



Minnesota Department of Transportation

Office of Land Management
395 John Ireland Boulevard Mail Stop 678
Saint Paul, MN 55155

Phone: 651-366-4635
stacy.kotch@state.mn.us

November 2, 2015

Ray Kirsch, Environmental Review Manager
Minnesota Department of Commerce
85 7th Place East, Suite 500
St. Paul, Minnesota, 55101

Re: In the Matter of the Application of Great River Energy and Minnesota Power for a Route Permit for the Menahga Area 115 kV Transmission Line Project
PUC Docket No. ET2, E015/TL-14-797

Dear Mr. Kirsch,

On September 28th, 2015, the Minnesota Department of Commerce (DOC) issued a Notice of Availability of Environmental Assessment (EA) relating to the route permit application by Great River Energy and Minnesota Power (Applicants) for the Menahga Area 115 kV Transmission Line Project in Hubbard, Wadena, and Becker Counties, Minnesota. The Minnesota Department of Transportation (MnDOT) has reviewed the EA regarding the proposed transmission line project and submits the following comments in response to the Notice.

The original Preferred Route, the Blueberry Route Alternative, the Pipeline South Route Alternative, and the US 71 Route Alternative evaluated in the EA all have locations that either cross or run parallel to highways that are part of the state trunk highway system and the National Highway System. The enclosed comments provide input on specific impacts associated with the proposed project discussed in the EA.

MnDOT wishes to participate in the route permitting process so that it will contain a thorough evaluation of the effects various route proposals may have on the state transportation system. MnDOT's fundamental interest is to ensure that the route permit identifies, quantifies and reflects to the extent possible, any impacts the proposed high voltage transmission line (HVTL) may have on the safety of the transportation system, the effectiveness of the operations or maintenance of the state trunk highway system, and any additional costs that may be imposed on the state trunk highway fund as a result of the location of the proposed HVTL.

MnDOT has adopted a formal policy and procedures for accommodation of utilities on the highway rights-of-way ("Utility Accommodation Policy"). A copy of MnDOT's policy can be found at <http://www.dot.state.mn.us/policy/operations/op002.html>.

MnDOT's approach to the HVTLs involved in the Applicants' proposal is to work to accommodate these HVTLs within or as near as feasible to the trunk highway rights of way, based on an evaluation of the specific locations to ensure that appropriate clearance is maintained to preserve the safety of the traveling public and highway workers and the effective operation of the highway system now and in the foreseeable future. MnDOT's Utility Accommodation Policy seeks to guide the balance between accommodation of utility operations

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in the highway rights of way and preserving the safe and efficient operation of the transportation system.

Overview of Transportation-Related Impacts of HVTLs on Trunk Highways

The Proposed Route and 3 of the Route Alternatives in this matter either cross over or run parallel to trunk highways (TH) in a number of locations. When a route is ultimately selected by the Minnesota Public Utilities Commission (MPUC), the Applicants will need to obtain a valid permit from MnDOT in any location where the HVTL will occupy any portion of the highway right of way.

Highway rights of way do not have a uniform width. The width of the right of way, and the distance from the centerline of the roadway to the boundary of the right of way, varies from highway to highway, and even from mile to mile along a given highway. The reasons for this variability are many, and include considerations such as the time when the right of way was purchased, the topography and geology of the area, the negotiations with the individual landowners from whom the right of way was acquired, and the timing and nature of changes and upgrades to the highway that have occurred over the years.

Therefore, a uniform policy that an HVTL can safely be located "X" feet or "Y" feet outside the highway right of way boundary line generally does not work well. A two-dimensional map does not provide sufficient information to determine a suitable alignment for a HVTL. Rather, MnDOT's approach is to evaluate the type of activities that regularly occur on and along highways. These activities can be evaluated in three groups – (a) traffic that uses a highway, (b) maintenance, repair and related activities and structures associated with the ongoing operation of the highway, and (c) construction activities that are likely to occur in the foreseeable future. These functions or uses of the highway each have a zone – i.e., a height and width – in which they take place either along the roadway surface or in the ditches, near bridges, intersections or interchanges where the maintenance and construction activities take place.

Once the zones of these recurring highway activities are identified, a safety buffer zone from the location of the energized wires of the HVTLs must be applied. The Occupational Safety and Health Administration (OSHA) and the National Electric Safety Code (NESC) can provide guidance on the safety clearances for activities near various voltages of HVTLs. The OSHA or NESC safety buffer should be applied between the zones of transportation activities and the location of the energized lines.

I. Routes and Route Variation Proposals

In applying its Utility Accommodation Policy to a permit application, MnDOT must evaluate each proposed pole location individually in relation to the topography of the land, the geometry of the roadway, the width of the highway right of way, the design of the HVTL structures, and other factors. Given the variability of these factors and the number of potential locations, MnDOT is not able to provide specific answers at this time about whether it can grant permits for the potential locations where the various route proposals intersect with highway rights of way. As referenced earlier, MnDOT's approach to the Applicants' proposal is to work to accommodate

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these HVTLs within or as near as feasible to the highway rights of way, based on an evaluation of the specific locations to ensure that appropriate clearance is maintained to preserve the safety of the traveling public and highway workers and the effective operation of the highway system now and in the foreseeable future.

To the degree that specificity is possible at this stage in the process, MnDOT will provide additional information about the locations proposed in the routes involved in the Applicants' proposals.

A. Highway Crossing Locations Proposed by the Applicants

The Applicants' preferred and alternate route proposals contain a number of locations where the proposed HVTLs would cross over a trunk highway, as distinguished from circumstances where it would run parallel to the highway.

Highway crossings generally do not pose insurmountable difficulties in issuing a permit. MnDOT routinely grants such permits to a variety of types of utilities. These permits usually have conditions associated with them, such as placement of the poles so that they do not become a physical obstruction that might be struck by an errant vehicle or block the visibility of traffic. MnDOT also does not permit utilities to run diagonally across intersections, and prefers that crossings occur as close to right angles as possible. MnDOT has a long history of working with utilities, including the Applicants, to establish appropriate conditions in locations where the utility seeks to cross a trunk highway.

B. Locations Parallel to Highway Rights of Way Proposed by the Applicants

The Applicants' Preferred Route and 3 of the Route Alternatives have locations where each of the various potential routes under consideration run parallel to or cross highways and roads. Some of the locations identified are roads or streets maintained by local highway authorities and are not part of the trunk highway system for which MnDOT is the responsible highway authority. MnDOT's scoping comments submitted to record (April 10, 2015) regarding the effects on TH 87 stand. However, given that the US 71 Route Alternative was introduced later, please consider the comments stated above about highway right of way, uniform width and the following:

1. In section 5.5 of the EA, the Applicants state the new transmission line poles will general be placed 3 to 7 feet outside of existing road rights of way. Given the type of transmission line structures used and various existing and future road right of way conditions, this distance has a high potential for physical encroachment due to overhang (pole arms and wires at rest) of MnDOT right of way and is typically not allowed.
2. There looks to be approximately 3 crossings of US 71 in the US 71 Route Alternative. MnDOT prefers crossings to be as close to right angles as possible as stated above. While all of the crossings appear to be skewed, the proposed HVTL crossing at 340th Street is skewed and diagonally crosses an intersection. MnDOT would not permit a crossing of this nature. The crossing would have to be adjusted to the north or south of the proposed area as to not diagonally cross over the intersection.



3. Roadside Vegetation Management considerations stated in MnDOT's scoping comments should be applied to the US 71 Alternate Route as well.

Finally, MnDOT wishes to underscore the importance of preserving sufficient flexibility for MnDOT to work with the applicant to determine an appropriate specific location for each pole to be placed along a trunk highway right of way. As the selection of the final route is made, in all locations where the route will cross or run parallel to a trunk highway it is imperative that the designated route be sufficiently wide so that MnDOT and the Applicants can work collaboratively to address the circumstances at each location and determine a specific alignment that can be permitted consistent with the considerations described in this letter.

MnDOT has a continuing interest in working with the DOC to ensure that possible impacts to highways and other transportation infrastructure are adequately addressed. We appreciate the opportunity to provide these comments. Please feel free to contact me if you have any questions regarding the information provided.

Sincerely,



Stacy Kotch
Utility Transmission Route Coordinator
Minnesota Department of Transportation

cc: Richard Munsch – District 3A Permits
Jim Utecht – District 4 Permits

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