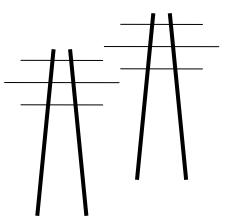
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August 15, 2014

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Julie Ann Smith via email: Juliea.Smith@hq.doe.gov Office of Electricity Delivery and Energy Reliability (OE-20) U.S. Department of Energy 1000 Independence Avenue SW. Washington, DC 20585

DOE Dockets: PP-398; DOE EIS 499
PUC Dockets: 14-21; 12-1163
Scoping Comments – Environmental Review
Not-So-Great Northern Transmission Line

Dear Mr. Storm and Ms. Smith:

I am submitting these comments for Residents and Ratepayers Against Not-so-Great Northern Transmission (RRANT).

The DOE/Commerce Environmental Impact Statement should clearly describe and characterize the "need" for this project, because it is that particularized need that the Alternatives will be measured against. The need for the project is a part of the DOE's NEPA review and consideration, and must be addressed.

The Environmental Report should specifically describe, characterize and analyze:

- The purpose of the project and justification for such a large transmission line.
- Transmission necessary for a small Power Purchase Agreement such as that claimed by Minnesota Power.

- Contractual terms between Manitoba Hydro and Minnesota Power requiring construction and operation of a transmission line, whether there are design and capacity specifications, cost ceiling, etc.
- Transmission necessary for a much larger amount of export how much export is possible with this project as proposed.
- The purpose of the project, weighing its purpose as both a public or private purpose.
- The environmental and policy impacts of building transmission across the border and through Minnesota for export.
- Disclose and analyze the design of this project, specifically the voltage, size of conductor (1192 Bunting?), and number of conductors bundled, and the maximum and projected peak ampacity and MVA. Then, plug this range of numbers into a chart and determine the potential EMF levels, from a modest PPA sized load to the emergency rating, and a couple in-between "expected" load levels.
- The total acreage of Right-of-Way required, and types of land (fields, interior curtilage, shared right-of-way with other infrastructure, lake and river crossings, wetlands, etc.)..
- Alternatives will be analyzed but what alternatives alternatives to what? This is a project "needed" to transmit a nominal amount of electricity under a PPA between Minnesota Power and Manitoba Hydro, and the rest is for export. So given that "need" claim, what alternatives are there? This is transmission for profit. Is the search on for an alternative revenue stream as an alternative? Are there alternatives to satisfy this "want" that pretends to be a need? The ER should independently address alternatives to the stated need, that of the 250 MW PPA, the claimed 750 MW capacity, and the "need" for export capacity up to the emergency rating of the line.
- The type of project, as if it is a transmission line for export, it cannot accomplish export if the project's line goes only to the Blackberry substation.
- The timing of this project, as proposed, must be considered, both for purposes of the 250 MW PPA, the potential 133 MW PPA, and for purposes of export, which cannot be accomplished if the project's line goes only to the Blackberry substation.
- Demand side management should be analyzed as an alternative, both within the Minnesota Power system and in Minnesota.
- The inherent inefficiency of transmission over long distances must be quantified and the line loss of the length of transmission from the generation source to the Blackberry substation must be determined. How many MW of line loss will be added by adding this project alone (calculated at varying loading, S, M & L)? How many MW of line loss are claimed to be avoided by adding this line for varying loading (S, M & L)?

- This project is part of a much larger whole, both north of Minnesota and east of Minnesota.
- To avoid segmentation, the environmental review for this project must consider impacts of the whole project. This project is an integral part of a much larger project in the U.S. and Canada which is currently under NFAT review in Canada. The Environmental Review must consider cumulative impacts of the entire project including the dam and transmission proposed in Canada. But for those, this project would not have been proposed.

The environmental information gleaned for the Canadian part of this project should be incorporated into the U.S. DOE and Minnesota EIS, particularly the aspects regarding need:

- <u>Macro Environmental Considerations MNP</u>
 - o <u>Errata Summary</u>
 - Macro Environmental Considerations UPDATED

The EIS must also consider impacts of the whole project heading eastward. Will it function electrically if it ends at the Blackberry Substation, as this application states? Will it need the "Phase II" segment from Blackberry to Arrowhead to function? Will it need to go over the U.P. across the bridge and down towards Detroit to achieve the "benefits" claimed in this application?

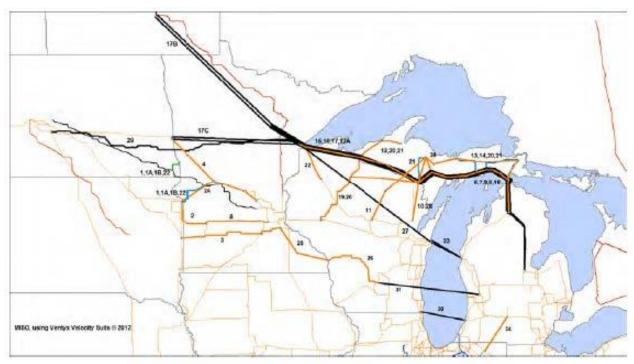


Figure E-2: Northern Area Study Transmission Options

The EIS should also look at the whole of the project when considering costs and/or benefits. It is designed, modeled as a whole, not as a small piece. What are the costs of the entire project and its supporting projects?

- How will the utility acquire the land necessary for this project? Under the laws of the state of Minnesota, is eminent domain an option for a private purpose project such as this, one for a PPA of 250 MW and for export?
- The EIS should consider reconductoring and/or double circuiting the existing lines from Manitoba to the US.
- The size of this, meaning both the voltage and conductor configuration, should be balanced against the claim of need for this project.
- If the western route proposed by Xcel Energy, connecting into its Fargo-Metro CapX near Barnesville, is considered as an alternative, what is the ability of that alternative to address Minnesota Power's "need" for transmission for its PPA and its agreement to build transmission in associated with that PPA, and desire for eastern export?



- Cultural resources affected by the construction of another dam in Manitoba as a part of this project.
- Cumulative impacts of this transmission project on landowners with other infrastructure, balanced with the state's policy of non-proliferation.
- The full range of potential electric and magnetic fields must be addressed, not just a minimal number that's a small percentage of potential capacity, meaning the fields must be calculated for the 1,024 and 2,000 amps stated on p. 45, and the 4,000-5,000 or more amps of potential conductor ampacity for this conductor configuration.
- The impacts of UV release associated with corona, a known carcinogen, and the health impacts to humans and animals.
- The security risks to sabotage and/or terrorism inherent in a transmission line of this size.
- Long distance transmission is inherently unstable electrically. The EIS must consider the security risks through grid instability if this "radial" 500 kV line would be built only to the Blackberry Substation. The EIS should also address whether this high capacity line can be safely built only to the Blackberry Substation, or whether additional segments are necessary to operate securely.

Thank you for the opportunity to submit these Comments.

Very truly yours,

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Carol A. Overland Attorney at Law