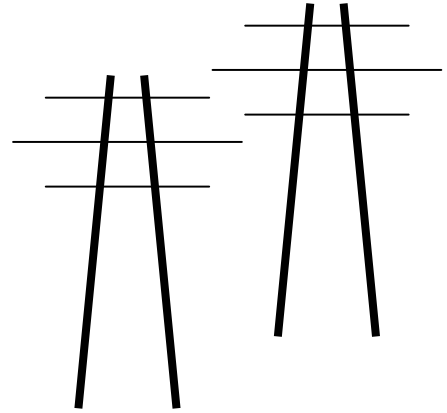


# Legalelectric, Inc.

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January 3, 2018

Andrew Levi  
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St. Paul MN 55101-2198

via email & eDockets: [andrew.levi@state.mn.us](mailto:andrew.levi@state.mn.us)

RE: Scoping Comments  
Freeborn Wind, LLC Transmission  
MPCU Docket: IP-6946/WS-17-322

Dear Mr. Levi:

On behalf of Association of Freeborn County Landowners, enclosed please find Scoping Comments for the above-entitled docket.

Please let me know if you have any questions or require anything further.

Very truly yours,

Carol A. Overland  
Attorney at Law

Enclosure

cc: Association of Freeborn County Landowners

**BEFORE THE  
MINNESOTA PUBLIC UTILITIES COMMISSION**

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**CERTIFICATE OF SERVICE**

**ASSOCIATION OF FREEBORN COUNTY LANDOWNERS**

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**In the Matter of the Application of Freeborn  
Wind Energy, LLC for a Route Permit for  
the Freeborn Wind Farm to Glenworth  
Substation 161 kV Transmission Line Project  
in Freeborn County**

**PUC Docket No. IP-6946/TL-17-322**

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I, Carol A. Overland, hereby certify that I have this day, served copies of the Scoping Comments by email to Andrew Levi and by electronic eFiling and eService



January 3, 2018

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**BEFORE THE  
MINNESOTA PUBLIC UTILITIES COMMISSION**

**Nancy Lange  
Dan Lipschultz  
Matt Schuerger  
Katie Sieben  
John A. Tuma**

**Chair  
Commissioner  
Commissioner  
Commissioner  
Commissioner**

In the Matter of the Application of Freeborn  
Wind Energy, LLC for a Route Permit for the  
Freeborn Wind 161 kV Transmission Line  
Project in Freeborn County, Minnesota

**PUC Docket No. IP-6946/TL-17-322**

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**SCOPING COMMENT TO COMMERCE**

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The Association of Freeborn County Landowners is an informal association of landowners in and adjacent to the site footprint of the above-captioned Freeborn Wind Farm (hereinafter “Freeborn Wind”). The Association of Freeborn County Landowners hereby submit this Scoping Comment to the Commission based on our previous Completeness comments, on comments made at the public meeting, and on the questions stated in the Notice:

- What potential human and environmental impacts should be studied?
- What are possible methods to minimize, mitigate, or avoid potential impacts that should be studied?
- Are there any alternative routes or route segments that should be studied to address potential impacts?
- Are there any unique characteristics within the project area that should be considered?

The project proposed is for seven (7) miles of 161kV transmission “to interconnect the proposed Freeborn Wind Farm project substation to the Glenworth Substation south of the City of Glenville.” Under the transmission siting statutes, the criteria for siting to be considered is found under Minn. Stat. §216E.03, Subd. 7.

## THE COMMISSION MAY CONSIDER ISSUES OF SIZE, TYPE AND TIMING

Although the statute prohibits consideration of issues of size, type and/or timing in the environmental review for a project, the Commission is only prohibited from considering these issues where there is a Certificate of Need. There is no Certificate of Need for this project, and thus no prohibition for the Commission.

## CONSIDERATION OF USE OF EMINENT DOMAIN

The socio-economic impacts of the project on the community are related to the use and/or taking of easements, which are implicit subsidies for transmission and which are a factor in property valuation. Socio-economic impacts are at issue in the transmission routing criteria. Under Minnesota notice rules, an applicant for a transmission line must state whether eminent domain may be used, and the applicants in this case have stated, in the application, and the Department of Commerce in its notice, that eminent domain may be used for this project.

For example, in the application:

*Freeborn Wind has, through voluntary agreements, obtained the private real estate rights necessary to construct the Project within the Proposed Route. If additional property rights are required for the Project, Freeborn Wind will seek to negotiate a voluntary easement agreement with each affected landowner. If Freeborn Wind and the landowner are unable to negotiate an easement for the right-of-way, Freeborn Wind will acquire the required real property rights through exercise of the power of eminent domain pursuant to Minnesota Statutes Chapter 117. The process of exercising the power of eminent domain is called condemnation.*

And again:

*If the MPUC grants the requested Site Permit and Route Permit, the Freeborn Wind entity will be transferred from Invenergy to Xcel Energy. Xcel Energy will then become the owner of Freeborn Wind, and be responsible for fulfilling all of the conditions set forth in any Site Permit or Route Permit granted by the Commission. Freeborn Wind, then owned by Xcel Energy, would construct, own, and operate both the Freeborn Wind Farm and this Project.*

Application, p. 6.

In the notice:

***Eminent domain:*** *If the Commission issues a route permit, the Applicant states it may use the power of eminent domain to acquire land for this project.*

Notice, p. 3 of 4, December 6, 2017.

Eminent domain may only be used for a public purpose. Minn. Stat. §117.012. Public purpose does include creation or functioning of a public service corporation. Minn. Stat. §117.025, Subd. 11. Eminent domain is available to a public service corporation, and some aspects of eminent domain law are exempted for public service corporations. Minn. Stat. §117.025, Subd. 10; Minn. Stat. §216.01, Subd. 10. However, Freeborn Wind Energy, LLC is not a public service corporation nor is it a utility. Although Xcel Energy/NSP is a public service corporation, buying Freeborn Wind Energy, LLC

### **WHAT POTENTIAL HUMAN AND ENVIRONMENTAL IMPACTS SHOULD BE STUDIED?**

The environmental assessment must consider the impact of the transmission project on this agricultural community's "future development and expansion and their relationship to the land, water, air and human resources of the state." The project area is a quiet, sparsely populated rural area, with residents strongly attached to the land, for their living as farmers, for their sense of community, and the feeling of contentment as they look out their windows over the countryside, as they drive down the township roads, and as they look over the horizon greeting the day's sunrise or watching the sunset. Many families have lived in the area for generations, some on Century Farms. Others have moved in more recently, built homes, choosing this setting as their home specifically for its rural characteristics. In this area, the viewshed is expansive, and it is an important aspect of day to day life. The construction and operation of industrial turbines will forever change the viewshed. Aesthetic values must be considered in review of this project.

The impacts of this transmission line on property values and marketability should be addressed in the environmental review. There is no mention of this in the application.

The impact of permitting the project and substation separately from the transmission line must be considered, as it is likely determinative of the transmission route, and thus literally connected. This transmission project will not be built but for the permitting of the wind project.

The timing of this application and permitting process should be questioned because the schedule for this project puts the construction of the wind project far behind the permitting of this transmission. Routing should be behind the wind project it is dependent on. AFCL did request that this docket be delayed in the "Completeness" commenting period.

A commenter at the Commerce public meeting for the wind project referred to electric delivery problems with the Freeborn/Mower electric system. The environmental report should address electrical issues from overloading of the line, to voltage instability, to inductive interference, and/or any other electrical issues. Commerce should verify whether this project will have any impact, positive or negative, on the Freeborn/Mower system.

Big picture transmission issues should be taken into account in the environmental assessment. In the application for the wind project, it states that up to 200 MW of wind will be developed, of which 84 MW will be sited in Freeborn County, Minnesota, and the balance of the project is in Worth County, IA. The project is claimed to be a 200 MW project, yet according to Xcel

Energy, just 150MW will be granted by MISO after network upgrades. Freeborn’s MISO queue number as J407. Xcel Energy states in its acquisition docket Petition:

**The MISO System Impact studies show that the project will be granted 150 MW of NRIS upon completion of all required network upgrades.**

Xcel Energy Petition, filed 10/24/2016.<sup>1</sup>

Was Xcel Energy’s statement in the resource acquisition docket that MISO will approve 150MW incorrect? Was Applicant’s statement at the public meeting September 20, 2017 that 200 MW will be approved incorrect? There’s conflicting information, and the accuracy of Xcel’s and Applicant’s statements must be verified by Commerce. The MISO approval for interconnection must be considered in terms of efficiency and cost-effectiveness. If only 150MW can be put online, the project is neither efficient nor cost-effective, both considerations under routing criteria.

There are two MISO interconnection queue numbers associated with this project, J407 and J885, confirmed by Litchfield at the December 19, 2017 Commerce scoping meeting. These interconnection requests are for more than the project would “need,” though it makes more sense if J407 was approved for only 150MW and J885’s 64 MW was added, totaling closer to 200. The environmental review must address the need for two interconnection requests to MISO.

The environmental review should address whether this project will fulfill the claimed need for this project. There is no Certificate of Need for this project.

Electromagnetic fields are typically understated in transmission applications. The magnetic field charts show a range at the centerline of 44.14 – 69.53 mG, and at RoW edge, 27.17 – 27.47 mG (the 11 foot “right of way” is an anomaly with much higher mG levels). The levels of 27.17 mG are more than 10 times the critical value. See e.g., Dr. Magda Havas, Intensity of electric and magnetic fields from power lines within the business district of 60 Ontario communities (2002). Epidemiological association of magnetic fields and childhood leukemia has been shown at levels of 3-4 mG chronic exposure.<sup>2</sup>

<sup>1</sup> PUC Docket E002/M-16-777, online:

<a href="#">201610-125953-02</a>	PUBLIC	16-777	<input type="checkbox"/>	M	XCEL ENERGY	OTHER--WIND GENERATION ACQUISITION	10/24/2016
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<sup>2</sup> See e.g., Electrical and Biological Effects of Transmission Lines: A Review, Lee(1996).; Wertheimer, Savits & Leeper, Childhood Cancer in Relation to Indicators of Magnetic Fields from Ground Current Sources, 16 Bioelectromagnetics 86 (1995); A pooled analysis of magnetic fields and childhood leukaemia, Ahlbom, et al., 83(5) Br. J. Cancer 692 (1999); EMF-RAPID [www.niehs.nih.gov/emfrapid/html/EMF\\_DIR\\_RPT/NIEHS\\_Report.pdf](http://www.niehs.nih.gov/emfrapid/html/EMF_DIR_RPT/NIEHS_Report.pdf); Nerve Cell Damage in Mammalian Brain after Exposure to Microwaves from GSM Mobile Phones, Salford, Brun, Eberhardt, Environ Hlth Perspect, online at [dx.doi.org/doi:10.1289/ehp.6039](http://dx.doi.org/doi:10.1289/ehp.6039); Magnetic-Field–Induced DNA Strand Breaks in Brain Cells of the Rat, Environ Hlth Perspect 112:6 687-694; Electromagnetic hypersensitivity (EHS) and subjective health complaints associated with electromagnetic fields of mobile phone communication – a literature review published between 2000-2004, Seitz, Stinner, Eikmann, Herr, Roosli, Science of the Total Environment (in press, 2005); Chromosomal effects in lymphocytes of 400 kV substation workers, Nordenson, Mild, Ostman and Ljungberg, Radiat. Environ. Biophys 27:39-47 (1988); Leukemia in Electric Utility Workers: The Evaluation of Alternative Indices of Exposure to 60 Hz Electric and Magnetic Fields, Villeneuve, Agnew, Miller, Corey and Purdham, American Journal of Industrial Medicine 37:607-617 (2000); Exposure to electromagnetic fields and suicide among electric utility workers; a nested case-control study, Wiingaarden, Savitz, Kleckner, Cai, Loomis, Occup and Environ Med 2000:57:258-263 (2000).

It would be helpful in describing the specifications to state MVA capacity and whether line will be bundled or not (it appears not, but clarify). The 477 kcmil Hawk ACSR conductor seems to come in at 659 amps, whereas the amperage in the Magnetic Field charges is stated as 717 – and that level amperage likely can't be reached with a 477 kcmil conductor, and could be reached with a 556.5 kcmil conductor. On the other hand, Hawk ACSS has a rating of 1188 amps. The 265MW capacity claimed is more in keeping with the ACSS, but the amperage given is closer to ACSR. Again, clarification would be appreciated, but a larger value in Magnetic Fields modeling is better than understating!

Impacts on habitat and the wildlife in the area must be considered. In this case, the transmission project may have an impact on eagles, particularly considering the loss of multiple eagles from the Decorah eagle nest specifically due to transmission lines. Eagle nests are present but not acknowledged by the applicants, so once more with feeling, here are the nest locations:

- North of 110th St 1/2 mile and west of 840th Ave, Glenville MN  
GIS Coordinates: 43.529685 N 93.529685W
- 140th St and 1/2 miles west of 830th Ave, Glenville MN  
GIS Coordinates: 43.557454 N 93.219347 W
- 52717 173rd St, Austin, outside footprint, ~6 miles, within 10 mile area of concern  
GIS Coordinates: 43.605187 N 92.986884 W
- St Johns Community Albert Lea MN  
GIS Coordinates: 43.670554 N 93.393329 W
- East of Bridge Ave Albert Lea MN  
GIS Coordinates: 43.669976 N 93.353687 W

Coordination with DNR and USFWS and verification of locations is necessary to document nests and foraging areas. Applicants are denying these eagle nests exist!

Tree clearing status must be verified. Dan Litchfield stated at the Scoping meeting that he didn't think there would be any tree clearing. Habitat in this farming area is dependent on trees. The environmental assessment should identify areas of tree clearing. See, e.g., Table 15, p. 56, showing approximately 0.8 acres of trees within the proposed Right of Way which would be removed at three locations.

Cumulative impacts must be considered. This project is a transmission line collecting electricity from both the Minnesota and the Iowa parts of this line. All energy generated by the wind project will go through these lines. An example of cumulative impacts that should be addressed is the collector system that feeds the transmission line. The collector system map in the wind project application shows that electricity generated in Iowa will move north through at least two collector lines at Raven Avenue at the border and another just west of Raven Avenue, and east of that one collector may drop down into Iowa and then back up at Raven Avenue. There may also be another collector system link south of turbine 45. See collector system on Freeborn Wind

Project Application Figure 7, Topographic Map; Figure 11, Land Cover; Figure 16, Wetlands Inventory. Because the Iowa generation will be sent up to Minnesota for interconnection to the grid, the impacts of the collector system, its construction, and interconnection should be considered.

As for the wind project, the area may have karst formations and conditions, and efforts should be made to determine if karst is present along the transmission line route. There has been a karst study for the wind project, and that information should be reviewed to determine if it is useful for routing. If there is no information regarding karst in the transmission route area, then this should be investigated.<sup>3</sup>

A safety, public health, and welfare consideration, previously confirmed by the Department of Transportation in its comment, is potential for interference with the state's ARMER communication system and towers that feed into the ARMER system. This is an issue regarding both the wind project and its transmission lines. The Applicant states that the DOT has reviewed the wind project and has no issues of interference with the ARMER system. To assure prevention of interference with the ARMER system, Commerce should verify whether the DOT has any concerns about interference from the transmission line.

There is potential for inductive interference of the collector system and transmission lines with telephone and cable lines, as happened with the Blazing Star project. It is probably that many of the telephone lines in the area are old, as they were in the Blazing Star project, a phenomenon known to Commerce's Rich Davis. The potential for inductive interference in this project must be investigated, and inductive interference prevented

The transmission line must comply with the DOT's Policy of Accommodation, and the county and townships road regulations. The environmental assessment should address these limitations.

The transmission line's poles must be sufficiently distant from any roadway to be beyond the DOT's clear zone and not posing a hazard to traffic in the area.

The environmental assessment should consider the number of trips per day in the area during construction, and determine whether it is a public safety issue, and whether there is a need for mitigation of noise and dust.

### **WHAT ARE POSSIBLE METHODS TO MINIMIZE, MITIGATE, OR AVOID POTENTIAL IMPACTS THAT SHOULD BE STUDIED?**

As stated previously, the best possible method to minimize, mitigate, and avoid potential impacts of the proposed project is prevention. This applies to transmission as well as to the wind project. Means of avoidance are those of respectful siting, development and observance of sufficient siting standards, and of preventative, thoughtful, careful siting to avoid impacts. AFCL strongly

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<sup>3</sup> Rough information is available from Geospatial Information Office, online at [http://www.mngeo.state.mn.us/chouse/geology/county\\_regional.html](http://www.mngeo.state.mn.us/chouse/geology/county_regional.html)



urges the Dept. of Commerce to adopt a preventative stance in its review of this project, particularly in light of the impacts which are likely or are a certainty, and in light of the problematic nature of correction and mitigation if impacts and problems are not acknowledged and addressed prior to permitting and construction.

Potential impacts can be minimized and/or mitigated by limiting land used for this project to land owned by participants. The environmental review should update the list in Appendix E to identify which landowners are participants and for which transmission easement rights have been acquired, and which landowners have not acquiesced to a transmission right-of-way. Those who have not agreed to transmission on their land should not have their land considered for the project.

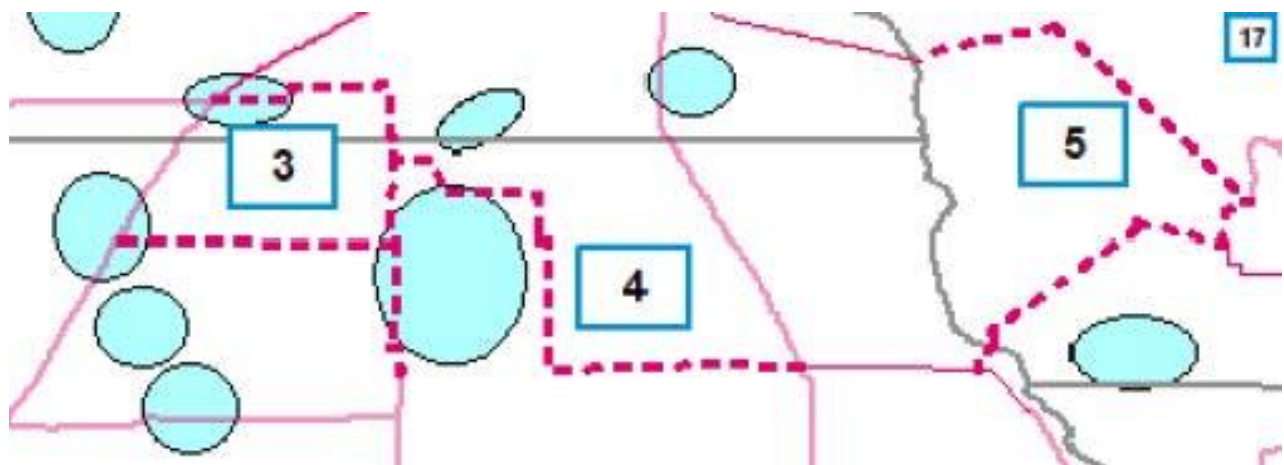
Potential impacts can be minimized and/or mitigated by use of existing utility and public rights-of-way, as required by Minnesota's policy of non-proliferation and Minn. Stat. §216E.03, Subd. 7(e). Those potential rights of way could include local government or utility easements already in existence, and/or bootstrapping onto those easements.

Although existing transmission in the area is shown on an application map, there is not enough information to determine whether the line could be useful, i.e., whether it is single or double circuit, whether co-location in the corridor or whether utilizing double circuited monopoles for both lines is an option.

The map showing existing transmission in the area, green dots and connecting lines, could also provide existing corridors or routing.

The area by the substation provides existing corridors that should be considered. There are also other substations that could be utilized, together with existing transmission, such as the Barton switching station, and the Hayward substation.

ITC has built/is building new transmission through Worth County that should be considered, as a part of the MVP 4 project which connects both east and west to MVP projects, and north and south to existing transmission (Worth Co. is that northernmost E/W section of MVP 4 extending to where MVP 4 connects to N/S MVP 3):



Use of the Northwood/Glenworth line should be considered because it is not double circuit, and though owned by another entity, Minnesota's policy of non-proliferation requires that it be considered. Parties can share RoW and poles, saving monetary and environmental costs.

Again, there is no prohibition of Commission consideration of system alternatives because there is no Certificate of Need, the prohibition only extends to consideration of size, type and timing issues in environmental review.

Transmission poles, if wood, are often treated with carcinogenic penta chemicals, which leach into groundwater. The environmental review should address whether penta poles will be used, and what precautions are planned. Placement of transmission poles should be at locations sufficiently distant from wetlands, streams, groundwater, and drain tile. Run-off must flow away from wetlands, streams and groundwater, such that there will be no contamination.

### **Permit conditions would aid in prevention and mitigation.**

Permit conditions are an effective way to address issues that may arise if the project were to be permitted – prevention is always better than mitigation. Proposed conditions include:

CONDITION: Land used for the transmission line must be only that of participating and/or “good neighbor” landowners.

CONDITION: Agricultural land used during construction must be restored to pre-construction condition and all landowner reimbursed for crop loss during construction and for at least 5 years afterward for losses due to compaction.

CONDITION: All landowners must be compensated for loss of production due to construction and losses over time due to soil compaction (see typical landowner compensation protocol for transmission construction, compaction, drain tile repair issues as example).

CONDITION: Agricultural drainage tile must be mapped out prior to construction, and post construction testing and active monitoring after construction must be performed. Damaged or destroyed drain tile must be replaced, and all landowners upstream and downstream must be compensated for losses due to drain tile damage (see landowner compensation protocol for transmission construction, compaction, drain tile repair issues as example). All landowner complaints regarding drain tile, whether participating or non-participating, must be immediately addressed.

CONDITION: If foundations or penta-poles are used for the transmission line, foundation composition must be safe without leachate of harmful chemicals into wetlands, streams, or groundwater.

CONDITION: Transmission routing must be verified to observe wetland setback.

CONDITION: Transmission must be routed such that they do not interfere and/or obstruct aerial spraying. If it does interfere with aerial spraying, sprayers must be compensated for lost business opportunity and revenue, and all landowners for loss of production.

CONDITION: Transmission must be sited such that they do not impinge on eagle nests and foraging areas, specifically located at least 2 miles distant.

CONDITION: Transmission lines must not be sited in areas of covered, transition or active karst.

CONDITION: Broadcast radio and television signal and its microwaves must not experience interference from the transmission line.

CONDITION: Emergency radio (ARMER) system must not experience interference.

CONDITION: Telephone lines and cable must not experience inductive interference. Commerce must commission an engineering study to investigate project inductive interference with telephone lines and cable, and the applicant be assessed the cost of the study. Collector and transmission lines must not be routed such that there is inductive interference with telephone and/or cable signal.

CONDITION: Transmission line will not create magnetic fields greater than 2 mG at the edge of Right of Way.

CONDITION: Transmission system and collector system must not create or exacerbate stray voltage issues in the project area. Any stray voltage problems reported must be corrected immediately.

CONDITION: Freeborn and its contractors must adhere to county and township development and road agreements.

CONDITION: Any permit issued should have a “Special Condition” that “the Project will not be constructed unless the Commission issues a Site Permit for the Freeborn Wind Farm,” and that if permitted, it may be transferred to, owned and built only by a public service corporation.

**ARE THERE ANY ALTERNATIVE ROUTES OR ROUTE SEGMENTS THAT SHOULD BE STUDIED TO ADDRESS POTENTIAL IMPACTS?**

There are alternative route segments that should be studied. In the application, applicants claim that they have all the land necessary for this transmission project, but they also state that eminent domain may be used. Application, p. 1, 6. In yet another section, applicant claims:

New ROW is required for the Project. Freeborn Wind has, through voluntary negotiations, acquired all the private land rights necessary to construct the Project along the Proposed Route. Freeborn Wind continues to negotiate with landowners in the Project

Area and may propose changes to the transmission line alignment if additional rights are acquired.

Application, p. 20, §5.1.3. This is contradictory.

From discussion at the public meeting, it appears that the alignment is on participants land and the route extends equally on either side of the preferred alignment. The purpose of the applicant's choice for routing, as understood by this writer, is to keep the "preferred" alignment on participants land. However, when using the applicant's preferred alignment, the applicant is putting it in the middle of a "route," and at places, at one spot or another, the route width encroaches onto non-participant land, rather than shift the route to one side or other of the alignment to keep it on participant land.

Eminent domain is a routing issue for this project because eminent domain is not, would not be, necessary if they indeed had all the land necessary and included in the route width only land owned by participants. Therefore, AFCL proposes that only land within applicant's control, participants' land, and in green, proposes one example of a route width entirely on participant land:



**This drawing of an alternate route, entirely on participant land, is NOT acceptance of any transmission line or transmission line route.**

AFCL's objections stand, but AFCL emphasizes that any route should be completely on participant land, not just applicant's preferred alignment, and no part of any route should be on non-participants land. This is a crucial point, because the Commission could decide to put the transmission line anywhere within the route. This transmission line must be on participants land. Eminent domain may not, and must not, be used for this transmission line, both because Freeborn Wind is not a public service corporation or utility, and because non-participants have not agreed to transmission on their land.

**ARE THERE ANY UNIQUE CHARACTERISTICS WITHIN THE PROJECT AREA THAT SHOULD BE CONSIDERED?**

This project is uniquely an Iowa/Minnesota project, with most of the turbines in Iowa. The impacts of the ENTIRE project should be considered, as the impacts are cumulative.

The project is also in an area unique for those living here, who chose to live here, whose families have lived here and worked the land for generations, whose livelihood depends on the land and their stewardship of the land. The value to area landowners is not fungible, it cannot be replaced.

The Association of Freeborn County Landowners raises the above issues to be considered by Commerce – EERA for scoping of the Environmental Assessment. This comment is not all-inclusive, and incorporates as if fully stated herein the Completeness comments previously submitted in this docket.

Thank you for the opportunity to submit these comments.



January 3, 2018

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