414 Nicollet Mall
Minneapolis, Minnesota 55401-1993

March 28, 2011

Bill Storm
Department of Commerce, Office of Energy Security
85 7th Place East, Suite 500
St. Paul, MN 55101

RE: SOUTHWEST TWIN CITIES 115 KV TRANSMISSION LINE UPGRADES TO THE GLENCOE – WACONIA 69 KV SYSTEM
DOCKET NO. E002/TL-09-1390

Dear Mr. Storm:

Northern States Power Company, a Minnesota corporation, ("Xcel Energy") provides the following comments regarding two route alternatives along U.S. Highway 212 that were proposed during the Environmental Assessment scoping process for the Southwest Twin Cities 115 kilovolt ("kV") Transmission Line Upgrades to the Glencoe to Waconia 69 kV System project ("Project"). Xcel Energy evaluated these two route alternatives, and other route alternatives that utilize Highway 212, and has concluded that these route alternatives are not reasonable alternatives to the proposed Project because (1) they are not well suited to meet the area's future electrical needs (2) they cost more than the proposed Project, and (3) the routes are inferior to the proposed route with respect to the statutory and rule routing criteria.

A. Proposed Project

As proposed for the Route Permit proceeding, the Project includes construction of approximately 0.9 mile of new 115 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 upgrades to approximately 20.2 miles of 69 kV transmission line to 115 kV or 115/69 kV double circuit near the cities of Glencoe, Plato, Norwood Young America and Waconia located southwest of the Twin Cities metro area. The proposed route for the Project primarily follows existing transmission line corridors with connections at several existing substation locations. The Route Permit proceeding does not include the proposed Diamond Substation and the 5 miles of new 115 kV line that will be constructed by City of Glencoe to connect the Diamond Substation to the existing Armstrong Substation. These new facilities are included in the Certificate of Need Proceeding.

B. Need for the Proposed Project

The proposed Project is needed to maintain sufficient voltage levels at the City of Glencoe when the McLeod – Glencoe 69 kV transmission line is not in-service, to prevent overloading in the region during this contingency, and to improve the reliability of the existing 69 kV system in the area.

Specifically, the Project is needed to prevent significant low voltage and line overload conditions when the City of Glencoe is served from the Carver County Substation, during loss of the McLeod – Glencoe 69 kV line. The Project eliminates the low voltage conditions at the Glencoe Substation by providing a second source to the City of Glencoe from the West Waconia Substation.

In addition, the Project eliminates future low voltage conditions at the St. Bonifacius and the West Waconia substations by providing a new source into the region from the McLeod Substation from the east.

The Project would replace existing 69 kV transmission facilities that have been a source of poor reliability due to their age. The Carver County – Lester Prairie – Helen 69 kV transmission line was built in 1949 and has been a source of poor reliability due to the age of the conductors. Although the proposed Project would not result in a rebuild of this entire line, the Project would substantially improve reliability for the Plato area by converting portions of the Carver County – Lester Prairie – Helena line to 115 kV and serving the Plato load from the new 115 kV line. The Project would also improve reliability to Young America because it would significantly reduce exposure of this load to line outages by removing the 69 kV lines connecting the Young America Substation to the Plato and Waconia Substations.

C. Highway 212 Route Alternatives Proposed during Environmental Assessment Scoping Process

During the Environmental Assessment scoping process for the Project, two route alternatives were proposed that would follow U.S. Highway 212 ("Highway 212") instead of the existing 69 kV lines in the area. The first route alternative starts at the Diamond Substation and travels south to Highway 212 and follows this highway east until it reaches County Road 43 where it turns north and ends near the Augusta Substation at Structure #142 ("Alternative 212A"). Alternative 212A is shown on Map 4. The second route alternative starts at the Diamond Substation and travels south to Highway 212. The route follows Highway 212 east until it reaches State Highway 25. The route then follows State Highway 25 north to connect to the proposed route near the intersection of Highway 25/5 and County Road 34 near Norwood Young America ("Alternative 212 B"). Alternative 212B is shown on Map 1.

Xcel Energy has performed a preliminary engineering analysis of these two route alternatives and determined that if the Project were built on either of these proposed alternatives, the Project needs would not be addressed. To serve the needs identified in part B above, construction of a new substation and other facilities would be required.

D. Additional Highway 212 Alternatives Analyzed by Xcel Energy

In addition to Alternatives 212A and 212B, Xcel Energy also analyzed other alternatives that utilize the Highway 212 corridor ("212 Alternatives"). Maps showing all of these 212 Alternatives, including the additional facilities are enclosed and a description of these 212 Alternatives is provided below.

For purposes of discussing the 212 Alternatives, the Project has been divided into a western portion (Diamond Substation to Young America Substation) and an eastern portion (Young America Substation to Structure #142). Dividing the Project in this manner facilitates a comparison between the proposed Project and the 212 Alternatives because Alternative 212B ends at the Young America Substation. Facilities denoted as a "common facility" are portions of the proposed Project that would need to be constructed even if a 212 Alternative is selected.

1. Western Portion of Project – Diamond Substation to Young America Substation

Option 1(Diamond Substation to North of Young America) (similar to Alternative 212B) as shown on Map 1

- Rebuild approximately 3.6 miles of existing 69 kV transmission line (Line #0771) from the Diamond Substation to the Plato Substation to higher capacity than 69 kV (common facility but proposed Project calls for line to be rebuilt as a double circuit 115/69 kV line);
- Construct a new 115 kV line along Highway 212 from the Diamond Substation to a new substation near the City of Plato;
- Construct Plato II Substation, a new 115-12.5 kV substation along Highway 212 near the City of Plato (common facility but proposed Project calls for this new Plato Substation to be located 250 to 500 feet southwest of existing Plato Substation);
- Install a new capacitor bank at the existing Plato Substation (common facility);
- Construct new 12.5 kV distribution feeders in the Plato area to move load off of the old 69 kV Plato Substation and to the Plato II Substation;
- Construct a new 115 kV line along Highway 212 from Plato II until the intersection of Highway 212 and State Highway 25;

- Construct a new 115 kV line along State Highway 25 to the intersection of State Highway 25 and near 118th Street;
- The existing 69 kV line from the existing Plato 69 kV Substation to the Young America Substation would remain in place but not left normally connected.

Option 2 (Diamond Substation to Carver County Substation) as shown on Maps 2 and 3

- Rebuild approximately 3.5 miles of existing 69 kV transmission line (Line #0771) from the Diamond Substation to the Plato Substation to higher capacity than 69 kV (common facility but proposed Project calls for line to be rebuilt as a double circuit 115/69 kV line);
- Construct a new 115 kV line along Highway 212 from the Diamond Substation to a new substation near the City of Plato, Plato II;
- Construct Plato II Substation, a new 115-12.5 kV substation along Highway 212 near the City of Plato (common facility but proposed Project calls for this new Plato Substation to be located 250 to 500 feet southwest of existing Plato Substation);
- Install a new capacitor bank at the existing Plato Substation (common facility);
- Construct new 12.5 kV distribution feeders in the Plato area to move load off of the old 69 kV Plato Substation and to the Plato II Substation;
- Construct a new 115 kV line along Highway 212 from Plato II through the City of Norwood Young America to the Carver County 115 kV Substation; and
- The existing 69 kV line from the existing Plato 69 kV Substation to the Young America Substation would remain in place but not left normally connected.

2. Eastern Portion of the Project-Young America Substation to Structure #142

Given that there is an existing 115 kV line between the Carver County Substation and the Scott County Substation, Xcel Energy believes that a new 115 kV line along Highway 212 in the same area as the existing line is redundant. Therefore, the Project proposed in the application is the preferred option for the eastern portion of the Project area. However, if Highway 212 right-of-way is to be used, the following options can be considered:

Option 3 (Carver County Substation to Structure #142) as shown on Map 4

- Construct 11 miles of new 115 kV line along Highway 212 from the Carver County Substation to County Road 43;
- Construct a new 115/69 kV substation ("Augusta II") near County road 43 and Highway 21 junction;
- Construct 1 mile of new 69 kV line from the new Augusta II Substation to Structure #142; and

- The existing 69 kV Line #0740 from the Carver County substation to the Augusta Substation would remain in place but not left normally connected.

Option 4(A) (West Waconia Substation to Structure #142) as shown on Map 3

- Construct approximately 2 miles of new 69 kV line (capable of 115/69 kV double circuit) from West Waconia substation to the existing Carver County – Augusta 69 kV line;
- Rebuild 7 miles of existing 69 kV Line #0740 to 115 kV from this location to towards Augusta Substation ending at Structure #142; and
- The existing 69 kV Line #0735 from the Young America Substation to the West Waconia Substation would remain in place but not left normally connected.

Option 4(B) (Carver County Substation to Structure #142) as shown on Map 2

- Rebuild 8.5 miles of 69 kV Line #0740 between Carver County and Augusta Substations to 115 kV and operate it at 69 kV; and
- Upgrade Great River Energy's 2.5 mile 115/69 kV double circuit line, from Carver County substation, to 115/115 kV double circuit.

E. Evaluation of the 212 Alternatives

Xcel Energy analyzed the 212 Alternatives described above. Xcel Energy concluded that the 212 Alternatives are inferior to the proposed Project as (1) they are not well suited to meet the area's future electrical needs, (2) they cost more than the proposed Project, and (3) the routes are clearly inferior to those proposed route with respect to the statutory and rule routing criteria.

1. Proposed Project Allows for Expansion to Meet Future Demand

While the proposed 212 Alternatives could be configured to meet the current identified Project needs, the proposed Project is better suited to meet anticipated future needs in the Project area.

Xcel Energy selected the West Waconia Substation is the preferred termination point for the proposed 115 kV line because the West Waconia Substation is envisioned to be future 345/115 kV source, that would provide voltage support for the Project area, due to its proximity to the existing 230 kV line between McLeod and Blue Lake. Terminating the new 115 kV line from Diamond Substation into the Carver County Substation is less desirable as this substation is not considered to be a good source for future growth in the area.

In addition, it is anticipated that load growth near the Lester Prairie Substation or other substations served by the 69 kV system could require a future new 115/69 kV

connection in the Project area. The proposed Project better enables such a future connection as it leaves room in the new Plato Substation for a new 115/69 kV transformer. Also, under the proposed Project, a double circuit 115/69 kV line runs through the Plato Substation making it easier to establish a future 115/69 kV connection to the east without significant transmission additions. In comparison, routing the new 115 kV transmission line along Highway 212 would require a new substation near the City of Plato and possible future transmission lines connecting the proposed 115 kV to the existing Plato Substation to establish a new 115/69 kV connection.

If future demand in the Project area requires that the Young America Substation be upgraded from 69 kV to 115 kV, the close proximity of the proposed route to the Young America Substation enables a short connection between the new 115 kV line and the upgraded substation. Alternative 115 kV line along Highway 212 is significantly further south of the existing Young America Substation than the proposed route. As a result, if the Young America Substation is converted, additional transmission line or distribution line upgrades may be required to complete this conversion.

In summary, the proposed route for the Project runs through all the existing load serving substations (Plato, Young America, Augusta), thereby requiring minimal transmission additions for future load growth in the area. Following Highway 212 would result in the new 115 kV line being away from all the existing loads, thereby reducing the future utility of the line. As load increases, significant transmission and/or distribution additions will be needed to meet future needs if the 212 Alternatives are selected.

2. 212 Alternatives Cost Estimates

Xcel Energy has calculated high level cost estimates for the 212 Alternatives. To enable these costs to be compared to the proposed Project, west route options were combined with east route options.

Route	**Total Miles**	**Total Cost (millions)[1]**
Proposed Project	24.5	$25.6
Alternative 212A (as proposed in Scoping comments)	Does not meet Project needs	
Alternative 212B (as proposed in Scoping	Does not meet Project needs	

[1] These cost estimates do not include costs for the proposed Diamond Substation and the 5 miles of new 115 kV line that will be constructed by City of Glencoe to connect the Diamond Substation to the existing Armstrong Substation.

comments)		
Option 1 and Proposed Project (Map 1)	27.49	$25.9
Option 2 & 3 (Map 4)	25.34	$30.8
Option 2 & 4A (Map 3)	25.24	$26.0
Option 2 and 4B (Map 2)	26.26	$26.3

As shown in the above table, the 212 Alternatives are between $0.3 and $5.2 million more expensive than the proposed Project.

3. *Routing Considerations*

From the routing perspective, Xcel Energy believes that the proposed route better satisfies the statutory and rule routing criteria set forth in Minn. Stat. § 216E.03, subd. 7 and Minn. R. 7850.4100. The proposed route for the Project primarily follows existing transmission line corridors and requires acquisition of only about 2.85 miles of new right-of-way. In contrast, depending on the configuration, the 212 Alternatives would require acquisition of between 12 and 21 miles of new transmission line right-of-way. The table below shows the new right-of-way requirements for the different 212 Alternatives.

Description	**Proposed Route**	**Option 1 & Proposed Route (Map 1)**	**Option 2 & 3 (Map 4)**	**Option 2 & 4A (Map 3)**	**Option 2 & 4B (Map 2)**
Total affected miles of ROW	24.50	27.49	25.34	25.24	26.26
New ROW miles	2.85	12.63	21.83	13.58	11.73
Modified ROW miles	21.65	14.86	3.51	11.66	14.53
Rebuilt 69 kV miles	--	10.52	3.51	3.51	3.51
New 69 kV miles	--	--	1.00	--	--
Rebuilt 69 kV to 115 kV miles	21.65	4.34	--	8.15	7.01
New 115 kV miles	2.85	12.63	20.83	13.58	11.73
Upgraded 115 kV miles	--	--	--	--	4.01

This new right-of-way will result in impacts to new landowners and environmental resources. In addition, while new landowners will be impacted by the new right-of-way along Highway 212, landowners along the existing 69 kV transmission line will still have visual impacts as portions of this line will still need to be rebuilt and other portions remain in place but not left normally connected.

In addition, the 212 Alternatives follow Highway 212 which runs through the center of the City of Norwood Young America and along the edges of the cities of Plato and Cologne. Thus, these alternatives could present routing challenges given the narrow width of the right-of-way between Highway 212 and existing residential and commercial buildings.

Xcel Energy also conducted a preliminary assessment environmental analysis of the 212 Alternatives. This preliminary environmental assessment found that potential environmental and cultural resource issues are comparable for the proposed route and the 212 Alternatives. The initial assessment indicates that the distribution of wetlands along the proposed route and the 212 Alternatives are similar in the quantity and quality of potential wetland impacts. However, wetland crossings along the 212 Alternatives would constitute new wetland impacts and thus would add to the overall quantity of wetland impacts because the wetland impacts of the proposed route would not be eliminated. Likewise, while the distribution of cultural resource sites is comparable between the proposed route and the 212 Alternatives, the 212 Alternatives would likely cross lands that have not been previously disturbed or adequately surveyed for cultural resources.

Conclusion

Based on its initial evaluation, Xcel Energy believes that none of the 212 Alternatives that were examined are feasible and prudent alternatives to the proposed Project.

Please call Tim Rogers at 612-330-1955 if you have any questions.

Sincerely,

s/Timothy G. Rogers

Timothy G. Rogers
Supervisor, Siting and Permitting

s/Paul J Lehman

Paul J Lehman
Manager, Regulatory Administration

Enclosure

cc: Project Service List

Proposed Xcel Energy Southwest Twin Cities
Glencoe - Waconia Transmission Line Rebuild Project

Greater SW Minneapolis Metro, Minnesota

OPTION 1

Rebuild 69kV Line

New 115kV Transmission

Continuation of Proposed Route

New Plato II 115 kV Substation

Diamond Substation

Plato Substation

West Waconia Substation

Young America Substation

Carver Substation

Structure 142

Augusta Substation

Bergen Twp

Camden Twp

Waconia Twp

Laketown Twp

Helen Twp

Young America Twp

Benton Twp

Dahlgren Twp

MCLEOD CO.

CARVER CO.

Waconia

Glencoe

Plato

Hamburg

Norwood Young America

Cologne

Lake Waconia

Eagle Lake

Hydes Lake

Rice Lake

Tiger Lake

Reitz Lake

Piersons Lake

Lake Auburn

Sixmile Creek

Miller Lake

Maria Lake

MN Hwy 5

MN Hwy 25

MN Highway 284

County Hwy 51

US Hwy 212

SR 5

W Railroad St

Glencoe Municipal Airport

Island View Golf Club

Dahlgreen Golf Club

Data Source(s): MN LMIC (2010); USGS; ESRI (2008); Xcel Energy (2009/2010); and Westwood (2009/2010); Ventyx Velocity Suite (2011); ESRI World Street Map (2010).

Proposed Route
Hwy 212 Alternative (Option 1)
Existing Transmission Lines
Substations
Railroad Crossings
Municipalities
Townships
Counties
Railroad
Highway

N W E S

0 4,000 Feet

Map 1
Highway 212 Route Alternatives

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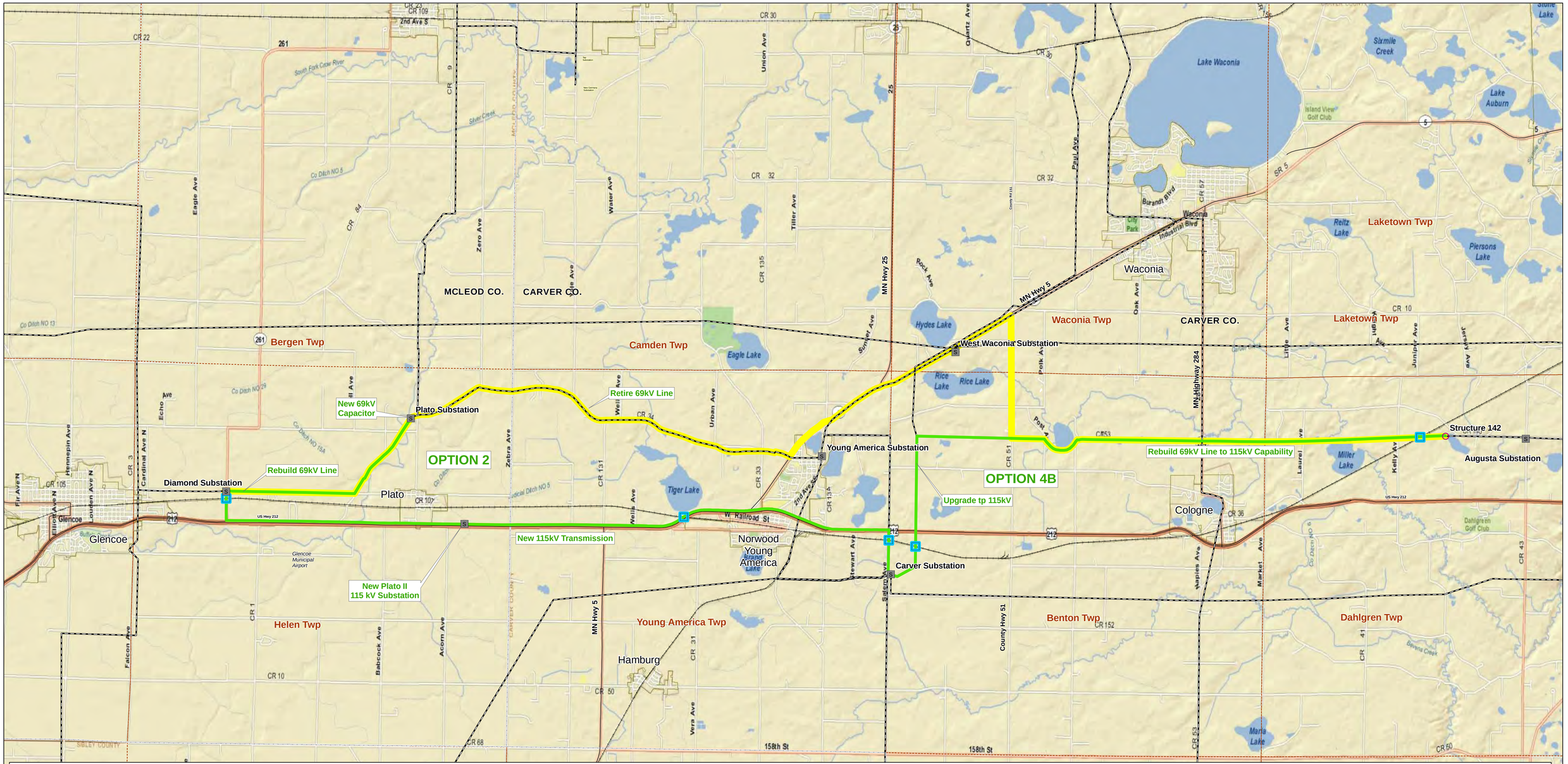
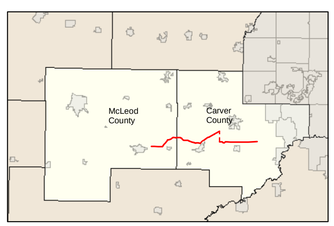


Proposed Xcel Energy Southwest Twin Cities
Glencoe - Waconia Transmission Line Rebuild Project

Greater SW Minneapolis Metro, Minnesota

- Proposed Route
- Hwy 212 Alternative (Option 2 & Option 4B)
- Existing Transmission Lines
- Substations
- Railroad Crossings
- Municipalities
- Townships
- Counties
- Railroad
- Highway

Data Source(s): MN LMIC (2010); USGS; ESRI (2008); Xcel Energy (2009/2010); and Westwood (2009/2010); Ventyx Velocity Suite (2011); ESRI World Street Map (2010).



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Map 2
Highway 212 Route Alternatives

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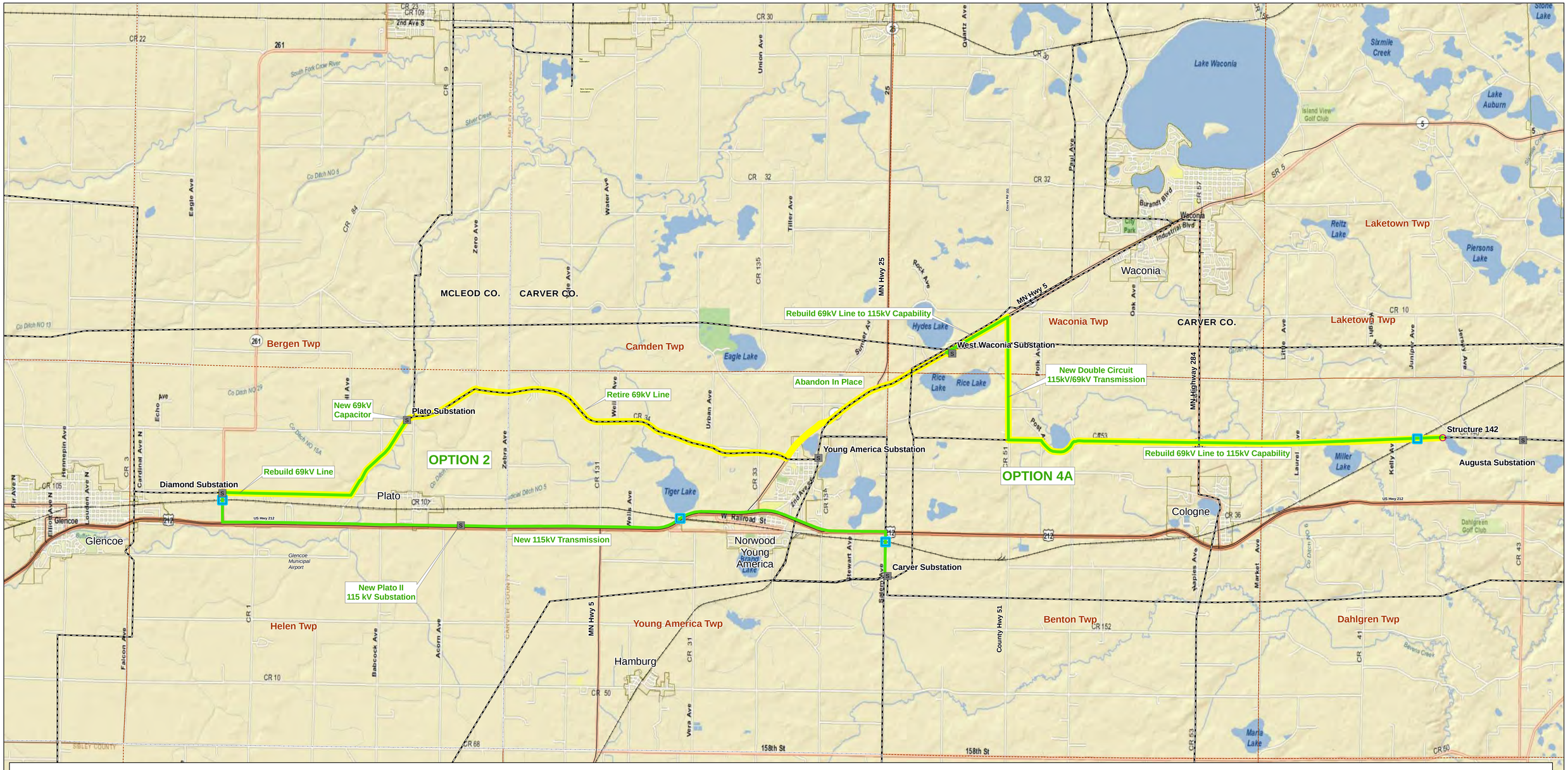

Proposed Xcel Energy Southwest Twin Cities
Glencoe - Waconia Transmission Line Rebuild Project

Greater SW Minneapolis Metro, Minnesota

Data Source(s): MN LMIC (2010); USGS; ESRI (2008); Xcel Energy (2009/2010); and Westwood (2009/2010); Ventyx Velocity Suite (2011); ESRI World Street Map (2010).

Map 3
Highway 212 Route Alternatives

Map Document: (P:/20091075/gis/RPA/West_Section/110323/20091075Wproj/3D_Map3.mxd)
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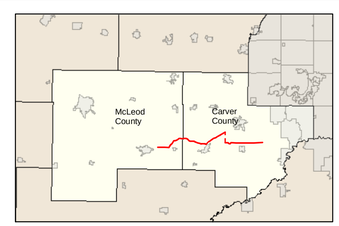
Proposed Xcel Energy Southwest Twin Cities
Glencoe - Waconia Transmission Line Rebuild Project

Greater SW Minneapolis Metro, Minnesota

- Proposed Route
- Hwy 212 Alternative (Option 2 & Option 3)
- Existing Transmission Lines
- Substations
- Railroad Crossings
- Municipalities
- Townships
- Counties
- Railroad
- Highway

Data Source(s): MN LMIC (2010); USGS; ESRI (2008); Xcel Energy (2009/2010); and Westwood (2009/2010); Ventyx Velocity Suite (2011); ESRI World Street Map (2010).



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Map 4
Highway 212 Route Alternatives

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