horizontal post insulators. Taller structures or double pole structures may be required at the Minnesota River to enable longer spans (600 to 1,200 feet in length) due to elevation changes and to minimize the number of structures in the river's riparian zone.
7. The three phases for this project would each consist of two bundled 795 (Drake) steel supported aluminum conductor or ACSS. The ACSS conductors are 795,000 circular mils or approximately 1.108 inches in diameter and comprised of seven steel wires in the center surrounded by 26 aluminum strands. While similar to conventional aluminum conductor steel reinforced (ACSR), the ACSS conductor has increased conductivity, can operate at a higher temperature, and has less sag. Ultimately, the proposed 115/69 kV transmission line would be a double circuit three-phase, 60 Hz (hertz), alternating current line with the exception of the segments leading into each of the substations which would be separate single circuits. There would 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.
8. The applicants proposed transmission line route would begin on the north side of the proposed West New Ulm substation. The line would exit the substation as a single 115 kV circuit and head east to County Highway 12. At this point the new 115 kV line would be constructed on new double circuit structures that would accommodate the existing 69 kV circuit. The 115/69 kV line would proceed north along the east side of County Highway 12, following the existing alignment. The 115/69 kV route would turn east at the intersection of the DM&E railroad tracks and County Highway 12, running parallel along the south side of the railroad tracks to a point just east of County Highway 29. Continuing along the existing 69 kV alignment to 23rd North Street in New Ulm, the 115/69 kV line would run along 23rd North Street and across the Minnesota River. Once across the Minnesota River the 115/69 kV line continues following the existing 69 kV alignment northeast, crossing over County Road 21 and then heading north for approximately 950 feet. The line would finally proceed east as a single 115 kV circuit crossing County Highway 7 and entering the Fort Ridgely substation on the east side.

9. The new West New Ulm substation would be constructed on approximately 11.5 acres of agricultural land at the northwest corner of the intersection of U.S. Highway 14 and County Highway 12. Preliminary design of the substation indicates substation dimensions of 740 feet by 675 feet, with a 150 foot setback from the centerline of U.S. Highway 14 and 125 foot setback from the County Highway 12 centerline. The actual substation would be entirely enclosed by a fence and would include a 25 foot by 41 foot electrical equipment enclosure containing control equipment and systems for the substation. In addition, a new driveway would be installed to service the substation. A stormwater retention pond would also be constructed on-site to address potential stormwater runoff from the graded substation area. Existing drain tiles located in the area would be rerouted or replaced to maintain current drainage patterns.
10. The new West New Ulm substation would serve as a termination point for the new 115/69 kV line and the existing Essig-Sleepy Eye-Franklin 69 kV line. The substation is also being designed to accommodate potential future transmission line terminations.
11. The applicant is requesting a 200 foot route width, 100 feet on each side of the existing 69 kV centerline for the entire length of the proposed route with the exception of County Highway 12, where a 400 foot route width, 200 feet on each side of the existing 69 kV centerline, is requested. The applicant would acquire a much smaller easement for construction and maintenance of the proposed project, within the requested route width(s).
12. The applicant indicates that a 75 foot wide right-of-way would be required for the entire length of the proposed transmission line project. The proposed transmission line rebuild would be constructed on the 69 kV centerline and within the existing easements. However, there may also be situations where new easement would be required due to road configurations and transmission line design. It is also anticipated that new easements would be required near both the Fort Ridgely substation and the proposed West new Ulm substation.

Procedural History

13. On August 12, 2008, the applicants 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 7849.5720.²
14. On August 29, 2008, the applicants filed a route permit application for a 4.2-mile 115/69 kV transmission line rebuild to be constructed in the townships of Milford and Lafayette in Brown and Nicollet counties, Minnesota.³
15. On September 15, 2008, the applicant filed a letter correcting errors in the route permit application.⁴

² Exhibit 1.

³ Exhibit 2.

⁴ Exhibit 3.

16. The Commission determined that the project is eligible for the alternative permitting process of the Power Plant Siting Act, Minnesota Statute 216E.04 and Minnesota Rule 7849.5500, and accepted the application as complete on October 6, 2008.⁵
17. On October 6, 2008, the applicant mailed a Confirmation of Publication and Mailing Notice of a Submittal of an Application for a Route Permit to those persons whose names are on the general list maintained by the Commission for this purpose, local and regional officials, and property owners in compliance with Minnesota Rule 7849.5550.⁶
18. On October 28 and 31, 2008, the Office of Energy Security (OES) issued and mailed a Notice of Public Information Meeting to those persons whose names are on the project list maintained by the PUC for this purpose and designated State Agency Technical Representatives in compliance with Minnesota Rule 7849.5550.⁷
19. The applicant on behalf of the OES published Notice of Public Information Meeting in the *New Ulm Journal* (November 3, 2008) in compliance with Minnesota Rule 7849.5570.⁸
20. In accordance with Minnesota Rule 7849.5570, OES staff held a public information and environmental assessment scoping meeting on November 19, 2008, at the New Ulm Civic Center in New Ulm, Minnesota, to discuss the project with the public and gather public input for the scope of the environmental assessment to be prepared. Approximately seven people attended the meeting.
21. The public comment period on the scope of environmental assessment closed on December 5, 2008. The OES received six comment letters during the scoping comment period.⁹ Four of the letters suggested two different alternative routes or route segments to the applicant's preferred route. An alternate substation location site was suggested in one of the letters. A revised transmission structure design and underground alternative was suggested for the portion of the route that would run along 23rd North Street.
22. The scoping decision for the environmental assessment was signed by the Director of the OES on December 19, 2008, filed with the Commission and made available to the public as provided in Minnesota Rule 7849.5700, subpart 3.¹⁰
23. On December 23, 2008, the OES mailed the Scoping Decision to persons on the OES project contact list.¹¹

Environmental Assessment

24. The environmental assessment was filed with the Commission and made available on March 4, 2009.¹²

⁵ Exhibit 7.

⁶ Exhibit 6.

⁷ Exhibit 8.

⁸ Exhibit 9.

⁹ Exhibit 10.

¹⁰ Exhibit 11.

¹¹ Exhibit 11.

¹² Exhibit 13.

25. The environmental assessment was prepared in accordance with Minnesota Rule 7849.5700, subpart 4, and contained all the information required.
26. The environmental assessment evaluated the applicant's proposed route along with one alternative route (Robert's Alternative), one alternative substation location site, and transmission structure design modifications and undergrounding along 23rd North Street.
 - a. Roberts Alternative – The proposed route and existing 69 kV line would instead be re-directed to follow the Roberts' north property line east to the north-south property line and head south along that property line to 23rd North Street instead of bisecting the property as is currently proposed. This alternative is minimal in its deviation from the preferred route. There would be no new or additional impacts attributed to this alternative. The applicant has indicated that this alternative would be feasible and supports this alternative.
 - b. Substation Location Alternative – Milford Township suggested an alternative substation site that would be located on 10 acres in Milford Township Section 13, south of Brown County Highway 29. The alternative would have the substation site located approximately 900 feet west of Brown County Highway 29 and the DM&E Railroad intersection, on the south side of the existing railroad tracks, in Milford Township, Section 13. While the applicant still believes the originally proposed West new Ulm substation location to be feasible, the applicant actually prefers the alternative substation site over the site proposed in the route permit application.

Public Hearing

27. On March 4, 2009, the OES mailed a combined Notice of Public Hearing and Availability of Environmental Assessment to those persons whose names are on the OES project contact list, local and regional officials, and property owners in compliance with Minnesota Statute 216E.03, subdivision 6.¹³
28. Pursuant to Minnesota Statutes 216E.03, subdivision 6, the applicants, on behalf of the OES, published combined Notice of Public Hearing and Availability of Environmental Assessment in the *New Ulm Journal* (March 11, 2009).¹⁴
29. Pursuant to Minnesota Rule 7849.5700, subpart 6, the OES published combined Notice of Public Hearing and Availability of Environmental Assessment in the *EQB Monitor* (March 9, 2009).¹⁵
30. Judge Raymond R. Krause presided over the public hearing conducted on March 24, 2009. The public hearing was held at the New Ulm Civic Center in New Ulm, 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.

¹³ Exhibit 12.

¹⁴ Exhibit 14.

¹⁵ Exhibit 15.

31. A total of nine 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.
32. Pursuant to Minnesota Rule 7849.5710, subpart 3, Minnesota Office of Energy Security, Energy Facility Permitting project manager Scott Ek and public advisor David Birkholz 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.
33. Ms. Herring from the law firm of Briggs and Morgan appeared at the public hearing on behalf of Xcel Energy in this matter. Also present at the public hearing for Xcel Energy were Timothy Rogers, Permitting Analyst; Brad Hill, Transmission Planner; and Brian Mielke, land rights agent for this project. Joe Sedarski, Xcel's environmental consultant on this project, was also present.
34. A comment period was open until April 6, 2009, for receipt of comments.
35. The hearing transcript was filed on April 1, 2009.¹⁶
36. The ALJ filed the Summary of Public Comment on April 13, 2009.¹⁷ A total of seven written comment letters were submitted to the ALJ.¹⁸
37. Oral comments received at the hearing indicated both objection and support for the proposed route and support for the alternate substation location. Concern was also expressed about the overhang of the new conductors along 23rd North Street.

Written comments expressed health and safety concerns about the transmission line going through the residential area of 23rd North Street along with the potential for diminished property values and compensation due to the project, requesting that Xcel consider a different route that would avoid 23rd North Street.

The Milford Town Board submitted comments indicating support of the Substation Location Alternative. Conversely, a comment expressing concern about the choice of Substation Location Alternative, questioning the need for 10 acres of land and whether sufficient thought had been given to road safety near that site was also submitted.

The Public Utilities Commission of the city of New Ulm supports the project in general suggesting two alternatives, either to place the line underground or to modify the pole design along 23rd Street North.

The Minnesota Department of Natural Resources also filed comments regarding the Department's concerns about the proximity of the route and the substation to the Somsen Wildlife Management Area.

The ALJ report contains a summary of all public comments received at the hearing.¹⁹

¹⁶ Exhibit 24.

¹⁷ Exhibit 25.

¹⁸ Exhibits 17 to 23.

¹⁹ Exhibit 25.

Potential Impacts and Mitigation

38. The proposed transmission line route is located in Lafayette Township, Nicollet County, and Milford Township, Brown County, traveling across the Minnesota River and the north end of the city of New Ulm. The main thoroughfares in the area of the project are U.S. Highway 14 and County Highway 12. The proposed 115 kV route would be designed to accommodate the existing 69 kV transmission line on the same structure and follow that alignment for 90 percent of the proposed route. The closest residence to the existing 69 kV transmission alignment is a rural residence located in north Milford Township that is approximately 35 feet from the conductors. The current 69 kV alignment also travels the length of 23rd North Street, a high-density residential area. There are 15 residential structures on 23rd North Street that sit between 41.5 to 67 feet from the existing 69 kV conductors.²⁰
39. The proposed transmission line and associated facilities will be designed to meet or exceed all requirements of the National Electric Safety Code, which is the utility safety standard that applies to all transmission line facilities. The proposed transmission line facility will meet the North American Electric Reliability Corporation standards. In addition, the substation station facilities will be fenced, kept free of vegetation, maintained for adequate drainage, and access will be limited to authorized personnel.
40. The issue of electric and magnetic fields was discussed in the environmental assessment. 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. No Minnesota regulations have been established pertaining to magnetic fields from high voltage transmission lines.
41. Appropriate measures will be taken during transmission line detailed design and construction to prevent the potential for any stray voltage problems for this project. As a condition of the permit, all fixed metallic objects on or off the right-of-way, except electric fences that parallel or cross the right-of-way, will be grounded to the extent necessary to limit the induced short circuit current between ground and the object and to comply with the ground fault conditions specified in the National Electric Safety Code. Xcel will be required to address and rectify any stray voltage problems that arise during transmission line operation.
42. Short-term exceedance of daytime noise standards due to construction would be intermittent and temporary in nature. Construction activities will be limited to daytime working hours, therefore the nighttime noise level standards will not be exceeded.

²⁰ Exhibit 13 at 13.

43. Estimated L_5 audible noise calculations provided by the applicant indicate the noise level at 50 feet from the center of the transmission alignment would approach a maximum of 7.8 dB(A) for the 115/69 kV double circuit segment and 4.8 dB(A) for the 115 kV single-circuit which is less than normal outdoor background levels (~30 dB(A) or less) and is therefore not usually audible. The estimated transmission line audible noise levels are also less than the Minnesota residential nighttime standard of 50 dB(A) L_{10} . Long-term noise impacts from the project are not anticipated and mitigation measures are not necessary.²¹
44. There are 15 residential structures located along 23rd North Street from North Broadway Street, through Terrace Drive North to Boundary Street. Nine are located on the south side of 23rd North Street and the remaining six are located on the north side. There is one multi-tenant facility (720 23rd North Street) and at least one duplex. The current alignment of the existing 69 kV transmission line places the conductors at approximately 41.5 to 67 feet from residential structures along 23rd North Street. The 69 kV line has historically been located in this area as currently configured since the 1920's, prior to residential construction, as indicated by the applicant. Replacing the existing 69 kV distribution line with a double-circuit 115/69 kV line in the existing utility right-of-way would have an incremental impact on visual resources since an existing line already occupies the area. That is, the new transmission poles would be taller than the existing and would allow for greater span lengths that may translate to fewer poles along 23rd North Street. Depending on final structure design, the new conductor, when compared to the existing 69 kV line, would be positioned 4 to 6 closer to the homes along 23rd North Street, but may also be placed higher off the ground due to the increased pole height.²²
45. Input pertaining to visual impacts from landowners or land management agencies 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 during construction and maintenance. Wetlands, lakes, and surface flows will be crossed in the same location as the existing transmission lines. New structures will be designed to support the existing 69 kV lines, thereby allowing the use of existing alignments and will share existing road rights-of-way to the extent that such actions do not violate sound engineering principles or system reliability criteria. Landowners will be compensated for the removal of mature yard trees through easement negotiations. Structures will be placed at the maximum feasible distance from intersecting roads, highway, or trail crossings and could cross roads to minimize or avoid impacts. The Commission will require, as a permit condition, that the applicants work with landowners to identify issues related to the transmission line such as distance from existing structures, tree clearing, and other aesthetic concerns, should a route permit be issued for the proposed project.²³

²¹ Exhibit 13 at 14.

²² Exhibit 13 at 14.

²³ Exhibit 13 at 16.

46. Residents living along 23rd North Street indicated concern that, if constructed as proposed, the new transmission conductors would be even closer to their homes than the existing 69 kV line already is. Again the current 69 kV conductors are approximately 41.5 to 67 feet from homes along 23rd North Street.²⁴ The applicant revisited the proposed structure design and found that it would be feasible to construct the segment along 23rd North Street using different structures. The revised structure design would increase the distance between the conductors and the residences along 23rd Street North by up to three feet compared with the design proposed in the route permit application. These structures would be designed to utilize the existing 50 foot right-of-way. Compared to the existing 69 kV structures, the new structures would be taller and have an average span of 325 feet between structures. The applicant has agreed to the above structure modifications.²⁵

47. Residents living along 23rd North Street and New Ulm Public Utilities suggested the option of burying or undergrounding the proposed 115/69 kV double-circuit line for the segment that runs along 23rd North Street from Boundary Street to Broadway. The applicant evaluated the possibility of undergrounding the proposed 115/69 kV double-circuit line for a 0.26 mile segment that runs along 23rd Street North from Boundary Street to North Broadway Street. Overhead construction was the preferred technology after evaluating and comparing the feasibility of undergrounding this segment with overhead construction, due to the significant cost increases associated with undergrounding this segment. In addition, underground transmission facilities present some special construction, service and maintenance challenges.²⁶

Underground transmission construction as compared to overhead lines increased noise, dust, and traffic disruption. Regardless of overhead or underground construction, magnetic and electric field intensity decreases with distance. Undergrounding both the proposed 115 kV and the existing 69 kV along 23rd North Street would add an estimated \$4.4 million to base cost of the project as proposed. The cost for continued maintenance on an underground line compared to an above ground line is significantly higher.²⁷

48. Impacts to transportation would be localized and short term. All necessary provisions would be made to conform to safety requirements for maintaining the flow of public traffic. Traffic control barriers and warning devices would be used when appropriate. Construction operations would be conducted to offer the least possible obstruction and inconvenience to public traffic. The construction contractor would be required to plan and execute delivery of heavy equipment in such a manner that would avoid traffic congestion and reduce the likelihood of dangerous situations along local roadways. The applicant will work closely with Minnesota Department of Transportation (MnDOT), Brown and Nicollet counties, and the city of New Ulm to ensure minimal disruption to area traffic.²⁸

49. Construction will not impact the county or city water, sewer, and electric services, emergency services, or private wells and septic systems.

²⁴ Exhibit 13 at 16.

²⁵ Exhibit 16 at 14.

²⁶ Exhibit 16 at 9.

²⁷ Exhibit 13 at 18.

²⁸ Exhibit 13 at 27.

50. The New Ulm Public Utilities electric transmission system is connected to the existing Xcel 69 kV line at a switch located at the southwest corner of North Broadway and 23rd North Street. As part of the proposed project, the existing switch structure will be removed and replaced by a new switch to be relocated on the east side of North Broadway, on city-owned land. The applicant will work with New Ulm Public Utilities during construction planning to ensure coordination with the new interconnection.²⁹
51. Zoning maps indicate the proposed transmission line route crosses land designated as Urban and Industrial, Rural Development, Cultivated, Transitional Agriculture, and Deciduous forest. In addition, comments provided by Milford Township indicate that the proposed substation site is located in an area marked for future expansion of the city of New Ulm.³⁰
52. The applicant indicates that transmission line construction may temporarily impact approximately 4.6 acres of agriculture land. Impacts would originate from the various construction vehicles required to install the transmission line and structures, and may result in rutting and compaction of soil and farm fields. Because the new transmission line will be utilizing the existing 69 kV alignment and right-of-way, new impacts to agricultural land should be minimal and temporary in nature. The construction of the West New Ulm substation will result in permanent impact to all of the 11.5 acres of land required for the proposed substation.³¹
53. There are no state forests, federal forests, or commercial forest resources located along the proposed transmission line rebuild route or at the proposed substation site.³²
54. The applicant identified a private sand and gravel mine located north of 23rd North Street and adjacent to the existing 69 kV line. The operation is being conducted by M.R. Paving & Excavating, Inc. The applicant indicates they have met with M.R. Paving & Excavating and determined that the proposed transmission line project should not impact the mining operations and mining operation will not interfere with the proposed project. While no impacts to the mining operation are anticipated, the applicant will coordinate with M.R. Paving & Excavating to ensure there will be no impacts to the mining operation or line work.³³

²⁹ Ibid.

³⁰ Exhibit 10.

³¹ Exhibit 13 at 28.

³² Ibid.

³³ Ibid.

55. Temporary driveways may be constructed between the roadway and the structures to minimize impact by using the shortest route possible. Construction mats may also be used to minimize impacts on access paths and construction areas. Furthermore, transmission line route permits generally require project related land impacts to be restored to pre-construction condition upon project completion. The applicant will work with landowners to minimize impacts to farming operations along the proposed route, such as initiating construction before crops are planted or following harvest, working with the property owners pre- and post construction to minimize any impact. The applicant would be required to compensate landowners for any yard/landscape damages, structure damage, crop damage, soil compaction, or drain tile damage that may occur during construction, as a condition of the route permit. The applicant will implement best management practices during construction in an effort to reduce dust, erosion, and minimize compaction. Soil erosion control best management practices will be employed to minimize loss of topsoil. Areas disturbed will be returned to their pre-construction condition. Transmission line route permits generally require use of soil erosion controls and require soils compacted by construction activities to be restored to pre-construction condition upon project completion.³⁴
56. Larger disturbed areas of one acre or more (West New Ulm substation) will be regulated by a National Pollutant Discharge Elimination System (NPDES) permit and Stormwater Pollution Prevention Plan (SWPPP) prepared for the project. Mitigation under the NPDES includes implementation of the SWPPP with the appropriate erosion control methods developed specifically for the site. The Minnesota Pollution Control Agency (MPCA) issues combined NPDES/State Disposal System permits for construction sites, industrial facilities and municipal storm sewer systems. Compliance with the MPCA stormwater program will be a condition of the route permit.
57. The New Ulm Municipal Airport is located within the vicinity of the project. The project is not expected to impact the airport, because it entails replacing an existing 69 kV transmission line and structures. The applicant should review the current airport zoning documents or ordinances to ensure that the new structures comply with airport safety zones and ordinances upon completion of line design.³⁵
58. Two state wildlife management areas (WMAs) are located near the proposed transmission line route. The Somsen WMA is located at the northeast corner of U.S. Highway 14 and County Highway 12 and the Fritsche Creek WMA in Nicollet County along the Minnesota River. Although the project will not directly impact these resources, the transmission line structures will likely be visible to those using either of the WMAs and the newly proposed substation would be visible from the Somsen WMA.³⁶

³⁴ Exhibit 13 at 29.

³⁵ Exhibit 13 at 28.

³⁶ Exhibit 13 at 26.

59. A bike trail managed by the city of New Ulm runs south, paralleling the DM&E railroad from North Broadway and KC Street to 20th Street South. The proposed transmission line would cross over the bike trail near the intersection of Broadway and 23rd North Street. The bike path may need to be rerouted during construction of the transmission project at this location. In addition, the line would be visible to those using the bike path in this area. The applicant will work with the city of New Ulm to reroute the bike trail during transmission line construction, as necessary.³⁷
60. The proposed transmission line would cross an area of the Minnesota River that is a state designated canoe route. The new 115 kV transmission line will be constructed along the existing Fort Ridgely 69 kV river crossing alignment using double circuit 115/69 kV structures accommodating the new 115 kV and the existing 69 kV on a single structure alignment, thereby avoiding a new crossing of the Minnesota River.³⁸
61. The applicant conducted a records review at the Minnesota State Historic Preservation Office (SHPO) and the Office of the State Archaeologist (OSA). The records review identified three historic architectural properties and four archaeological sites within one mile of the site, as provided in the route permit application. The proposed project area has not been formally surveyed for historic and archaeological sites. The applicant will conduct a phase I survey of the project area surrounding the Minnesota River prior to commencing construction activities. In the event that a resource is encountered, the SHPO should be contacted and consulted; the nature of the resource should be identified; and a determination should 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, could more than likely be avoided by design modification (movement of planned structures) or data recovery by selective excavation. This requirement would be carried over as a condition of the route permit.
62. There will be no significant impacts to air quality; therefore, no mitigation is necessary. Temporary impacts due to construction would be minimized by using best management practices to reduce dust emissions.³⁹
63. The proposed route will cross three different public waters as identified on Public Waters Inventory (PWI) maps. These include two watercourses, the Minnesota River and Huelskamp Creek, and an unnamed marsh (08-18P) located within Somsen WMA. A license from the Department of Natural Resources (DNR) is required for the passage of any utility over, under or across any state land or public water. The applicant will apply for a license to cross public lands and waters or confirm the applicability of existing licenses for the 69 kV line and must abide by the conditions established by the DNR.
64. There are no lakes in direct conflict within the alignment of the any of the routes.

³⁷ Ibid.

³⁸ Ibid.

³⁹ Exhibit 13 at 31.

65. The project will cross approximately five wetlands identified in the U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI). The NWI wetlands are located at the start of the proposed route near Somsen WMA and in riparian areas along where the route would cross the Minnesota River. The applicant also identified a number of small isolated wetlands and an aggregate mine pond. In Minnesota wetlands are regulated by the U.S. Army Corps of Engineers (Corps) under Section 404 of the Clean Water Act. The applicant will need to consult with Corps upon completion of final design and prior to construction to determine whether a Section 404 permit would be required for placement of transmission structures. Because the Minnesota River will be crossed and is considered a navigable water, the applicant may also need to apply to the Corps for a permit under Section 10 of the River and Harbors Act.⁴⁰
66. Potential impacts to wetlands and water resources will be limited to ground disturbance related to construction traffic and placement of transmission line structures. Xcel proposes to use construction mats or construction during frozen conditions to minimize disturbance and compaction of wetlands and riparian areas during construction. In consultation with the DNR, best management practices will be used when placing poles in or near the Minnesota River. Soil excavated from the wetlands and riparian areas will be contained and not placed back into the wetland or riparian area. Silt fencing or other erosion control measures will be used to prevent sedimentation when working near wetlands and watercourses. Areas disturbed by construction activities will be restored to pre-construction conditions (soil horizons, contours, vegetation, etc.).
67. According to Federal Emergency Management Agency, Flood Insurance Rate Maps, the proposed route crosses through the Minnesota River 100-year and 500-year floodplain. The determined base flood elevation in that area of the proposed route would be well below the 75 to 90 foot tall transmission structures and electrical components. In addition, due to the transmission structures small footprint area, water drainage or floodplain elevations will not be altered by the transmission line structures. Floodplain development permits are not anticipated for this project.⁴¹
68. The location of the proposed substation would not impact any wetlands or surface waters and is not located in a floodplain area.
69. The project area has been largely converted from native prairies and wetlands to agricultural, residential, and industrial uses. Moreover, approximately 90 percent of the route utilizes existing utility rights-of-way. No impacts to native plant communities are anticipated. Tree clearing will be limited to the transmission right-of-way and areas that impact safe operation of the transmission facilities.⁴²
70. There are no listed native plant communities or areas of high biodiversity located within or near the project area; therefore, no impacts are anticipated with any of the routes.

⁴⁰ Exhibit 13 at 32.

⁴¹ Ibid.

⁴² Exhibit 13 at 33.

71. There is a potential for temporary displacement of native wildlife during construction of the proposed project. The habitat that would be affected is limited to trees that require removal and fringe areas of agriculture plots. Displacement of fauna will be minor and temporary in nature. No long-term effects related to displacement are anticipated except for conversion of agriculture crops for construction of the substation.
72. The principal impact posed by the transmission line project to wildlife is avian collision once the transmission lines have been constructed and are operational. The applicant will evaluate mitigative measures in cooperation with the USFWS and DNR in areas of the project where the chance of avian collision or electrocution is higher. Xcel's standard transmission design incorporates spacing of conductor(s) and grounding devices intended to eliminate the risk of electrocution to raptors with larger wingspans that may simultaneously come in contact with a conductor and grounding devices.⁴³ Bird flight diverters will be incorporated into the transmission line design for the portion of line that would span the Minnesota River. The DNR recommends the use of bird flight diverters at the Minnesota River Crossing and any portion of the transmission line within 1,000 feet of the Somsen WMA.⁴⁴
73. A DNR database search identified 17 known occurrences of rare species and natural communities within 1.5 miles of the project. Of the 17 rare species, only four are located within or near the proposed project boundaries. Two of these rare species are rare mussels that are located in the Minnesota River. The applicant will use silt fencing or other erosion control measures when working near waterways and wetlands (i.e. the Minnesota River) to prevent sedimentation and disturbance of these areas and their inhabitants. The other two records are the Sullivant's milkweed and a mesic prairie community associated with railroad rights-of-way. The project will be designed to avoid transmission line construction within the railroad right-of-way. Should construction or encroachment of the railroad right-of-way become necessary, the applicant will perform a botanical survey. Construction and maintenance personnel will be made aware of the rare resources and plant communities during pre-construction meetings in effort to minimize possible disturbance.⁴⁵
74. The USFWS indicated that there are no federally-listed threatened and endangered species or listed critical habitats that occur within the vicinity of the proposed project.
75. Radio, television, and communication system interference is not anticipated. No mitigation is necessary.
76. Socioeconomic impacts will be primarily positive. The project will create short-term construction expenditures in the area and increased electric service reliability in the project area and the surrounding region.
77. The applicants estimated that the proposed route will cost approximately \$14.5 million with typical annual operating costs on the order of \$300 to \$500 per mile of transmission right-of-way.⁴⁶

⁴³ Exhibit 13 at 34.

⁴⁴ Exhibit 23.

⁴⁵ Exhibit 13 at 35.

⁴⁶ Exhibit 2 at 14.

78. The proposed project would add a second 115 kV source to the area; providing for a more reliable transmission system.

Summary of Human and Environmental Impacts and Commitment of Resources

79. All routes analyzed in the environmental assessment have human and environmental impacts, some of which are unavoidable if the project is permitted and built. None of the routes evaluated is expected to cause an irreversible or irretrievable commitment of resources.
80. As indicated in Finding 26a., the Roberts Alternative is minimal in its deviation from the proposed route. The applicant believes that its initial proposed route is still feasible, however, after consideration of the Roberts Alternative, the applicant supports the Roberts Alternative. The applicant requests a route width of 100 feet on each side of the route centerline along the Roberts Alternative.⁴⁷
81. Milford Township requested a substation location alternative as described in Finding 26b. There would be no new or additional impacts attributed to this alternative when compared with the proposed route except that the location is adjacent to the DM&E railroad where known occurrences of Sullivant's milkweed and a mesic prairie community have previously been identified, therefore a botanical survey of the area would be requirement in the permit.
82. In their testimony, the applicant indicated that the substation location alternative would actually have less impacts than the substation location site proposed in the route permit application.

The Alternative Substation Location Site is more compatible with current and future land use. The site is currently zoned as limited industrial by Brown County. The city of New Ulm's comprehensive plan indicates that the future land use for the Alternative Substation Location site will be industrial, whereas the future land use for the substation site proposed in the route permit application considers that site to be along a future commercial or growth corridor. The Alternative Substation site has fewer construction constraints including fewer drain tile issues compared to the substation site proposed in the route permit application.⁴⁸

The Alternative Substation Site and would reduce the total length of the proposed 115 kV transmission project by approximately 1.3 miles when compared to the site proposed in the route permit application. The shorter total project length (2.9 miles) would impact less land, including agricultural land, and reduce overall costs. The overall project cost associated with Alternative Substation Location site is approximately \$1.6 million less than with the substation site proposed in the route permit application.⁴⁹

83. While the applicant still believes the originally proposed West new Ulm substation location to be feasible, the applicant prefers the alternative substation site over the site proposed in the route permit application.⁵⁰

⁴⁷ Exhibit 16 at 4.

⁴⁸ Exhibit 16 at 7.

⁴⁹ Ibid.

⁵⁰ Exhibit 16 at 7.

84. The greatest concern identified in public comment regarding the project has been the distance at which the line would be located from existing residences along the portion of the proposed route that would run along 23rd North Street. As indicated in Finding 46., the applicant revisited the proposed structure design and found that it would be feasible to construct the segment along 23rd North Street using different structures. The revised structure design would increase the distance between the conductors and the residences along 23rd Street North by up to three feet compared with the design proposed in the route permit application. These structures would be designed to utilize the existing 50 foot right-of-way. Compared to the existing 69 kV structures, the new structures would be taller and have an average span of 325 feet between structures. The applicant has agreed to the above structure modifications.⁵¹
85. Upon evaluating and comparing the feasibility of undergrounding with overhead construction along 23rd North Street, overhead construction was the preferred technology due to the significant cost increases associated with undergrounding this segment. In addition, underground transmission facilities present some special construction challenges (Finding 47.).

Applicable Statutory Conditions

86. Minnesota Statute 216B.243, subdivision 2, states that no large energy facility shall be sited or constructed in Minnesota without the issuance of a certificate of need by the Commission. Minnesota Statute 216B.2421, subdivision 2(3) defines a “large energy facility” as any high voltage transmission line with a capacity of 100 kV or more with more than ten miles of length or that crosses a state line. Because the proposed project is less than 10 miles in length, no certificate of need is required.
87. 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.

⁵¹ Exhibit 16 at 14.

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 7849.5500.
4. The applicants, 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, and 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.
7. The conditions included in the route permit are reasonable and appropriate.

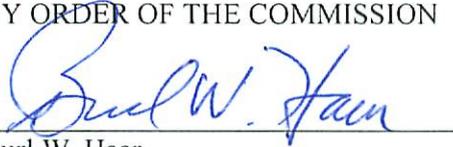
Based on the Findings of Fact, Conclusions of Law contained herein and the entire record of this proceeding, the Commission hereby makes the following:

ORDER

1. A route permit is hereby issued to Xcel Energy to construct approximately 2.9 miles of 115 kV transmission line between a newly proposed substation in Brown County, Minnesota, and the existing Fort Ridgely substation in Nicollet County, Minnesota. A 200 foot route width centered on the existing Fort Ridgely 69 kV centerline from the new substation to the existing Fort Ridgely substation including 100 feet along each side of the Roberts' north and east property lines is approved, with the exception of the segment that would follow along 23rd North Street. A 50 foot route width centered on the existing Fort Ridgely 69 kV centerline running along 23rd North Street is approved.
2. The route permit shall be issued in the form attached hereto, with a map showing the approved route.
3. Applicant shall supplement the record promptly as to the engineering and FAA issues raised at the Commission meeting.
4. This Order shall become effective immediately.

Approved and adopted this 18th day of May 2009.

BY ORDER OF THE COMMISSION



Burl W. Haar,
Executive Secretary

STATE OF MINNESOTA PUBLIC UTILITIES COMMISSION

**ROUTE PERMIT FOR CONSTRUCTION OF A HIGH
VOLTAGE TRANSMISSION LINE**

IN

BROWN COUNTY AND NICOLLET COUNTY, MINNESOTA

**ISSUED TO
XCEL ENERGY**

PUC DOCKET No. E002/TL-08-956

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

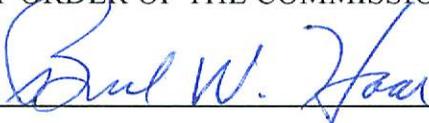
Northern States Power Company, d/b/a Xcel Energy

Northern States Power Company, d/b/a Xcel Energy, is authorized by this route permit to construct the two and nine-tenths mile segment located within the State of Minnesota, of a new 115 kilovolt (kV) transmission line between a new substation in Brown County to the Fort Ridgely substation in Nicollet County.

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 18th day of May 2009

BY ORDER OF THE COMMISSION



Burl W. Haar,
Executive Secretary

This document can be made available in alternative formats (i.e. large print or audio tape) by calling 651.201.2202 (voice). Persons with hearing or speech disabilities may call us through Minnesota Relay at 1.800.627.3529 or by dialing 711.

I. ROUTE PERMIT

The Minnesota Public Utilities Commission (Commission) hereby issues this route permit to Xcel Energy (permittee) pursuant to Minnesota Statutes Chapter 216E and Minnesota Rules Chapter 7849. This permit authorizes the permittee to construct approximately two and nine-tenths miles of 115 kV transmission line and associated facilities between the existing Fort Ridgely substation and a new substation to be located in Brown County. The new 115 kV line will be double circuited with the existing Fort Ridgely 69 kV line.

II. PROJECT DESCRIPTION

The permittee is authorized to build an approximate 2.9 mile segment of 115 kV transmission line double circuited with the existing Fort Ridgely 69 kV line and a new 115-69 kV substation. The proposed project will extend from Milford Township, Brown County to Lafayette Township, Nicollet County.

The transmission line will be supported by single pole direct-embedded galvanized steel or weathering steel poles with davit arms. The new 115 kV transmission line will be constructed along the existing Fort Ridgely 69 kV transmission line alignment using new double circuit 115/69 kV structures that would accommodate both the new 115 kV line and the existing 69 kV line on a single structure alignment. These tangent structures are 75 to 90 feet high with foundations that are approximately 4 feet in diameter with a 300 to 400 foot span between each structure. A drilled pier concrete foundation approximately 6 to 8 feet in diameter is proposed for areas requiring a longer span or for angle and dead-end structures. Single circuit segments leading into the substations would be constructed using 65 to 80 foot steel poles with davit arms or horizontal post insulators. Taller structures or double pole structures may be required at the Minnesota River to enable longer spans (600 to 1,200 feet in length) due to elevation changes and to minimize the number of structures in the river's riparian zone.

The applicant will use a modified transmission structure design along the portion of the route that will follow 23rd North Street. The revised structure design as identified by the permittee would increase the distance between the conductors and the residences along 23rd Street North by up to three feet compared with the design proposed in the route permit application. These structures would be designed to utilize the existing 50 foot right-of-way. Compared to the existing 69 kV structures, the new structures would be taller and have an average span of 325 feet between structures.

The three phases for this project will each consist of two bundled 795 (Drake) steel supported aluminum conductor or ACSS. The ACSS conductors are 795,000 circular mils or approximately 1.108 inches in diameter and comprised of seven steel wires in the center surrounded by 26 aluminum strands. While similar to conventional aluminum conductor steel reinforced (ACSR), the ACSS conductor has increased conductivity, can operate at a higher temperature, and has less sag. Ultimately, the proposed 115/69 kV transmission line will be a double circuit three-phase, 60 Hz (hertz), alternating current line with the exception of the segments leading into each of the substations which would be separate single circuits. There would 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 new substation will be located on 10 acres in Milford Township Section 13, south of Brown County Highway 29. Preliminary design indicates substation dimensions of 700 feet by 600 feet, located approximately 150 feet west of Brown County Highway 29 and the DM&E Railroad intersection, on the south side of the existing railroad tracks, in Milford Township, Section 13. The actual substation would be entirely enclosed by a fence, a new driveway would be installed to service the substation. A stormwater retention pond would also be constructed on-site to address potential stormwater runoff from the graded substation area. Existing drain tiles located in the area would be rerouted or replaced to maintain current drainage patterns.

The existing Fort Ridgely substation will be modified by relocating the existing Fort Ridgely-Swan Lake 115 kV termination 40 feet south and install new circuit breakers, line terminations, switches, and associated equipment.

The existing switch connecting the New Ulm Public Utilities 69 kV line with the Fort Ridgely 69 kV line located at 23rd North Street and North Broadway Street will be removed and a new switch will be constructed on the east side of North Broadway Street.

III. DESIGNATED ROUTE / SITE

The route designated by the Commission in this permit comprises the 2.9-mile segment located in Brown and Nicollet counties, Minnesota, and as described in detail below, and shown on the official route map attached to this permit.

The transmission line would exit a new proposed substation located on 10 acres approximately 150 feet west of Brown County Highway 29 and the DM&E Railroad intersection, on the south side of the existing railroad tracks, in Milford Township, Section 13 (Substation Location Alternative). The new 115 kV line would be constructed on new double circuit structures that would accommodate the existing 69 kV circuit. The 115/69 kV line would proceed east along the existing 69 kV alignment, crossing County Highway 29 to the northwest corner of property owned by Jim and Alice Roberts.

The line would continue east along the Roberts north property line to their east property line turning south following the east property line as a 115/69 kV double-circuit to 23rd North Street in New Ulm (Roberts Alternative). The 115/69 kV line would run along 23rd North Street and across the Minnesota River, following the existing 69 kV alignment. Once across the Minnesota River the 115/69 kV line continues following the existing 69 kV alignment northeast, crossing over County Road 21 and then heading north for approximately 950 feet. The line would finally proceed east as a single 115 kV circuit crossing County Highway 7 and entering the Fort Ridgely substation on the east side.

The route width approved by this permit is a 200 foot route width centered on the existing Fort Ridgely 69 kV centerline from the new substation to the existing Fort Ridgely substation including 100 feet along each side of the Roberts' north and east property lines, with the exception of the segment that would follow along 23rd North Street. A 50 foot route width centered on the existing Fort Ridgely 69 kV centerline running along 23rd North Street is approved.

The applicant has identified an alignment, shown in the attached official route map, within the approved route that minimizes potential impacts to the criteria identified in Minnesota Rule 7849.5910. The proposed alignment was evaluated by OES staff in the environmental assessment. As such this permit anticipates that the actual line placement will generally conform to this proposed alignment unless changes are requested by individual landowners or unforeseen conditions are encountered. Any alignment modifications shall have the same or fewer impacts relative to the criteria in 7849.5910 as the alignment noted in this permit.

The transmission line will be centered on a 75 foot wide right-of-way, with the exception of 23rd North Street where the existing 69 kV 50 foot right-of-way will be utilized. The permittee will construct the transmission line approximately on the centerline and within the existing easements of the existing 69 k, specifically along the portion of the route that follows 23rd North Street.

The proposed transmission line and substation will be designed to meet or exceed all relevant state and local codes, and requirements of the National Electric Safety Code, which is the utility safety standard that applies to all transmission lines. In addition, the breaker station facilities will be fenced, and access will be limited to authorized personnel. 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 August 29, 2008, and as described in the environmental assessment and findings of fact, 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 permittee shall cooperate with county and city road authorities to develop appropriate signage and traffic management during construction. The permittee will work closely with Minnesota Department of Transportation (MnDOT), Brown and Nicollet counties, and the city of New Ulm to ensure minimal disruption to area traffic.

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 within and 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. The permittee shall compensate landowners for any yard/landscape, crop damage, soil compaction, or other that may occur during construction.

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. The permittee shall contact landowners prior to entering the property or conducting maintenance along the route and avoid maintenance practices, particularly the use of fertilizer, herbicides, or pesticides, inconsistent with the landowner's or tenant's use of the land. The permittee 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, tree clearing, and other aesthetic concerns.

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.
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.** The permittee 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, specifically where the route will span the Minnesota River. The Minnesota River and other areas will be identified by the permittee in cooperation with the Minnesota Department of Natural Resources (DNR) and the U.S. Fish and Wildlife Service where bird flight diverters will be incorporated into the transmission line design to prevent large avian collisions attributed to visibility issues.

Standard transmission design will incorporate adequate spacing of conductor(s) and grounding devices. This is intended to eliminate the risk of electrocution to raptors with larger wingspans that may simultaneously come in contact with a conductor and grounding devices.

4. **Rare and Unique Resources.** The DNR indicated occurrences of four known rare species and natural communities located within or near the proposed project boundaries. Two of these rare species are rare mussels that are located in the Minnesota River. The permittee will use silt fencing or other erosion control measures when working near waterways and wetlands (i.e. the Minnesota River) to prevent sedimentation and disturbance of these areas and their inhabitants. The other two records are the Sullivant's milkweed and a mesic prairie community associated with railroad rights-of-way. The project will be designed to avoid transmission line construction within the railroad right-of-way. Should construction or encroachment of the railroad right-of-way become necessary, the permittee will perform a botanical survey. Construction and maintenance personnel will be made aware of the rare resources and plant communities during pre-construction meetings in effort to minimize possible disturbance.

5. **Accommodation of Existing and Planned Infrastructure.** The permittee is required to work with the landowners, townships, cities, and counties along the route to accommodate their concerns regarding tree clearing, distance from existing structures, drain tiles, pole depth and placement in relationship to existing roads and road expansion plans. The permittee will work with New Ulm Public Utilities during construction planning to ensure coordination with the new interconnection. The permittee will work with the city of New Ulm to reroute the bike trail during transmission line construction, as necessary.

I. Other Requirements.

1. **Applicable Codes.** The permittee shall comply with applicable 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 route 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 preceding 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.



Official Route Map



In the Matter of the Route Permit Application for a
 115/69 kV Transmission Line Rebuild from a
 Newly Proposed West New Ulm Substation to the
 Existing Fort Ridgely Substation

EXHIBIT LIST
 PUC Docket No. E-002/TL-08-956

Exhibit Number	Date	Description	eDockets
1.	August 12, 2008	Notice of Intent to File Application Pursuant to Alternative Permitting Process	<u>5423577</u>
2.	August 29, 2008	Route Permit Application	<u>5471276</u> <u>5471278</u> <u>5471702</u> <u>5471704</u> <u>5471705</u>
3.	September 15, 2008	Letter Correcting Errors in Route Permit Application and Affidavit	<u>5503452</u> <u>5503453</u> <u>5503454</u> <u>5511648</u> <u>5537094</u>
4.	September 19, 2009	Notice of Commission Meeting for Route Permit Application Acceptance Decision	<u>5514725</u>
5.	September 19, 2009	Comments and Recommendations of the Minnesota Office of Energy Security Energy Facility Permitting Staff	<u>5515166</u>
6.	October 6, 2009	Confirmation of Publication and Mailing Notice of a Submittal of an Application for a Route Permit	<u>5537052</u>
7.	October 6, 2008	Public Utility Commission Order	<u>5551195</u>
8.	October 28, 2009 October 31, 2009	Notice of Public Information Meeting	<u>5591330</u> <u>5595388</u>
9.	November 3, 2009	Published Notice of Public Information Meeting	<u>5669443</u>
10.	---	Public Scoping Comments	<u>5697702</u>

Exhibit Number	Date	Description	eDockets
11.	December 19, 2009	Environmental Assessment Scoping Decision	<u>5674506 5671117</u> <u>5671113</u>
12.	March 3, 2009	Notice of Public Hearing and Availability of Environmental Assessment and Affidavit of Mailing	<u>5802900</u>
13.	March 4, 2009	Environmental Assessment	<u>5802884</u>
14.	March 11, 2009	Published Notice of Public Hearing and Availability of Environmental Assessment and Affidavit	<u>5823389</u>
15.	March 9, 2009	Notice of Public Hearing and Availability of Environmental Assessment as Published in Environmental Quality Board <i>Monitor</i>	<u>5824747</u>
16.	March 23, 2009	Direct Testimony and Schedules of Timothy G. Rogers, Xcel Energy	<u>5829623</u>
17.	March 27, 2009	Scott Rolloff Comment Letter	<u>20094-36761-01</u>
18.	March 30, 2009	Milford Township Comment Letter	<u>20094-36761-01</u>
19.	April 6, 2009	Anderson's Comment Letter	<u>20094-36761-01</u>
20.	April 1, 2009	Chris DeVries Comment Letter	<u>20094-36761-01</u>
21.	April 6, 2009	New Ulm Public Utilities Commission Comment Letter	<u>20094-36761-01</u>
22.	April 6, 2009	Richard Runk Comment Letter	<u>20094-36761-01</u>
23.	April 6, 2009	DNR Comment Letter	<u>20094-36761-01</u>

Exhibit Number	Date	Description	eDockets
24.	April 1, 2009	March 24, 2009, Public Hearing Transcript	<u>20094-36757-01</u>
25.	April 13, 2009	Office of Administrative Hearings, Summary of Public Testimony	<u>20094-36130-01</u>

STATE OF MINNESOTA)
COUNTY OF RAMSEY)SS

AFFIDAVIT OF SERVICE

I, Robin Benson, being first duly sworn, deposes and says:

That on the 18th day of May, 2009 she served the attached

FINDINGS OF FACT, CONCLUSIONS OF LAW, AND ORDER ISSUING A ROUTE PERMIT TO XCEL ENERGY FOR THE 115/69 KILOVOLT TRANSMISSION LINE REGUILD AND SUBSTATION PROJECT.

MNPUC Docket Number: E-002/TL-08-956

XX By depositing in the United States Mail at the City of St. Paul, a true and correct copy thereof, properly enveloped with postage prepaid

XX By personal service

XX By inter-office mail

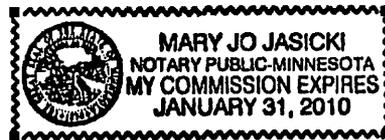
to all persons at the addresses indicated below or on the attached list:

Mike Kaluzniak
Docketing - OES
Julia Anderson - OAG
John Lindell- OAG

Robin Benson

Subscribed and sworn to before me,
a notary public, this 18th day of

May, 2009
Mary Jo Jasicki
Notary Public



10:
MN PUC

Timothy G. Rogers
Xcel
414 Nicollet Mall
Minneapolis MN 55401-1993

Burl W. Haar
MN Public Utilities Commission
Suite 350
121 7th Place East
St. Paul MN 55101-2147

20:
Dept. of Commerce

Sharon Ferguson
MN Department Of Commerce
Suite 500
85 7th Place East
St. Paul MN 55101-2198

30:
Inter-Office Mail

Julia Anderson
MN Office Of The Attorney General
1400 BRM Tower
445 Minnesota Street
St. Paul MN 55101-2131

John Lindell
OAG-RUD
900 BRM Tower
445 Minnesota Street
St. Paul MN 55101-2130

40:
Regular Postal Mail

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713 23rd North Street
New Ulm MN 56073

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Briggs and Morgan, P.A.
2200 IDS Center
80 S. Eighth Street
Minneapolis MN 55402

08-956

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Rochester, MN 55904

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New Ulm, MN 56073

Harold Runck
16509 KC Road
New Ulm, MN 56073