



BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

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

DOCKET No. E002/TL-10-249

Meeting Date: October 20, 2011.....Agenda Item #

Company: Xcel Energy
Docket No. PUC Docket Number: E002/TL-10-249
 In the Matter of the Application for a HVTL Route Permit for the
 Glencoe-Waconia 115 kV Transmission Line Upgrade.

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 HVTL Route Permit identifying specific
 routes and permit conditions for the proposed Glencoe-Waconia HVTL
 project?

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Relevant Documents (in Commission Packet).

- Xcel Energy’s HVTL Route Permit Application.....December 10, 2010.
- DOC’s Scoping Decision.....April 1, 2011.
- Environmental Assessment.....July 26, 2011.
- ALJ’s Public Hearing Summary.....September 27, 2011

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

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Documents Attached.

1. Site map illustrating the study area in which the route will be located.
2. Proposed Findings of Fact, Conclusions, Order.
3. Proposed HVTL Route Permit.

(Note: Relevant documents and additional information can be found on eDockets (E002/TL-10-249) or the PUC Energy Facilities Permitting website

<http://energyfacilities.puc.state.mn.us/Docket.html?Id=30371>)

Statement of the Issue

Should the Commission find that the Environmental Assessment (EA) and the record adequately address the issues identified in the Scoping Decision? Should the Commission issue a high voltage transmission line (HVTL) route permit identifying specific routes and permit conditions for the proposed Glencoe-Waconia HVTL Rebuild project?

Introduction

Xcel Energy (Applicant) 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. Xcel Energy provides electricity services to approximately 1.2 million customers and natural gas services to 425,000 residential, commercial and industrial customers in Minnesota. Xcel Energy Services Inc. is the service company for Xcel Energy and its personnel prepare, submit and administer regulatory applications to the Commission on behalf of Xcel Energy, including route permit applications

The Applicant applied for a high-voltage transmission line route permit to construct new and upgraded 115 kV single circuit and 115/69 kV double circuit transmission lines between the proposed Diamond Substation (to be owned and built by the city of Glencoe, Minn) in McLeod County and the existing structure #142 on line 0740, west of the Augusta Substation in Carver County. The project includes the relocation and upgrading of the Plato Substation and modifications to the existing West Waconia Substation.

Project Description

The project is located in McLeod and Carver counties, near the cities of Glencoe, Plato, Norwood Young America, and Cologne. The project consists of approximately 0.9 mile of new 115 kilovolt (kV) transmission line, 1.9 miles of new 69 kV transmission line that is capable of operating as 115/69 kV double circuit line and upgrade of approximately 20.2 miles of 69 kV transmission line to 115 kV (double circuit 115/69 kV capacity) near the cities of Glencoe, Plato, Norwood Young America and Waconia located southwest of the Twin Cities metro area. The project is approximately 28 miles in total.

The Applicants propose to construct the following facilities:

- Construct a new 115 kV Diamond Substation in Glencoe and approximately 5 miles of new 115 kV transmission line between the existing Armstrong Substation and the new Diamond Substation (While this portion of the project is included in the certificate of need proceedings, the final route will be determined and permitted through the local review process of Minnesota Rules 7850.5300).
- Upgrade approximately 4 miles of 69 kV transmission line to 115/69 kV double circuit from the proposed Diamond Substation to the existing Plato Substation.
- Expand the existing Plato Substation to upgrade the 69 kV distribution load to 115 kV, and to install a capacitor bank on the 69 kV transmission line.
- Upgrade approximately 10 miles of 69 kV transmission line to 115 kV capacity between the Plato Substation, the Young America Substation and the West Waconia Substation.
- Construct approximately 1 mile of new 115 kV transmission line along Highway 5 on the west side of the city of Norwood Young America. This new segment is needed to avoid having to build the 115 kV line into the developed areas of Norwood Young America.
- Upgrade approximately 1 mile of existing 69 kV transmission to 115 kV from the existing West Waconia Substation along Highway 5.
- Construct approximately 2 miles of new 69 kV transmission line from Highway 5 to the existing Augusta 69 kV transmission line. This section would be built to double circuit standard to accommodate a future 115 kV transmission line along with the proposed 69 kV line.
- Upgrade approximately 7 miles of existing 69 kV transmission line to 115 kV capacity from the Waconia Tap to just short of the Augusta Substation.

Regulatory Process and Procedures

Minnesota Statutes Section 216E.03, subd. 2, provides that no person may construct a high voltage transmission line without a route permit from the Commission. An HVTL is defined as a transmission line of 100 kV or more and greater than 1,500 feet in length in Minnesota Statutes Section 216E.01, subd. 4.

The proposed transmission lines in Xcel Energy's application are HVTLs and therefore a route permit is required prior to construction.

The route application was reviewed under the Alternative Permitting Process (Minn. R.7850.2800 to 7850.3900) of the Power Plant Siting Act (Minn. Stat. § 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.

Route Permit Application and Acceptance

On December 10, 2010, Xcel Energy submitted a high voltage transmission line (HVTL) Route Permit application to the Commission for the proposed transmission line upgrades to the 69 kV Glencoe to Waconia system. The docket number for the route proceedings is E002/TL-10-249.

The Commission released an order on January 14, 2011, finding the route permit application to be complete and initiating the alternative review process.

Public Information and Environmental Assessment Scoping Meeting

DOC EFP staff is responsible for conducting the environmental review for route permit applications to the Commission (Minn. Rules 7850.3700). Environmental review for a project of this size requires a public information/scoping meeting, development of a *Scoping Decision* and the preparation of an environmental assessment (EA). An EA examines the potential human and environmental impacts of a proposed project, alternative routes for the project, and potential mitigative measures.

On February 1, 2011, the DOC EFP sent notice of the place, date and times of the Initial Public Information and Scoping meeting to those persons on the General List maintained by the PUC, the agency technical representatives list and the project contact list. Additionally, on February 4, 2011, Xcel Energy mailed the notice to those persons on their property owners list and local unit of government list.

Notice of the public meeting was also published in the local newspapers.

On Tuesday, March 1, 2011, the DOC EFP staff held two public information/scoping meetings at the Clay Community Building in Norwood Young America. The meetings included two sessions, one starting at 2:00 pm and another starting at 6:00 pm. The meeting covered and fulfilled both the CN and Routing procedural requirements. The purpose of the meeting was to provide information to the public about the proposed project, to answer questions, and to allow the public an opportunity to suggest alternatives and impacts that should be considered during preparation of the environmental review document.

Approximately 35 people attended the public information and scoping meetings; 13 individuals took the opportunity to speak on the record. A court reporter was present to document oral statements. Ten written comments were received.

A variety of questions were asked and answered during the oral discussion; topics included: specifics on which lines and poles will be removed, and design/construction of any new poles; specifics on the proposed alignment; the concepts of route width and right-of-way (ROW) width; sources of power generation for this project; and timeline and milestones of the application review process.

Written comments were due no later than Wednesday, March 23, 2011.

The major areas of concern for scoping expressed during the public comment period included: health and safety issues, property values, easement plans for deconstructed areas, compensation for easements, and flexibility in siting the final alignment.

Alternative routes, alternative route segments and modifications to Xcel Energy's proposed alignment were discussed during the scoping meeting and in comments received during the scoping comment period.

Scoping Decision

The items, issues and alternatives raised during the scoping meeting and comment period were reviewed in preparation of the proposed Order on the Environmental Assessment Scoping Decision.

Two alternative route segments/alignment modifications (the Maiser Alternatives and the Waldron Alternative Route Segment), along with the typical HVTL routing impacts, were carried forward into the Scoping Decision.

A request was submitted for an evaluation of an *alternative route* and an *alternative route segment* (Kramer Alternatives) that would follow the US Highway 212 ROW from the proposed Diamond Substation to the Augusta Substation. These alternatives were not carried forward into the scoping decision because they do not meet Xcel Energy's stated current or potential future local needs of the area and will create new impacts without eliminating the need for the current 69 kV line.

The DOC released its EA Scoping Decision on April 1, 2011. The DOC EFP staff provided a Notice of Scoping Decision to all parties on the project contact list.

Alternatives Carried Forward

The Maiser Alternatives modify the proposed route in Segment 4 of the proposed route, where the existing 69 kV transmission line passes between Hydes Lake and Rice Lake; the Maiser Alternatives include three options:

Option 1 would modify the proposed route by relocating the new 115 kV HVTL to the north side of Trunk Highway (TH) 5, north of and parallel to GRE's existing 115 kV transmission line.

Option 2 consists of constructing Xcel Energy's new 115 kV transmission line as a double-circuit configuration with the existing GRE 115 kV transmission, which parallels the north side of TH 5. The new 115 kV line would utilize GRE's existing ROW, replacing the structures with double-circuit tower designs.

Option 3 consists of an alignment modification within Xcel Energy's proposed HVTL route which would shift the proposed alignment approximately 100 feet to the north, to run along the current edge of the southern road ROW for TH 5.

The Waldron alternative route segment amends a small portion (in Segment 2) of the Applicant's proposed route by re-aligning the ROW so that it continues along the south side of County Road 34, eliminating the ROW's deviation to the south, between Urban Avenue and State Highway 25/5

There was no Advisory Task Force established for this routing docket.

Environmental Assessment

Since there are two concurrent environmental reviews required for the Southwest Twin Cities 115 kV Transmission Line Upgrade to the Glencoe-Waconia 69 kV Project – one for the CN application and one for the route permit application – DOC EFP staff elected to combine the environmental review for the two applications (Minn. Rules 7849.1900). The result was a single environmental review document, an Environmental Assessment, that addresses the issues required in Minnesota Rules 7849.1500, subpart 1 and Minnesota Rules, 7850.3700, subpart 4, and as determined in the Scoping Decision of April 1, 2011.

The DOC EFP staff released the EA on July 26, 2011.

Public Hearing

EFP 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 DOC EFP staff issued a Notice of Public Hearing and Availability of the Environmental Assessment on July 26, 2011, and provided the Notice to all individuals on the project contact list. The notice of the public hearings was published on August 3, 2011, in the *Glencoe Mcleod County Chronicle*, and on August 4, 2011, in the *Norwood Young America Times* and the *Waconia Patriot*. Notice of the public hearings was also published in the *EQB Monitor* on August 1, 2011.

A combined public hearing (CN and Routing) was held on August 24, 2011, at the Clay Community Building in Norwood Young America. ALJ Richard Luis presided over the hearing; the comment period was open for written comments through September 7, 2011.

Approximately 12 members of the public attended the public hearing; three persons took the opportunity to speak on the record. Two comment letters were submitted to the ALJ during the comment period for the public hearing.

The ALJ released a Summary of Testimony and Written Comments on September 27, 2011.

Public Hearing Comments

The Applicant's oral presentation at the hearing was led by Paul Lehman, its Manager of Regulatory Administration. The Company's routing lead person on the project, Siting and Permitting Supervisor Tim Rogers, and Srinivas Vemuri, a Transmission Planning Engineer for the company, offered oral testimony to supplement their Prefiled Written Testimony in the case.

Mr. Rogers testified about the alternative routes for the line and why the Company accepted, modified, or rejected them. Specifically, Mr. Rogers talked about the Waldron Alternative suggestion, found in Segment 2 of the project. Mr. Rogers declared that the Waldron alternative “Makes sense to us and Xcel supports this alternative.”

Mr. Rogers also explained why the Company was unable to agree with the proposed options presented in the “Maiser Alternatives”. The Maiser Alternative Option 1 recommends rebuilding the line on the north side of Highway 5 between Rome Avenue and the West Waconia Substation.

Mr. Rogers explained that the Maiser Alternative Option 1 would create a “pinch point” at the location of a commercial building that distributes veterinary supplies, such that there would not be enough room to go between the building and the existing power line (owned by Great River Energy) along Highway 5.

The Maiser Alternative Option 2 requested that the proposed transmission line be constructed as a double-circuit line with the existing GRE 115 kV HVTL located on the north side of TH 5. Mr. Rogers explained that the Company cannot support this option because of the additional expense and complications/difficulties for the electrical system in handling simultaneous outages associated with the 69 kV and GRE’s 115 kV lines.

The Maiser Alternative Option 3 also asked for the Company to look at adjusting the site of the proposed line slightly to the north at another location, while staying on the south side of Highway 5. Mr. Rogers explained that the Company cannot support this option because of the conflict with Minnesota Department of Transportation’s planned expanded right-of-way on the south side of Highway 5.

Richard Stolz, a property owner in the City of Norwood Young America, expressed concern about the precise meaning of the Company’s plans to “retire “ or “deconstruct” transmission line poles on land that it owns, which poles will no longer be necessary for the newer transmission system it plans to build.

In his post-hearing submission, Mr. Rogers stated that “After further examination and consultation with the transmission engineer for this project, it is my understanding that the structures on Mr. Stolz’s property would be removed as these structures do not support a distribution circuit.” Mr. Rogers went on to comment that if the Public Utilities Commission chooses to include the Waldron Alternative Route Segment in the route, which would move the 115 kV line closer to County Road 34, the existing 69 kV structures along old County Road 34 would be removed if such structures do not support any distribution circuits

A member of the public (Loren Heupenbecker) questioned Mr. Meyer (General Manager of Glencoe Light and Power) as to whether the city of Glencoe had explored other options as sources for its loop line, and Mr. Meyer declared that, to his knowledge, there were no other options because the current feed from the west side of Glencoe is on a lateral line from the western substation.

Mr. Heupenbecker also expressed concerns about possible safety issues associated with proposed high voltage transmission lines being in close proximity to a truck storing flammable material, which he parks on his land that is in the vicinity of the proposed transmission line route. The Huepenbecker property is on the east side of Carver County Road 51, along a proposed 115/69 kV double-circuit portion of new transmission line.

Mr. Noeldner expressed concerns that the Company will run its power poles along Highway 51 in a position where the digging necessary to put the structures in place would cut or otherwise damage the tiling system that drains his fields. Mr. Noeldner owns farm property outside of Cologne, Minnesota, which property is along County Road 51 South between State Highway 5 and the community of Bongards. Mr. Noeldner's tiles lie approximately three to four feet underground and drain an area that would otherwise be a swamp, absent the tiling system. The Company's placement of structures to support the new 115kV transmission line would involve digging approximately eight to 10 feet below the surface of the ground in order to provide proper support for the structures.

Two state agencies filed written comments, the Minnesota Department of Transportation (MnDOT) and the Minnesota Department of Natural Resources (MnDNR).

MnDOT's primary concern is the safety of the transportation system and effectiveness of any operations or maintenance of the state trunk highway system, including any additional costs that may be imposed on the state trunk highway fund as a result of locating the proposed HVTL.

In specific, MnDOT is concerned particularly with the alternative alignment proposed in the Maiser Alternative, which would move the power line closer to Highway 5 than the existing 69kV line. That move would likely cause the new line to occupy the same location as a future expansion area for widening Trunk Highway 5.

The MnDNR expressed concerns in several areas, including the need, type and placement of Swan Flight Diverters (SFD), potential for soil erosion and runoff, vegetation management, impacts to wetlands, and the age of the Natural Heritage Information System data reviewed for this project.

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 (Minn. Stat. § 216E and Minn. R. 7850.4000). The law also allows the Commission to place conditions on high voltage transmission line permits (Minn. Stat. § 216E.03 and Minn. R. 7850.4600).

EFP Staff Analysis and Comments

EFP staff has prepared the attached proposed Findings of Fact, Conclusions of Law, and Order and Route Permit. The Findings show that the alternative permitting process has been conducted in accordance with Minn. R. 7850.2800 to 7850.3900, identify route impacts and mitigation measures, and make conclusions of law and order. The proposed route permit includes measures

to ensure the line is constructed in a safe, reliable manner and that impacts are minimized or mitigated.

In weighing the differences of the routes for the proposed project, staff was guided by the state's policy of choosing locations that minimize adverse human and environmental impact while insuring continuing electric power system reliability and integrity (Power Plant Siting Act, Minn.Stat. § 216E).

EFP staff reached its conclusions and recommendations based on the analysis in the EA and the comments received in this record.

The record supports several specific items that merit consideration relative to alternative route segments and special conditions in the HVTL Route Permit for the Glencoe-Waconia HVTL project. These items include:

Waldron Alternative Route Segment. As noted earlier, the Waldron alternative route segment amends a small portion (in Segment 2) of the Applicant's proposed route by re-aligning the ROW so that it continues along the south side of County Road 34, eliminating the ROW's deviation to the south, between Urban Avenue and State Highway 25/5.

The re-alignment of the transmission line would relocate the ROW through the same five parcels in which the 69 kV line currently passes; no new landowners would be impacted. Moving the line to each parcel's northern boundary with the ROW for County Road 34 will increase the distance of the line from residences and decrease the area of deciduous forest impacted; however, the potential impact to wetlands would increase from approximately 0.18 acres to approximately 0.77 acres.

The estimated additional cost for the Waldron Alternative is \$25,000.00.

Xcel Energy supports this alternative route segment. EFP staff believes that the Waldron Alternative Route Segment is a reasonable request since it will lessen the impact to the existing landowners and realign existing infrastructure (HVTL and County Road 34); this alternative route segment has been incorporated into the proposed HVTL Route Permit (Section III. Segment 2).

Maiser Alternative Route Segments. As noted earlier, the residents around Rice Lake requested the evaluation of three alternatives to a portion of the proposed route, between Rome Avenue and the West Waconia Substation, along the northwest shore of Rice Lake.

Option 1 would require 50 feet of new ROW. This additional ROW would impact seven parcels; five of which are developed. There is a pinch point distance of 39 feet between a veterinary office (parcel ID 095100180) and the existing GRE line. This distance of 39 feet is not wide enough to fit the new 50 foot ROW for the 115 kV line north of the GRE line and south of the veterinary office.

Xcel Energy does not support this alternative. EFP staff does not believe that this option is a reasonable alternative to the proposed route due to the restriction between the existing GRE 115 kV HVTL and developed properties to the north. This option has not been incorporated into the proposed HVTL Route Permit.

Option 2 consists of constructing Xcel Energy's new 115 kV transmission line as a double-circuit configuration with the existing GRE 115 kV transmission line, which parallels the north side of TH 5. This option would utilize GRE's existing ROW, replacing the structures with double-circuit tower designs. GRE's current ROW is 60 feet; the double-circuit configuration would require a ROW width of 75 feet, resulting in the need for an additional 15 feet of ROW for this option. This additional ROW would impact seven parcels; five of which are developed. Components of this option would include: 3 additional heavy angle corner structures to cross the highway; 10 double circuit structures, 800 feet of additional conductor, 4,000 feet of additional shield wire, new insulators for the GRE line, and the removal of the GRE structures and transfer of the GRE conductors. The estimated additional cost for this option is \$670,000.00.

Xcel Energy does not support this option because of the additional expense and complications/difficulties for the electrical system in handling simultaneous outages associated with the 69 kV and GRE's 115 kV line.

Because the proposed route through this area is a rebuild of an existing 69 kV transmission line, the potential for new impacts to the existing property owners and the environment is expected to be negligible. Xcel Energy currently has easements supporting the existing 69 kV line along this route; no new ROW would be created with the proposed route. EFP staff does not believe that this option is reasonable; this option has not been incorporated into the proposed HVTL Route Permit.

Option 3 consists of an alignment modification within Xcel Energy's proposed HVTL route which would shift the proposed alignment approximately 100 feet to the north, to run along the current edge of the southern road ROW for TH 5.

Trunk Highway 5 runs in a southwest-northeast direction between TH 7 and TH 212 in Carver County. At present, TH 5 is a four-lane divided arterial from I-494 to TH 41; however, just west of TH 41 it is a two-lane, undivided arterial that extends through Victoria and Waconia until it connects with TH 212 in Norwood Young America, a distance of 20 miles.

The *Trunk Highway 5 Corridor Study: From TH41 to TH212*, was undertaken by Carver County and the cities of Victoria and Waconia, in collaboration with MnDOT and the communities along the corridor, in an effort to guide future planning and improvements along TH 5 from TH 41 in Chanhassen to TH 212 in Norwood Young America. Contained within this study, and verified through conversation with MnDOT, the EFP staff has become aware of MnDOT's desire to preserve land along the southern ROW of TH 5 for future expansion. The current concept would extend the TH 5 ROW 90 feet to the south. This would place the TH 5 ROW 16 feet north of Xcel Energy's current 69 kV line, which is the proposed ROW for the new 115 kV HVTL.

Xcel Energy stated that it could not support the Maiser Alternative Route Segment Option 3 due to the conflict with the MnDOT and the TH 5 expansion. Given the MnDOT plans for expansion in this area, EFP staff does not believe that this option is reasonable; this option has not been incorporated into the proposed HVTL Route Permit.

Swan Flight Diversers. The Minnesota Department of Natural Resources (MnDNR) has expressed a desire to be consulted on the need, type and placement of swan flight diversers (SFD) along the route, noting special concern in the areas between Hydes and Rice Lake.

EFP staff believes that consultation with the MnDNR on the need, type and placement of SFDs along the approved route, prior to the Applicant’s submittal of the final Plan and Profile to the Commission, is a reasonable request and has incorporated it into the proposed HVTL Route Permit (Section V. Item 2).

Areas of Deconstruction of 69 kV Line. In those areas where the existing 69 kV line is to be deconstructed, the former 69 kV transmission line structures (i.e., poles/towers) that do not support a distribution circuit will be removed. If an existing 69 kV transmission structure has distribution underbuild, then the structure will remain in place, but would be “topped off” (the top portion of the pole that held the transmission conductors would be removed).

This has been incorporated into the proposed HVTL Route Permit (Section V. Item 3).

Natural Resource Heritage Information System. The Natural Resource Heritage Information System date review was conducted during the Applicant’s initial information gathering efforts in October 2009; the MnDNR has requested that this analysis be updated since the review is greater than one year old.

This has been incorporated into the proposed HVTL Route Permit (Section V. Item 4).

Based on the analysis above, EFP staff makes the following recommendation.

Commission Decision Options

A. Approve and adopt the Findings of Fact, Conclusions of Law and Order for the Xcel Energy’s Southwest Twin Cities Glencoe-Waconia HVTL project (PUC Docket No. E002/TL-10-249) which:

1. Determines that the environmental assessment and record created at the public hearing address the issues identified in the EA Scoping Decision;
2. Designates the proposed HVTL (to include the Waldron Alternative Route Segment) route and relocation/up-grade of the Plato substation as the routes/sites for the construction/implementation of the Glencoe-Waconia HVTL project and associated facilities; and
3. Issues a HVTL Route Permit, with appropriate conditions, to Xcel Energy.

B. Amend the Findings of Fact, Conclusions and Order and Route Permit as deemed appropriate.

D. Make some other decision deemed more appropriate.

EFP Staff Recommendation: Staff recommends Option A.

Site Map Illustrating the Study Area

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Proposed Findings of Fact, Conclusions, Order.

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Proposed HVTL Route Permit.