

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

**In the Matter of the Application by Xcel
Energy for a Route Permit for the
Hampton-Rochester-La Crosse 345-kV
Transmission Line Project**

**POST-HEARING BRIEF
OF ORONOCO TOWNSHIP**

Intervenor Oronoco Township respectfully submits this Post-Hearing Brief in support of its argument that either the North Route, Route 3A, or the “Oronoco Preferred Route,” Exhibit 90, should be selected as the final route for Applicant Xcel Energy’s (“Applicant”) CapX2020 Hampton–Rochester–La Crosse 345-kV Transmission Line Project (“Project”).

INTRODUCTION

On June 20, 21, and 24, 2011, an evidentiary hearing was held in the above-captioned matter before the Honorable Kathleen D. Sheehy, Office of Administrative Hearings (“OAH”) of the State of Minnesota for the Public Utilities Commission (“Commission”), to determine the final route for the Project. At the hearing, three primary routes were under consideration: (1) the Modified Preferred Route, Route 3P, which cuts through Oronoco Township in Olmsted County; (2) the North Route, Route 3A, which primarily crosses agricultural land in Wabasha County; and (3) the Oronoco Preferred Route, Exhibit 90, which was proposed by Oronoco Township and generally follows the western end of the North Route and the eastern end of the Modified Preferred Route.¹

¹ Oronoco Township more specifically defines the Oronoco Preferred Route as:

Following the Modified Preferred Route in all respects through and into the Highway 52 corridor until just south of Zumbrota, then in an easterly direction following the North Route until the North Route intersects with the Modified Preferred Route near Highway 14, west of Weaver, then

The North Route should be selected as the final route for the Project because it will have the least impacts on humans and the environment. If the North Route is not selected, the Oronoco Preferred Route should be selected, since it resolves some of the conflicts between the Modified Preferred Route and the North Route.

ARGUMENT

I. THE APPLICANT HAS NOT DEMONSTRATED THAT THE MODIFIED PREFERRED ROUTE IS SUPERIOR TO EITHER THE NORTH ROUTE OR THE ORONOCO PREFERRED ROUTE.

While the Applicant has labeled the route that cuts through Oronoco Township as its Modified Preferred Route, the Applicant admittedly does not have any strong reasons for doing so. Thomas Hillstrom, the Applicant's permitting leader for the Project, was responsible for overseeing the routing process and preparing the permit application. (Hr'g Tr., vol. 1, 9:12-16 (June 20, 2011).) In his written testimony, Mr. Hillstrom indicated that the North Route, the Modified Preferred Route, and a third route analyzed by the Applicant were compared, but "this comparison did not yield sufficient reason to eliminate any of these three Zumbro River crossings." (Direct Testimony of Tom Hillstrom ("Hillstrom Direct"), 9:25-26 (Apr. 18, 2011).) Because the data "leaned slightly toward the White Bridge Road crossing," the Applicant deemed this crossing part of its Modified Preferred Route. (Id. at 9:26-10:2.)

Mr. Hillstrom's testimony at the evidentiary hearing confirmed that the Applicant does not have a strong preference as to which route is selected as the final route, and importantly, that the Modified Preferred Route is not superior to the other proposed routes. When questioned at the hearing about the differences among the routes, Mr. Hillstrom stated,

following the Modified Preferred Route to its conclusion at the crossing of the Mississippi River near Alma, Wisconsin.

(See Ex. 71 (defining the Alternative Modified Preferred Route—i.e., the Oronoco Preferred Route—in Oronoco Township's Information Request Set I to the Applicant.)

In this case we had three different routes in the same general area, and there wasn't a clear superior one. They all stacked up fairly evenly, and there wasn't a big enough difference in the data to justify eliminating any one of them.

* * *

Again, like I said, the data does not show that any one of these routes is head and shoulders above the others.

(Hr'g Tr., vol. 1, 121:15-19; 121:25-122:2 (emphasis added).)

The hearing was clearly the time for the Applicant to inform the Court if the Modified Preferred Route was more appropriate or superior to the other routes. The language consistently used by the Applicant's witnesses certainly indicates an ambivalent attitude on the part of the Applicant about the routes considered. It seems as though because the law required the Applicant to pick a preferred route, it did so. But the truth is, the Applicant did not enunciate any particular reason for the choice of the Modified Preferred Route over any other route. A fair reading of the Applicant's testimony makes clear that the Applicant really does not have a preference as to which particular route is selected as the final route.

On behalf of the Applicant, Mr. Hillstrom did state, "Our -- our preference is to get the route that has the least impact on people and the environment. And that's, I think, what this proceeding is all about." (Id. at 116:18-21.) Mr. Hillstrom also correctly noted that, "Ultimately, the route for this project will be decided by the commission." (Id. at 11:2 (emphasis added).) Oronoco Township agrees with the Applicant on these points, which is why it is advocating for placement of the final route on either the North Route or the Oronoco Preferred Route. (See Exhibit 90.) Placement of the final route on the North Route will have the least impacts on humans and the environment. If the North Route is not selected, the Oronoco Preferred Route should be selected as the final route for the Project, since it will resolve some of the conflicts that exist between the Modified Preferred Route and the North Route. Additionally,

since the Oronoco Preferred Route consists of route segments considered by the Applicant and included in the Environmental Impact Statement, the Court has the authority to recommend the Oronoco Preferred Route as the final route, and the Commission has the authority to select the Oronoco Preferred Route as the final route. (See Hr'g Tr., vol. 1, 43:20-23.)

II. AN ANALYSIS OF THE FACTORS IN MINNESOTA RULE 7850.4100 DOES NOT FAVOR PLACEMENT OF THE FINAL ROUTE ALONG THE MODIFIED PREFERRED ROUTE.

Minnesota Rule 7850.4100 guides the Court's recommendation of the final route to the Commission. Rule 7850.4100 specifically lists the 14 factors that shall be considered "[i]n determining whether to issue a permit for . . . a high voltage transmission line," such as this Project. These 14 factors, some of which are relevant to these proceedings and some of which are not, are listed and addressed below. When the factors are considered in light of the routes proposed, they clearly do not favor placement of the final route along the Modified Preferred Route.

A. Effects on Human Settlement, Including, but not Limited to, Displacement, Noise, Aesthetics, Cultural Values, Recreation, and Public Services.

1. *Placement of the Final Route Along the Modified Preferred Route Will Cause the Greatest Impact on Human Settlement.*

While the Applicant allegedly looked for a route that had the least impact on people and the environment, the Modified Preferred Route, which the Applicant ultimately selected, has the greatest impact on human settlement. Mr. William Smith, expert witness for Oronoco Township,² demonstrated through his oral and written testimony that a greater number of homes and structures are impacted along the Modified Preferred Route than along the North Route. Mr.

² Mr. Smith is employed by Biko Associates, Inc., a firm which provides professional consulting services in land use and transportation planning, urban design, and landscape architecture. (Direct Testimony of William P. Smith ("Smith Direct"), 1:8-9 (May 20, 2011).) He is the principle in charge of the firm's planning studio. (*Id.* at 1:10.)

Smith noted that the Modified Preferred Route will impact a total of eight structures (three residences and five residential out-buildings) within 75 feet of the centerline of the 150 foot right-of-way, whereas only one structure (a non-agricultural industrial building) will be impacted by the North Route. (Smith Direct, 14:3-7, Ex. 3.) Because these structures are located within the right-of-way, they will have to be acquired by the Applicant in order to complete the Project. (Id. at 14:9-12.) If the Modified Preferred Route is selected as the final route, more homes will be destroyed and more families will be displaced than if the North Route is selected. The Applicant's testimony supports and confirms this fact. According to the Applicant, the number of homes within 500 feet of the centerline of the Modified Preferred Route at the White Bridge Road Zumbro River crossing (30 homes) is greater than the number of homes located within 500 feet of the centerline of the North Route at the North Zumbro River crossing (26 homes). (Ex. 71.)

Mr. Jeffrey S. Broberg,³ expert witness for Oronoco Township, also testified that the population density at the White Bridge Road crossing on the Modified Preferred Route is higher than any other route considered. (Broberg Direct, 5:14-16; 11:4-6.) This could be attributable to the fact that recreation abounds on Lake Zumbro, which is the only recreational lake in Olmsted County providing for motor boat use, water skiing, jet skiing, and swimming.⁴ (Id. at 11:7-8.) Locating the final route on the Modified Preferred Route will have a substantial negative impact to this recreational resource.

³ Mr. Broberg is employed by the firm of McGhie & Betts Environmental Services, Inc., in Rochester where he is vice-president and a principle. (Direct Testimony of Jeffrey S. Broberg ("Broberg Direct"), 1:8-9 (May 20, 2011).) He manages a staff of environmental professionals, civil engineers, surveyors, land planners and scientist, and he himself is a Minnesota licensed Professional Geologist and is registered through the National Registry of Environment Professionals as a Registered Environmental Manager. (Id. at 1:9-12.) Mr. Broberg has worked for 20 years in environmental and land use assessments in Oronoco Township in Olmsted County and is familiar with the local Township and County, the historical settlement patterns and current land use patterns, Township and County land use regulations and land use approval process. (Id. at 2:13-16.)

⁴ It is true that the DNR lists 16 protected water lakes in Olmsted County, but Lake Zumbro is the only recreational lake in Olmsted County.

The impacts along the Modified Preferred Route increase when aesthetics are considered. As Mr. Smith and Mr. Broberg testified, and as Minnesota Rule 7850.4100 provides, aesthetic impacts, as well as the perceptions that those impacts have on people, property values, and health, are an important part of the planning and siting process. (Minn. R. 7850.4100; Hr'g Tr., vol., 2, 57:5-6; 122:3-5.) At the evidentiary hearing, Mr. Smith testified that transmission line poles can be seen up to a quarter mile away, thus creating visual impacts at that distance. (Hr'g Tr., vol., 2, 55:5-56:1.) According to Mr. Smith, a total of 76 residences (non-agricultural and agricultural) will experience direct and/or aesthetic impacts along the Modified Preferred Route, while only 34 residences will experience these impacts along North Route. (Smith Direct, Ex. 3.)

Mr. Smith also testified about the ways in which transmission lines impact what people can do with and on their property. Depending on the placement of the transmission lines, people may lose the ability to build structures on certain areas of their property and may also be required to cut down trees and other types of plants that reach a certain height and interfere with the transmission lines. (Hr'g Tr., vol. 2, 62:15-21.) Transmission lines may also impact a person's enjoyment of his or her own land by causing interference with and preventing receipt of cable television, radio, Wi-Fi, and other electric transmissions. (Id. at 62:22-63:2.) Finally, with health concerns aside, high voltage transmissions lines can have an impact on children and restrict where they can run and play. (Id. at 63:3-9.)

In light of all of these impacts, it is somewhat troubling that the Applicant did not take into account future development along the proposed routes when it chose to favor the Modified Preferred Route. The Applicant admitted that it put more weight on existing land use than potential future land use when it conducted its analysis of the proposed routes. (Hr'g Tr., vol. 1,

122:23-25; 124:12-14.) However, future development and the impact of the Project on that development is an important factor to consider, particularly since Mr. Hillstrom believes this electrical transmission system will be in existence for approximately 50 to 100 years. (Id. at 136:17-137:3.)

The Applicant acknowledged that the Modified Preferred Route goes through about one mile of potential residential zoning, and that Oronoco Township's and Olmsted County's land use plans provide for development. (Id. at 124:15-22.) The Applicant also acknowledged that the North Route crosses agricultural land, and that Wabasha County's land use plan provides for continued agricultural use. (Id. at 131:4-20.) With residential development planned along the Modified Preferred Route and continued agriculture planned along the North Route, it is more than likely that the number of homes located along the Modified Preferred Route will increase over the years, whereas the number of homes along the North Route will remain somewhat stable. As Mr. Smith opined, minimizing impacts to residential development and human settlement should take precedence over reducing impacts on agricultural land where there are lower levels of human settlement. (Id. at 64:1-7; 69:1-6.) Accordingly, the Modified Preferred Route should not be selected as the final route, since it will cause the greatest impact on human populations.

B. Effects on Public Health and Safety.

Multiple studies, research, and reports exist showing that transmission lines, stray voltage, and electric and magnetic fields cause adverse health effects in the human population. While these studies differ as to what amounts of electricity, strengths of fields, and lengths of exposure are harmful, the perceptions these studies create in the human population are as important as the realities. (See Hr'g Tr., vol. 2, 122:6-7.) No one wants to live near or under a

power line. The mere risk of adverse health effects is reason enough to locate transmission lines as far away from human settlement as possible.

The Applicant does not know with certainty how much electricity the Project will be required to generate, and it is this amount that will impact public health. Amanda King, witness for the Applicant, gave her opinion that 600 MVA was the maximum load the Applicant believed would occur on this line. (Hr'g Tr., vol. 1, 166-167.) However, the transmission line has a standard 345kV design of 2,050 MVA, which means that this is the maximum load the transmission line can actually transmit. (*Id.*) If the transmission line only needed to transmit a maximum of 600 MVA, why was it designed to have a 2,050 MVA capacity?

Interestingly, Ms. King testified that the Applicant could not predict what amount of electricity the transmission line would be required to transmit past the year 2050. (*Id.* at 183:16-20.) In other words, the Applicant is only able to plan for 39 years out of the 50 to 100 years of expected life of the Project. (*Id.*; *see id.* at 136:17-137:3 (Mr. Hillstrom's testified that he believes the transmission line will be in existence for 50-100 years).) Because future electricity levels are unknown, as well as any adverse health effects caused by those electricity levels, the transmission lines should be located as far away from human settlement as possible and should not be located on the Modified Preferred Route.

C. Effects on Land-Based Economies, Including, but Not Limited to, Agriculture, Forestry, Tourism, and Mining.

If the Project is located on the Modified Preferred Route in Oronoco Township and Olmsted County, rather than on the North Route in Wabasha County, land-based economies will suffer a greater negative impact. As Mr. Broberg testified, the effects of siting the Project within agricultural land on the North Route will be less disruptive than siting the Project along the Modified Preferred Route, since there are only a small number of potential agricultural impacts

that may occur. (Hr'g Tr., vol 2, 131:13-17.) The footprint of the transmission towers themselves may take land out of production or change the logistics of field operations. (Id. at 131:20-23.) There may also be impacts on animal agricultural and disturbance of GPS systems relied on by farmers and their equipment. (Id. at 132:1-5.) However, there is no evidence that electric and magnetic fields have any impact on the growth of crops. (Id. at 132:7-9.)

Mr. Broberg testified that the Wabasha land use plan focuses on the preservation of the current agricultural use, and that the Oronoco Township and Olmsted County land use plans encourage the continuation of the settlement pattern, which has been toward small farm development and accommodating feed lots and subdivisions. (Id. at 146:23-147:1.) He also testified that Oronoco Township's planning has been to define growth quarters that are essentially radial from Rochester. (Id. at 147:11-13.) When asked about the trends and economics in Oronoco Township, Mr. Broberg gave the following the testimony:

As I discussed later in my testimony, the size of parcels that we see now in Oronoco Township is the result of 150 years of land settlement. And those trends have occurred most recently in most current decades based on changes and modifications to the local land use plans and zoning documents.

So we have a history in Oronoco Township of just exactly that and promoting suburban style residential growth along the Highway 52 corridor, along the river corridor, and other - - along other major transportation routes. So if you look at the - - just the geography of the parcels and the distribution of parcel sizes, you'll see that trend of smaller and smaller parcels within those corridors as they've been favored toward rural residential nonfarm development versus development of larger farms.

(Id. at 155:9-25.)

Specifically, Oronoco Township has policies to encourage 35-acre hobby farms, small horse acreages, and small feedlots of under 30 animals. (Id. at 147:7-10; 19-20.) Accordingly, the parcels in Oronoco Township are much smaller than parcels typically used in production row crop agriculture and larger-scale livestock production. (Id. at 147:4-6.) If a transmission tower

is placed within one of these small agricultural parcels or acreages, it is likely the footprint of the tower will occupy a large part of the parcel, thus taking the entire parcel out of production. Placement of the final route along the Modified Preferred Route through Oronoco Township would have a devastating impact on Oronoco Township's economy and land-use pattern.

D. Effects of Archaeological and Historic Resources.

Oronoco Township believes that, despite Intervenor North Route Group's ("NRG") arguments to the contrary, there are no real archeological or historical resources that will be impacted by placement of the final route along the North Route. NRG attempted to raise such issues in its written testimony, but its witnesses, under cross-examination at the evidentiary hearing, were forced to acknowledge that none really exist. NRG witness Suzanne Rohlfing acknowledged that, while such archeological and historical resources such as Indian artifacts should be considered, she stated that she is unaware that Indian artifacts will actually be impacted if the final route is placed along the North Route. (Id. at 20:3-7.) Moreover, Ms. Rohlfing acknowledged that a potential historical feature known as Bright's Cave may be within a mile of the North Route, but she is actually unable to set forth any historical or cultural value and acknowledges that Bright's Cave is not recognized anywhere as a historical site. (Id. at 20:15-24; 23:7-9.)

Similarly, the Red Bridge School House Foundation has questionable historical significance. The Red Bridge School House Foundation is located just across the east side of the Zumbro River. (Id. at 23:11-24:1.) This Foundation, Ms. Rohlfing acknowledges, is not formally recognized by any historical body. (Id. at 24:5-7.) There is no real explanation as to how it would be impacted one way or the other by selection of the North Route as the final route.

The Stage Coach Trail Run is the last item of potential historical significance addressed by NRG. In her written testimony, Ms. Rohlfing claimed this was an old stage coach trail running through the area with wagon ruts visible to the naked eye. (Direct Testimony of Suzanne Rohlfing and Stephen Hackman 21:12.) It is not even known, nor was Ms. Rohlfing able to tell us, how the ruts would be impacted, since she did not even know where they were located. (Hr'g Tr., vol. 2, 24:13-25:5.) However, Ms. Rohlfing does acknowledge that the Stage Coach Trail Run is not recognized as a historical site. (Id. at 25:6-8.).

In summary there is no evidence in the record to support the argument that archaeological and historic resources will be negatively impacted if the North Route is selected as the final route.

E. Factors E and F: Effects on the Natural Environment, Including Effects on Air and Water Quality Resources and Flora and Fauna; Effects on Rare and Unique Natural Resources.

Ms. Jamie Schrenzel, witness from the Minnesota Department of Natural Resources (“DNR”), testified about the Project’s potential impacts on the environment and its natural resources. (See Hr’g Tr., vol. 3, 76-140.) Ms. Schrenzel testified that the DNR believed the least amount of environmental impacts would be experienced at the White Bridge Road crossing of the Zumbro River on the Modified Preferred Route. (Id. at 80:12-13.) The DNR did not recommend the river crossing on the North Route, since it is a greenfield crossing with no existing infrastructure, and it would require forest clearing to accommodate the transmission line. (Id. at 80:22-81:2.) Interestingly, though, the White Bridge Road crossing itself is a moderate site of biodiversity significance containing a red oak and white oak forest, which would also require deforestation if the Modified Preferred Route is selected as the final route. (Id. at 89:25-

90:9.) In summary, the environment and the natural resources found therein will experience some impacts regardless of where the transmission line is sited.

It is reassuring to know that many of the environmental impacts anticipated by the Project can be mitigated, if not avoided altogether. As Ms. Schrenzel testified, while the North Route dissects an undeveloped sand and gravel resource, the impacts to this resource can be mitigated through alignment choice and working with the Lands and Minerals Division on possible mitigation. (Id. at 86:20-87:2.) Importantly, the DNR did not receive any comments from the Land and Minerals Division stating that licenses for the Project would not be issued if either the North Route or the Modified Preferred Route is selected as the final route. (Id. at 90:17-91:3.) Accordingly, it is likely the DNR will not have any issues with the licensing of the Oronoco Preferred Route either, since it is split between the North Route and the Modified Preferred Route.

F. Minnesota Rule 7850.4100 Factors G through N Likely will not Impact Final Route Selection.

There is little evidence in the record with respect to several of the factors listed in Minnesota Rule 7850.4100, and in any event, it is unlikely that these factors will have a significant impact on selection of the final route. These factors are as follows:

- G. application of design options that maximize energy efficiencies, mitigate adverse environmental effects, and could accommodate expansion of transmission or generating capacity.
- H. use or paralleling of existing rights-of-way, survey lines, natural division lines, and agricultural field boundaries.
- I. use of existing large electric power generating plant sites.
- J. use of existing transportation, pipeline, and electrical transmission systems or rights-of-way.
- K. electrical system reliability.

- L. costs of constructing, operating, and maintaining the facility which are dependent on design and route.
- M. adverse human and natural environmental effects which cannot be avoided.
- N. irreversible and irretrievable commitments of resources.

See Minn. R. 7850.4100.

It should be noted that the estimated cost to construct the Modified Preferred Route is \$3.4 million higher than the cost to construct the North Route. (See Ex. 71 (Preferred Route with White Bridge Road crossing costs \$194,000,000 and North Route costs \$190,600,000).) The Applicant's Witness, Grant Stevenson, acknowledges that substation planning will accommodate any of the routes, including the Oronoco Preferred Route. (Hr'g Tr., vol. 3, 36:19-37:12.) If a substation is located on or near residential land in developed areas, such as those found along the Modified Preferred Route in Oronoco Township and Olmsted County however, a larger buffer zone and landscaping is required. (Id. at 51:18-13; 18-24.) This will result in even higher construction costs if the Modified Preferred Route is selected as the final route.

III. IF THE NORTH ROUTE IS NOT SELECTED AS THE FINAL ROUTE, PLACEMENT OF THE FINAL ROUTE ALONG THE ORONOCO PREFERRED ROUTE WILL ALLEVIATE IMPACTS ON HUMAN SETTLEMENT AND THE ENVIRONMENT.

If the Court chooses not to select the North Route as the final route, it should select the Oronoco Preferred Route as the final route, since it will resolve some of the conflicts between the Preferred Route and the North Route. (See Ex. 90.) By following the western end of the North Route, thereby avoiding Oronoco Township, residential areas and areas planned for future residential development (i.e., human settlement) will be avoided. By following the eastern end of the Modified Preferred Route, the RJD Memorial Hardwood State Forest and the deforestation that would be required to accommodate the Project (i.e., environmental impacts) will be avoided.

Additionally, the Oronoco Preferred Route complies with the State of Minnesota's non-proliferation policy by following existing infrastructure and corridors throughout the entire length of the route, including the crossing at the Zumbro River. Accordingly, the Oronoco Preferred Route resolves the conflict between Oronoco Township and NRG and satisfies the factors in Minnesota Rule 7850.4100.

CONCLUSION

For the foregoing reasons, the North Route should be selected as the final route for the Project because it will have the least impacts on humans and the environment. If the North Route is not selected, the Oronoco Preferred Route should be selected, since it resolves some of the conflicts between the Preferred Route and the North Route.

Respectfully submitted,

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