

**Langan, Matthew (COMM)**

**From:** Paul Mulholland [pkm@us.ibm.com]  
**Sent:** Wednesday, April 27, 2011 3:49 PM  
**To:** Langan, Matthew (COMM)  
**Subject:** DEIS comment (PUC Docket No. TL-09-1448)

Dear Matt, please forgive me if this is a duplicate sending. My email application crashed as I was sending, so I'm not sure you got this.

Following are comments on the DEIS for Docket #TL-09-1448. I ask that the MN Office of Energy Security review the specific issues or facts listed below for the Final EIS. I feel they are either missing, or should be more completely addressed.

**Effects on archaeological and historical resources;**

160A • Historical/archaeological resources – investigation has been requested on the identification and registration of Native Indian burial sites on the east bluff above the Zumbro River on route 3A. (Section 15, T109N R14SW of Wabasha County) My great-grandfather (original owner/settler of this parcel), grandfather and through my father have passed down to me their understanding of this area (see map) containing burial sites. Route 3A would bisect this area. Three state agencies have been contacted and plan further investigation when their schedules allow. (Mn Historical Soc, Mn Indian Affairs, Mn Office of Arch) Unfortunately, no representative from any of these agencies has been able to fit in an initial survey before this writing, but it is possible David Mathers from the MNHS may be able to do an initial survey in the near future, at least at the proposed transmission line area. Jim Jones from Mn Indian Affairs may be able to come sometime in May. The attached map section shows the bluff top location of the sites. (my house circled in red, the line in red is the bluff top over the Zumbro River which holds these burial sites.)

**Effects on rare and unique resources;**

160B • Unique resources – route 3A would bisect the Zumbro River below the Rochester Power Dam. The river below the dam remains ice-free in large areas (including at the route 3A crossing site) throughout the winter and is used by many Bald Eagles as a key fishing resource during winter months when waterways of the other routes are ice covered. In the spring the river way is used during water fowl migration and we regularly witness swans, geese, cormorants, and a wide variety of ducks using the river (right at this route's river crossing area) as a stop over on their migration journey.

• Throughout the year, we observe wild turkeys flying from the trees on our property across the river to land on the other side. The 3A route would bisect this very area. We also see piliated woodpeckers, owls, osprey, blue heron, whip-poor-wills, numerous duck species, using the river as a water and food source. The Zumbro River crossing of the 3A route is in the most original state of natural habitat of all the proposed river crossing sites. The 3A route would cause a disruption to this unspoiled habitat.

**Effects on the natural environment. Including effects on air and water quality resources, and flora and fauna;**

160C • Air quality - route 3A has the largest impact on national forestry, private tree farms, and private woodland and forest. Clear cutting a path for Route 3A would have the largest impact on air quality due to the destruction of the trees and their air filtration capacity.

160D • Water quality – route 3A creates a new river crossing of the Zumbro River which would introduce a new land scar on the face of the bluffs on each side of the river, enabling water run off down these paths. Wabasha County's Bluff Top Initiative and regulation of bluff alterations is to preserve the natural environment and natural state of the bluffs. Other key reasons are for erosion control into the river and reduce run-off into the river from farm land. The narrow river crossing of the other routes could span the river without impact to the bluff side itself beyond what has already been done for the dam or road construction and installation of existing transmission lines.

**Effects on human settlement, including, but not limited to, displacement, noise, aesthetics, cultural values, recreation and public**

**services;**

160E • Aesthetics – route 3A would create a new Zumbro River crossing disrupting the natural state of the river at this crossing location on 3A. This would be the longest scar across the Zumbro River valley of any of the routes selected. Clear-cutting this route would create a new scar down through the wooded river bluff on the west, a very long scar across the river valley floor, then a scar up through the woodland bluff on the east. (Other river crossing routes have much narrower crossing spans and have an existing crossing infrastructure, with the narrowest route crossing having an existing power generating plant/dam with existing transmission lines.) The Zumbro River below the dam is used by hundreds of canoeists and fishermen throughout the summer, and this route would impact their enjoyment of the natural state of the river below the power dam.

160F • Aesthetics/recreation – route 3A would cross scenic Wabasha Cty Road 7 winding through the Zumbro River valley. This route is chosen by many dozens of bicyclers on early weekend mornings, many hundreds of motorcyclists on weekends, and of classic car clubs throughout the summer. This route would impact their enjoyment of the natural state of the river with the scenic views of the river and river valley.

160G • Cultural Values - Route 3A would destroy the natural state of the bluffs of the Zumbro River below the dam. Wabasha County has a Bluff-top Initiative in place that regulates the use of or any alterations to the Zumbro River bluffs, from below the power dam to the Mississippi River, to preserve the natural state of the bluffs. Construction on or alterations of the bluff are not permitted, and not allowed within established parameters back from the bluff top and out from the bluff toe. I would like to see the DEIS include the fact that Wabasha County has these regulations in place for residents and they would ask this same consideration from utility companies.

**Electrical system reliability;**

• Route 3A crosses the Zumbro River below the Rochester Power Dam in Section 15, T109N R14SW of Wabasha County. The power dam is operated by Rochester Public Utilities and is almost 100 years old now. There is concern about possible dam failure in the future, as described below.

Olmsted County and Wabasha County have considered a joint dredging project on the lake above the dam for a number of reasons, including enlarging the holding capacity of the lake to reduce flood impacts and for dam failure concerns. A portion of the November 30, 2010 Wabasha County Board of Commissioners Special Meeting copied here: "WHEREAS, on September 23-24, 2010, heavy rains and flooding occurred on Lake Zumbro and in surrounding areas. This event reinforced the need for added depth to the lake to add water storage capacity in peak flow periods to curtail flooding risks including damage to or possible failure of the Lake Zumbro Dam;"

160H Also, on April 19th, 2011, the Wabasha County Emergency Management office and RPU conducted a meeting for residents below the dam on the Zumbro River. It was an education session to discuss the new Telephone Notification System and warning sirens for residents below the dam in the case of dam failure. Recent updates to the system have just completed to automate and speed up phone warnings with a "robo-call" system, and the fire/tornado siren has a unique siren pattern for dam failure.

It was quite apparent that Wabasha County and Rochester Public Utilities do not consider dam failure an unrealistic possibility, though they believe there are no current issues with the structural integrity of the dam. They assured us that there is on-site continuous monitoring of the dam when the river is at flood stage. They talked at length on the significant flood last fall (2010), and told us that had the river level risen close to another four feet there would have been some concern of dam failure. They showed scary pictures depicting the down stream flood levels in the event of dam failure in a "sunny day scenario" when the river level is normal, and even scarier pictures showing downstream levels in the event of failure with the river already at normal flood stage levels.

The transmission line river crossing on Route 3A would be directly in the path of a cataclysmic flood resulting from failure of the dam. Based on the size of the projected flood shown, there's no doubt in my mind that any power line structures would be wiped out with the wall of water and accompanying debris - negating one of the major reason for this project (system reliability).

**Costs of construction, operating, and maintaining the facility which are dependent on design and route;**

160I • Route 3A crosses the Zumbro River valley at a location where there is a wide valley floor span. This valley floor span is a flood plain that regularly sees flooding (at least once, but usually multiple times in a year) with flood water current at high speeds. Some of these floods can be fairly significant. Construction, on-going operations and any needed maintenance of the line through the

160I  
(cont)

flood plain area of route 3A would be impossible during these very regular flood events.

**Use of existing transportation, pipeline, and electrical transmission systems rights-of-way;**

- Route 3A has no use of existing electrical transmission system rights-of-way other than at the very east end (where all routes share the common line at the Mississippi River crossing.) Other routes use additional existing transmission line ROW. The DEIS includes the common transmission line ROW at the Mississippi river for all routes in the table 8.4.3.11-1, which sort of disguises the fact that route 3A really uses NO existing electrical transmission system ROW on it's own - other than this common line.

160J

**Use of existing large electrical power generating plant sites;**

- Route 3A has no existing large electrical power generating sites - there are routes that have an existing large electrical power generating plant (the Rochester hydroelectric Power Dam) with accompanying transmission lines.

Respectfully submitted,

Paul Mulholland

**160A.**

The location of Native Indian burial sites in section 15 of T109 R14 is noted but was not confirmed in the review of the State Historic Preservation Office records. See Section 7.10.2 of the EIS for further discussion on additional review of cultural resources prior to construction.

**160B.**

See Section 7.7 of the EIS

**160C.**

While trees can absorb certain pollutants from the air, filter it and make it cleaner (see: <http://www.pca.state.mn.us/index.php/living-green/living-green-citizen/yard-and-garden/benefits-of-trees.html>), the tree removal associated with ROW clearing for this Project is very small relative to the total forested area in south/southeastern Minnesota. Therefore, the removal of trees from the ROW is not anticipated to impact regional air quality. Furthermore, the purpose of the EIS is to assess the human and environmental impacts of the alternative routes identified. Air quality impacts associated with tree clearing are expected to be immeasurably small and, therefore, do not provide a useful metric in weighing the viability of one route versus another.

**160D.**

As noted in Section 7.8.7 of the EIS, the construction stormwater general permit (MN R 100001) was re-issued by the PCA on August 1, 2008. Under the re-issued permit an NPDES/State Disposal permit would be required for the construction of this transmission line. The types of activities associated with the construction of powerlines which trigger the need for a stormwater construction permit include ROW clearing, staging areas, access roads, landings for storage of equipment and timber, and other types of activities which disturb soil.

The construction stormwater permit requires the preparation of a project specific pollution prevention plan that identifies controls and practices that would be implemented during construction to prevent erosion. Specific strategies and requirements for controlling erosion will be developed during permitting and will be tailored to the unique erosion challenges that the permitted route presents.

**160E.**

Your objection/preference of the specified route is noted. Your comment is now part of the record in this matter by its inclusion in this EIS, and will be submitted to the Office of Administrative Hearings (OAH) and Commission for consideration. See Section 7.3.1 of the EIS.

Your objection/preference of the specified route is noted. Your comment is now part of the record in this matter by its inclusion in this EIS, and will be submitted to the Office of Administrative Hearings (OAH) and Commission for consideration. See Section 7.3.1 of the EIS.

**160F.**

Your objection/preference of the specified route is noted. The comment is part of the record in this matter by its inclusion in the EIS, and will be submitted to the OAH and Commission for consideration.

**160G.**

Although this ordinance was not specifically mentioned in the EIS, local land use and zoning requirements and plans were provided by the Applicants (Route Permit Application Appendix N), and these plans and ordinances were generally reviewed for consistency with proposed routes.

**160H.**

The EIS does not include a separate analysis of the risk of dam failure and the associated reliability issues. However, final design of any route that crosses at the dam would have to evaluate the issue and may need to evaluate structural requirements in order to comply with NERC requirements. There are numerous places in the state and U.S. where transmission poles are designed and constructed in floodplains or dam areas.

**160I.**

The comment is part of the record in this matter by its inclusion in the EIS, and will be submitted to the OAH and Commission for consideration.

**160J.**

This comment is correct and a factor for the administrative law judge and others to take into account during final route evaluation.

**MAGNETIC FIELDS ARE MUCH HIGHER THAN CAPX UTILITIES ADMIT**

This chart is from the CapX Hampton-LaCrosse application, Chapter 3, Table 3.6-2:

Table 3.6-2:  
Calculated Magnetic Fields (mG) for Proposed 345 kV Transmission Line Designs (3.28 Feet Aboveground)

Structure Type	Geographical Segment	System Condition	Current (Amps)	Distance (Feet)												
				999	200	100	75	50	0	50	75	100	200	500		
Single-Pole Davit Arm 345/345 kV Double-Circuit with one Circuit in Service	Preferred Route: Hampton to Cannon Falls; Non-US-52 segments; Zumbrota area to North Rochester	2015 Peak	140 A	0.36	0.79	2.25	3.41	5.24	13.53	9.64	5.91	3.77	1.04	0.46		
		2015 Average	112 A	0.30	0.53	1.58	2.73	4.19	10.87	7.71	4.71	3.01	0.93	0.37		
	Alternate Route: Hampton to North Rochester	2025 Peak	132 A	0.36	0.74	2.22	3.22	4.94	12.61	9.59	5.95	3.55	0.98	0.43		
		2025 Average	106 A	0.29	0.50	1.75	2.58	3.97	10.29	7.30	4.45	2.85	0.79	0.35		
Single-Pole Davit Arm 345/345 kV with 69 kV Underbuild with 1 Active 69 kV Circuit	Preferred Route: US-52 segments; Cannon Falls to Zumbrota area	2015 Peak	140/325	0.74	1.66	5.20	10.42	20.73	70.89	8.50	3.77	2.51	1.01	0.52		
		2015 Average	112/260	0.59	1.32	4.96	9.33	16.58	56.71	6.00	3.02	2.01	0.91	0.41		
	N. Rochester to Alma	2025 Peak	132/328	0.73	1.62	6.14	10.36	20.71	71.55	9.89	3.62	2.54	0.99	0.50		
		2025 Average	105/262	0.58	1.30	4.91	9.26	16.55	57.37	7.69	3.12	2.03	0.79	0.40		
Single-Pole Davit Arm 345/345 kV Double-Circuit with one Circuit in Service	N. Rochester to Alma	2015 Peak	403 A	1.12	2.33	6.97	10.11	15.54	49.27	26.56	17.44	11.17	3.09	1.35		
		2015 Average	322 A	0.87	1.81	5.41	7.85	12.06	31.24	22.17	13.53	8.67	2.40	1.05		
	N. Rochester to Alma	2025 Peak	415 A	1.12	2.33	6.97	10.11	15.54	49.27	26.56	17.44	11.17	3.09	1.35		
		2025 Average	332 A	0.90	1.87	5.57	8.09	12.43	32.21	22.96	13.95	8.94	2.47	1.08		

161A

Both line front  
in front  
of house  
th Ave NW  
Monaco.

3.02 mG  
Too much!  
12 hours/day  
should be  
2 mG

For the CapX Fargo line, with the same configurations, look at the levels:

CALCULATED MAGNETIC FLUX DENSITY (MILLIGAUSS) FOR PROPOSED 345 kV TRANSMISSION LINE DESIGNS (3.28 FEET ABOVE GROUND) (ASSUMED 600 & 1,000 MVA LOADING)

Structure Type	System Condition	Current (Amps)	Distance (Feet)												
			999	200	100	75	50	0	50	75	100	200	500		
Single Pole Davit Arm 345kV Single Circuit Delta Config	System Max	1000	2.08	6.33	21.28	32.97	54.40	88.83	129.79	112.71	67.90	39.59	23.71	6.27	2.73
	With Added Generation	2500	7.44	15.84	53.20	82.42	136.61	222.07	301.96	291.77	169.74	96.49	59.28	15.67	6.83
Single Pole Davit Arm 345kV Single Circuit Vertical Config	System Max	1000	3.26	7.46	26.96	42.06	68.82	103.97	96.76	60.77	37.34	24.29	16.73	5.60	2.67
	With Added Generation	2500	8.15	18.65	67.39	105.14	172.05	259.93	241.91	151.52	93.34	69.72	45.82	13.99	6.68
Single Pole Davit Arm 345kV/345kV Double Circuit with One Circuit in Service	System Max	1000	2.70	5.62	16.79	24.37	37.45	60.95	97.03	104.17	68.86	42.03	26.92	7.45	3.26
	With Added Generation	2500	6.74	14.06	41.96	60.92	93.64	152.38	242.57	260.42	172.14	105.07	67.20	18.63	8.15
Single Pole Davit Arm 345kV/345kV Double Circuit with Both Circuits in Service	System Max	1000	7.3	2.19	12.38	23.01	45.30	86.76	113.75	87.37	45.85	23.39	12.9	2.25	1.74
	With Added Generation	2500	1.81	5.47	31.44	57.53	113.26	216.89	294.37	218.42	114.62	58.47	32.03	5.51	1.84

**COMMENTS ON THE DEIS ARE DUE APRIL 29, 2011**

The Comments that are due at the end of the month are specifically about the DEIS, what's missing, what isn't taken into account, a very narrow range, so make sure you're on point! For example, NoCapX 2020 and U-CAN think the Office of Energy Security (MOES) must:

Point out homes that are not shown on the maps.

Disclose the full range of potential magnetic fields in all the configurations proposed for this project. See the back of this page.

Address impact of the width of the Right of Way (see DEIS Table 8.4.1-1):

- RoW must be wide enough assure magnetic fields are below 2mG at the RoW edge to protect the health and safety of the public;
- Disclose chart showing width of RoW necessary to assure mG level at 2mG or lower *constant*
- Identify basis for RoW width.

*This is high 2mG is right  
Factor of 10 less*

Comply with the Minnesota Environmental Policy Act:

- Must have more than one completely separate route; and
- Must have more than one river crossing location a Alma (as is being done in the UDEA's Rural Utility Service EIS that is in the works).

Incorporate the Rural Utility Service EIS into the MOES EIS.

Minnesota policy of non-proliferation means that transmission must use shared railroad and highway rights of way. Minn. Stat. §216E.03, Subd. 7(b)(8); (e). MOES conflates Minn. Stat. §216E.03, Subd. 7(b)(8) and 7(b)(9).

- DEIS must identify shared railroad and highway rights of way and tally independently
- DEIS must identify separately from parcel and field boundaries.
- Include maps showing only shared railroad and highway rights of way.
- DEIS must not include or characterize ag land survey lines or other natural division lines as "shared corridor."

Minnesota policy supporting agriculture requires that transmission corridors, if sited on ag land, utilize survey lines or other natural division.

- DEIS must identify separately survey lines or other natural division lines utilized to avoid disruption of agricultural operations.
- DEIS must identify and set out survey lines or other natural division lines separately from railroad and highway rights of way.
- DEIS must not include or characterize ag land survey lines or other natural division lines as "shared corridor."

Send comments by April 29, 2011.

Identify as "DEIS Comments, Docket 09-1448" and send to:

Matthew Langan email by 4:30 p.m. to [matthew.langan@state.mn.us](mailto:matthew.langan@state.mn.us)  
MOES Project Manager  
85 – 7<sup>th</sup> Place East  
St. Paul, MN 55101

Prepared by Carol A. Overland, Attorney at Law - [www.nocapx2020.info](http://www.nocapx2020.info)

# COMMENT FORM

## COMMENTS ON DEIS FOR CAPX 2020'S HAMPTON-ALMA LINE

NoCapX 2020 and United Citizen Action Network are intervenors in the CapX 2020 Certificate of Need, Brookings-Hampton, Fargo-St. Cloud and this Hampton-Alma route dockets. We've been to MANY scoping meetings and have used the siting rules and criteria to offer these suggestions to help your comments count.

The Dept. of Commerce/MOES has requested comments regarding their Draft Environmental Impact Statement (DEIS) – and it's important to remember that as far as the Dept. of Commerce, sponsor of this meeting, is concerned, this comment opportunity is where we address what is or is not in their Draft EIS. To help keep you on point, we've taken the "factors considered" straight from the rules. Think about the areas and issues that concern you and let these categories trigger your thoughts. You don't need to be an expert or know details – just write down the issues that THEY need to investigate! You know your community and what concerns you – that's the issue today!

Please fill this out as best you can and turn in today or send to: [matthew.langan@state.mn.us](mailto:matthew.langan@state.mn.us) or mail: MOES, 85 7th Pl. E., Suite 500, St. Paul, MN, 55101.

To MOES: The following specific issues or facts that I've listed in the categories below are missing or should be more completely addressed in the Final EIS:

161C

A. effects on human settlement, including, but not limited to, displacement, noise, aesthetics, cultural values, recreation, and public services: *12371 18th Ave*  
and Sale of homestead, Proximity of lines effect on value along 18th Ave DW Oronoco 3P-009

161D

would place the line center  $\leq 75'$  from my homestead. Interference with other RF as well as health are a large concern for me. What would be the Gauss levels? Tesla's. Hope you don't choose 3P-009 (18th Ave)

161E

B. effects on public health and safety: At what distance will the lines need to be from my homestead to produce  $\leq 0.2$  micro Gauss? As

161F

opposed to Appliances which are ~~non~~ Non-Continuous, these lines will be constant. At what Hz is this power line transmitted? I think peak Amp is 1265A. Can we get Gauss readings at 75' I mean want to know

161H

C. effects on land-based economies, including, but not limited to, agriculture, forestry, tourism, and mining; Retirement. Was planning on selling in the future

This property. With lines  $\leq 75'$  away from the house I'm not sure that will occur.

161G

D. effects on archaeological and historic resources; None

*Homestead owner*  
*4/21/2011*

E. effects on the natural environment, including effects on air and water quality resources and flora and fauna; I know ~~about~~ the line with atrack radon, but produces ozone. probably more radon in my basement.

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F. effects on rare and unique natural resources;

*None*

161I

G. application of design options that maximize energy efficiencies, mitigate adverse environmental effects, and could accommodate expansion of transmission or generating capacity;

*I'd think avoiding the lake region would be best.*

161J

H. use or paralleling of existing rights-of-way, survey lines, natural division lines, and agricultural field boundaries;

*Currently a 69kV line ~~runs~~ runs along the road in front of house. Would this mean both the 69kV + 345kV line would run in front on my house? How much Amperage ~~runs~~ runs + how much whould ~~more~~ Gauss aggregate be?*

I. use of existing large electric power generating plant sites;

*Na*

161J

J. use of existing transportation, pipeline, and electrical transmission systems or rights-of-way;

*The 3P-009 use of existing ROW would put 6 house (18th Ave DW Oronoco) on this route w/in  $\leq 75'$  of two lines.*

161K

K. electrical system reliability;

*Current system seems very reliable.*

161L

L. costs of constructing, operating, and maintaining the facility which are dependent on design and route;

*I'm confident the cost of these lines is significant. Let's keep the personal (Impact) costs minimal, by avoiding ~~homesteads~~ Homesteads.*

M. adverse human and natural environmental effects which cannot be avoided; and

N. irreversible and irretrievable commitments of resources.

*None*

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## FEIS ID #161

**161A.**

The maximum calculated magnetic field at the edge of the ROW under the highest anticipated loading conditions at some point in the future (assumed 600 MVA loading) for sections of the line built at a 345/345/69kV triple circuit would be 5.06 mG. This value is below all state established guidelines for magnetic fields at the edge of transmission ROW at indicated in Table 7.1.1.2-4 of the EIS.

**161B.**

Magnetic field standards are identified in Table 7.1.1.2-4 of the EIS.

**161C.**

See Section 7.2 of the EIS.

**161D.**

See Section 7.9 of the EIS.

**161E.**

See Section 7.1 of the EIS.

**161F.**

Magnetic field standards are identified in Table 7.1.1.2-4 of the EIS.

**161G.**

We are not aware of any studies or evidence that support the proposition that transmission lines attract radon.

**161H.**

See Section 7.2 of the EIS.

**161I.**

Your objection/preference of the specified route is noted. The comment is part of the record in this matter by its inclusion in the EIS, and will be submitted to the OAH and Commission for consideration.

**161J.**

The EMF values shown in Section 7.1 of the EIS include the cumulative results of the given structure/line configuration. The structure type/configuration is identified along with the corresponding electric or magnetic field value.

**161K.**

The need for this transmission line has been previously determined by the Minnesota Public Utilities Commission (Docket No. CN-06-1115). Questions of need for this project cannot be addressed in this document, Minn. Stat. 216E.02, Subp. 2.

**161L.**

The comment is part of the record in this matter by its inclusion in the EIS, and will be submitted to the OAH and Commission for consideration.

**LEE A. NAUSS**

57227 406<sup>th</sup> Avenue  
 Mazeppa, MN 55956  
 Home: 507-843-2684 Cell: 507-250-6900

**Mailing Address:**  
 P. O. Box 46  
 Oronoco, MN 55960  
 Email: lanvqm@gmail.com



April 15, 2011

Mr. Matthew Langan  
 Minnesota Dept. of Commerce  
 85 7<sup>th</sup> Place East  
 Suite 500  
 St. Paul, MN 55101-2198

Dear Mr. Langan:

Reference: CapX Hampton-Rochester-La Crosse Transmission Line Project  
 Public Comment Sheet

We attended the CapX 2020 meeting in Plainview on April 12, 2011. You asked for concerns on the line locations.

My comments in regard to the Rochester to La Crosse part of the line are as follows:

- The first concern is in Mazeppa Township Section 27 where the proposed line travels along the hill within approximately 200 feet from our home, a rental cabin and other buildings before it crosses the Zumbro River. Approximately two hundred feet south of the proposed line and running parallel to it, is an approved airplane landing strip.
- There are two summer fishing areas that would be affected, one about 200 feet from the line and another one under the lines. The line to the west of our house crosses a pasture where there are usually 80 cow/calf units during the summer and fall months.
- The second concern is with the same line in Oakwood Township Section 27 where the line crosses my farm, where I am trying to establish a wildlife refuge and forest preserve. The line would also cross a natural drainage area that should be maintained in water/soil holding vegetation/trees to decrease the erosion problem.
- I believe the most acceptable line location would be along the highway right-of-way. It could go from Rochester along US 52 to I-90 to La Crosse. It would not require obtaining further land and develop owner's hard feeling and loss of investment. Building and maintenance would be more accessible and therefore less expensive.

I would hope that you would seriously consider these potential problems and build the line in another area.

Thank you,

*Lee A. Nauss*  
 Lee A. Nauss

**Enclosures:**  
 (2) Enlarged photos of line segments

F:\002 LETTERS & MEMOS  
 110415 LTR LAN-CapX Hampton-Rochester-  
 La Crosse Transmission Line Project

162A

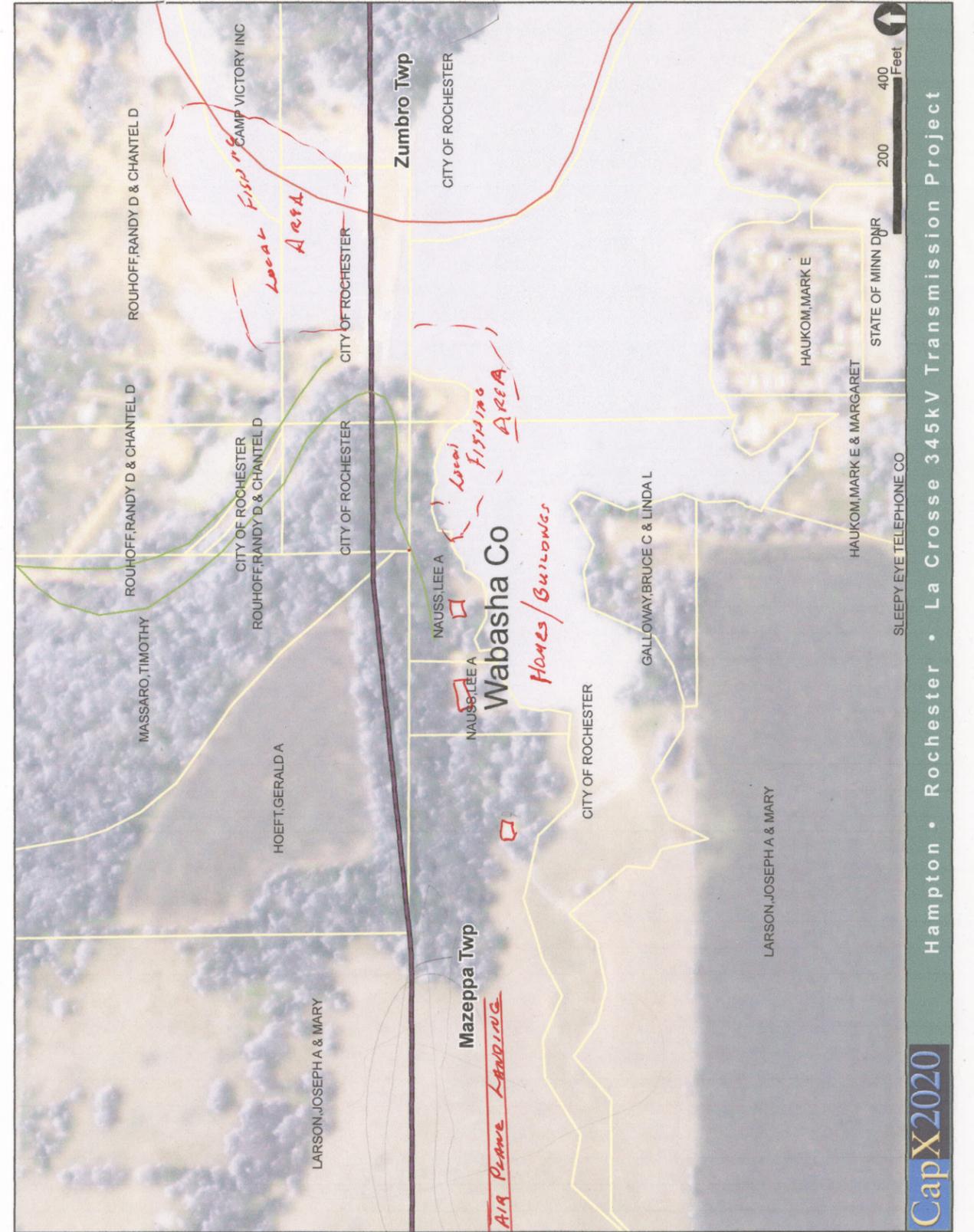
162B

162C

162D

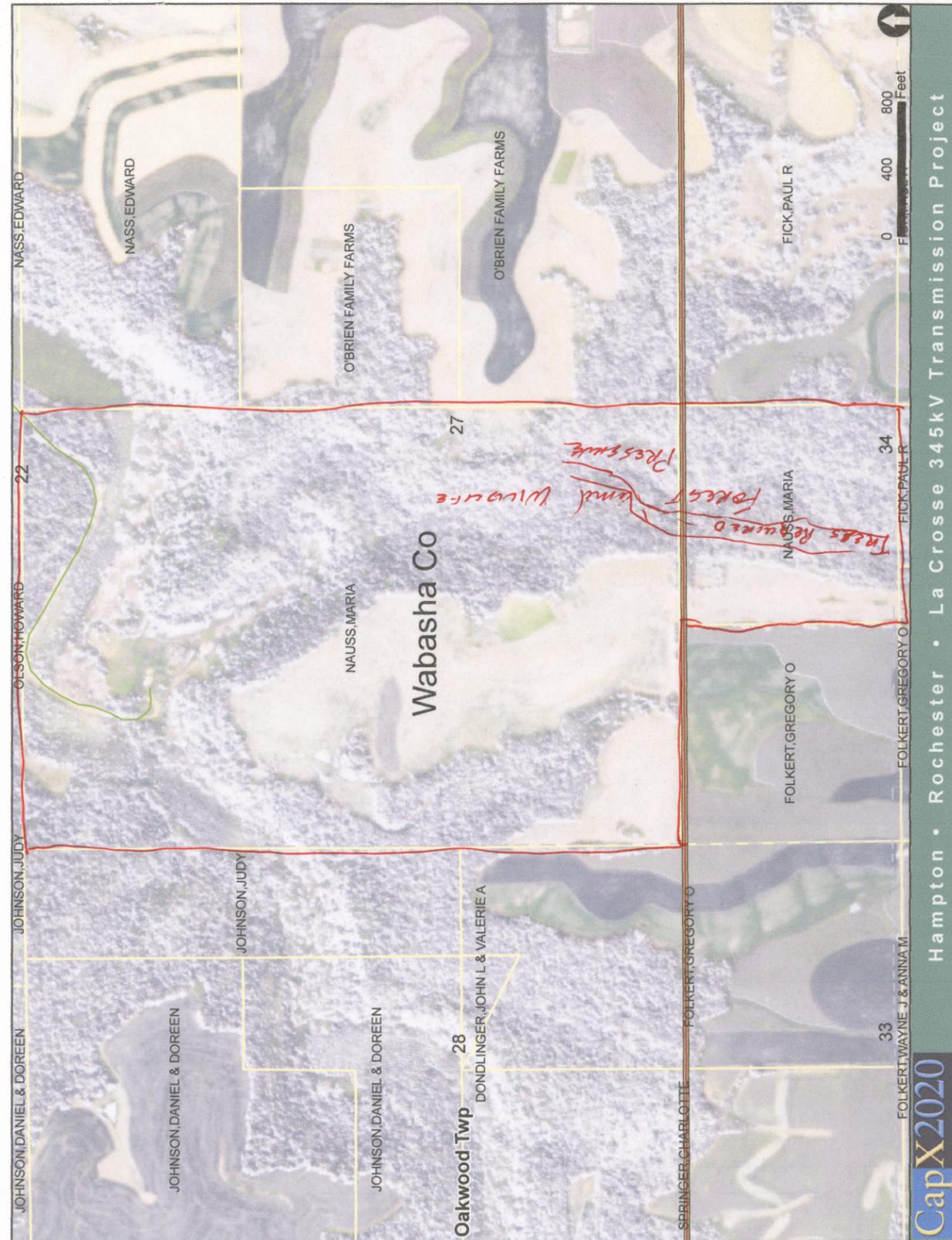
162E

162F



Hampton • Rochester • La Crosse 345kV Transmission Project





**162A.**

The location of your landing strip is noted however is not listed in the 2011 Directory of Minnesota's public airports published by the Minnesota Department of Transportation, Office of Aeronautics. The airports considered in this EIS are those listed by the DOT as public airports and are discussed in Section 7.11 of the EIS.

**162B.**

The comment is part of the record in this matter by its inclusion in the EIS, and will be submitted to the OAH and Commission for consideration.

**162C.**

See Section 7.5.1 of the EIS.

**162D.**

The comment is part of the record in this matter by its inclusion in the EIS, and will be submitted to the OAH and Commission for consideration.

**162E.**

The comment is part of the record in this matter by its inclusion in the EIS, and will be submitted to the OAH and Commission for consideration.

**162F.**

Your objection/preference of the specified route is noted. The comment is part of the record in this matter by its inclusion in the EIS, and will be submitted to the OAH and Commission for consideration.



STATE OF MINNESOTA PUBLIC UTILITIES COMMISSION

Date: 4/18/2011

Public Comments Received by the Public Utilities Commission for week ending: 4-15-2011

Docket Number 09-1448

www.puc.state.mn.us

PHONE (651) 296-7124 • 800-657-3782 • FAX (651) 297-7073 • 121 7TH PLACE EAST • SUITE 350 SAINT PAUL, MINNESOTA 55101-2147

09-1448

April 2, 2011

Commissioner J. Dennis O'Brien  
Minnesota Public Utilities Commission  
121 7<sup>th</sup> Place E., Suite 350  
St. Paul, MN 55101-2147

RE: CapX2020 – Alternative Route

Dear Mr. O'Brien,

This letter is regarding the utility proposed to construct a transmission line across our farmland properties located Wabasha County, Minnesota:

Oakwood Plat, Township 109N, Range 12 W, Section 25  
Oakwood Plat, Township 109N, Range 12 W, Section 26  
Highland Plat, Township 109N, Range 11 W, Section 30

We understand that our properties have now been chosen as the alternative route for this transmission line. We stand opposed to this proposal based on **MPUC DOCKET NO. E-002/TL-09-1448, ANALYSIS OF THE DIRECT AND INDIRECT ECONOMIC IMPACT OF PROPOSED SITES AND ROUTES INCLUDING, BUT NOT LIMITED TO, PRODUCTIVE AGRICULTURAL LAND LOST OR IMPAIRED.**

163A

We currently farm 1063 acres located in Wabasha County, where we raise crops which include corn and soybeans. We also raise sweet corn and peas for a local food processing plant; Lakeside Foods of Plainview, MN. We also have our dairy facility located in Section 25, where our son and his wife are currently milking dairy cows and raise livestock replacements. They are currently selling their milk to Plainview Milk Products. We fear that the construction of a transmission line would result in loss of agricultural land, loss of milk production, loss in animals, thus costing financial hardship. This impact would not only affect our farming business, but would also impact our community as well, as we continue to shop and render services locally within our community.

Thank you,

Richard F. Olson  
57419 N County RD 8, Plainview, MN 55964  
(507)534-3462

Elizabeth A Olson

FEIS ID #163

**163A.**

Your objection/preference of the specified route is noted. The comment is part of the record in this matter by its inclusion in the EIS, and will be submitted to the OAH and Commission for consideration.



85 7th Place East, Suite 500, St. Paul, MN 55101-2198  
main: 651.296.4026 ny: 651.296.2860 fax: 651.297.7891  
www.commerce.state.mn.us



**PUBLIC COMMENT SHEET**

**CapX Hampton-Rochester-La Crosse Transmission Line Project**

PUC Docket Number: E002/TL-09-1448

Name: Elizabeth Olson Representing: Richard + Elizabeth Olson - T109-R12-Sec 25+26  
T109-R11-Sec 30

Address: 57419 N County Rd 8, Plainview MN 55964 Email: Liz.olson@tncplainview.com

**Comments:**

We understand that the transmission line project has chosen our property as an alternative route. We stand opposed to this proposal based on MPUC Docket No. E-002/TL-09-1448, Analysis of the Direct and indirect Economic Impact of Proposed sites and routes including, but not limited to, productive agricultural land lost or impaired. We currently farm 1063 Acres where we raise soybeans, corn, sweet corn, peas & hay. We also have a milking facility which we rent to our son & his wife. Where they milk dairy cows, and raise replacement livestock. We fear the construction of a transmission line would result in loss of agricultural land, loss of milk production, loss of animals, thus costing financial hardship. This impact would effect both our farming business, or son's dairy busn. as well as local vendors & merchants.

164A

Please submit comments by 4:30pm, April 29, 2011 to:

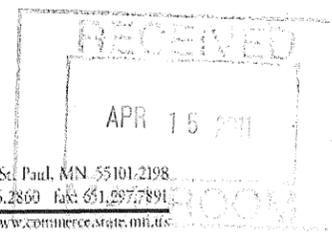
Matthew Langan  
Minnesota Dept. of Commerce  
85 7<sup>th</sup> Place East  
Suite 500  
St. Paul, MN 55101-2198

Email: matthew.langan@state.mn.us  
Phone: 651-296-2096  
Fax: 651-297-7891

Thank you  
Liz Olson



85 7th Place East, Suite 500, St. Paul, MN 55101-2198  
main: 651.296.4026 ny: 651.296.2860 fax: 651.297.7891  
www.commerce.state.mn.us



**PUBLIC COMMENT SHEET**

**CapX Hampton-Rochester-La Crosse Transmission Line Project**

PUC Docket Number: E002/TL-09-1448

Name: Richard F Olson Representing: Richard + Elizabeth Olson

Address: 57419 N County Rd 8 Plainview MN 55964 Email: Richard.olson@hotmail.com

**Comments:**

I understand that my property located in Oakwood Plat, Township 109 N, Range 12 West, Section 25 + 26, and Highland Plat, Township 109 N, Range 11 West, Section 30, have been chosen as an alternative route for the transmission lines. We stand opposed to this proposal based on MPUC Docket No. E-002/TL-09-1448, Analysis of the direct and indirect economic impact of proposed sites and routes including, but NOT limited to, productive agricultural land lost or impaired. We currently farm 1063 acres where we raise corn, soybeans, sweet corn, & peas. We also milk cows & raise replacement livestock. We fear this construction of a transmission line would result in loss of agricultural land, loss of milk production, loss of animals, thus costing financial hardship. This impact would effect both our farming business as well as local merchants. Thank you

164B

Please submit comments by 4:30pm, April 29, 2011 to:

Matthew Langan  
Minnesota Dept. of Commerce  
85 7<sup>th</sup> Place East  
Suite 500  
St. Paul, MN 55101-2198

Email: matthew.langan@state.mn.us  
Phone: 651-296-2096  
Fax: 651-297-7891

Richard Olson

FEIS ID #164

April 2, 2011

Matthew Langan  
 State Permit Manager  
 Office of Energy Security  
 85 7<sup>th</sup> Place East, Suite 500  
 St. Paul, MN 55101-2198

RE: CapX2020 – Alternative Route

Dear Mr. Langan,

This letter is regarding the utility proposed to construct a transmission line across our farmland properties located Wabasha County, Minnesota:

Oakwood Plat, Township 109N, Range 12 W, Section 25  
 Oakwood Plat, Township 109N, Range 12 W, Section 26  
 Highland Plat, Township 109N, Range 11 W, Section 30

We understand that our properties have now been chosen as the alternative route for this transmission line. We stand opposed to this proposal based on **MPUC DOCKET NO. E-002/TL-09-1448, ANALYSIS OF THE DIRECT AND INDIRECT ECONOMIC IMPACT OF PROPOSED SITES AND ROUTES INCLUDING, BUT NOT LIMITED TO, PRODUCTIVE AGRICULTURAL LAND LOST OR IMPAIRED.**

We currently farm 1063 acres located in Wabasha County, where we raise crops which include corn and soybeans. We also raise sweet corn and peas for a local food processing plant; Lakeside Foods of Plainview, MN. We also have our dairy facility located in Section 25, where our son and his wife are currently milking dairy cows and raise livestock replacements. They are currently selling their milk to Plainview Milk Products. We fear that the construction of a transmission line would result in loss of agricultural land, loss of milk production, loss in animals, thus costing financial hardship. This impact would not only affect our farming business, but would also impact our community as well, as we continue to shop and render services locally within our community.

Thank you,



Richard F. Olson  
 57419 N County RD 8, Plainview, MN 55964  
 (507)534-3462



Elizabeth A Olson

**164A.**

Your objection/preference of the specified route is noted. The comment is part of the record in this matter by its inclusion in the EIS, and will be submitted to the OAH and Commission for consideration.

**164B.**

Your objection/preference of the specified route is noted. The comment is part of the record in this matter by its inclusion in the EIS, and will be submitted to the OAH and Commission for consideration.

**164C.**

Your objection/preference of the specified route is noted. The comment is part of the record in this matter by its inclusion in the EIS, and will be submitted to the OAH and Commission for consideration.

164C

**Langan, Matthew (COMM)**

**From:** sddotte@frontiernet.net  
**Sent:** Friday, April 29, 2011 2:29 PM  
**To:** Langan, Matthew (COMM)  
**Subject:** CapX Hampton-Rochester-LaCrosse Transmission Line Project

Matthew Langan  
 Minnesota Department of Commerce  
 85 7th Place East  
 Suite 500  
 St. Paul, MN 55101

Re: Public comment Sheet - PUC Docket Number: E002/TL-09-1448

Dear Mr. Langan,

I have been hearing a lot about the CapX project and honestly have felt that my voice would not be worth listening to. But I would like to take a few minutes of your time to tell you the possible impact that the CapX project would have on my life.

My wife and I and our three sons own and operate a fifth generation dairy farm. Our facility is located in Section 30 & 32 of Hampton Township in Dakota County (map #2 on the proposed line map). We are currently milking 500 cows on a dairy located 2/3 of a mile from the proposed line. We also raise all of our youngstock (500 heifers) on a farm that is located directly under the proposed line.

165A

We take a lot of pride in the fact that we have a high quality, high producing dairy herd. Along with my family we have 10 employees who depend on us for their livelihood. My oldest son is currently in college and my other two sons are in high school. All three have shown great interest in continuing and expanding our business.

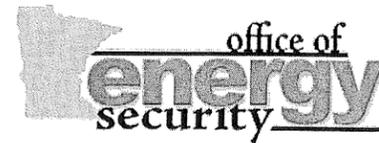
Our main concern, which I know will not surprise you, is stray voltage. Since the topic of stray voltage has come to light in the early 1980's, utilities and dairy producers have been duking it out. As you know cows are extremely sensitive to stray voltage. They are creatures of habit and a good producer will know when something is wrong. Symptoms to watch for are: cows that hesitate to enter the parlor, stamping or dancing of their hooves, loss of appetite, udder irritation, decrease in feed and water consumption, inability to conceive and the decrease in milk production. Our farm has decades of production, feed, and reproduction records. I feel that by observing my cows and trusting my records I will know if something is wrong.

Please feel free to contact me if you have any additional questions. Thank you and I appreciate your considering this information when making your decision.

Sincerely,  
 Blake Otte  
 Square Deal Dairy

**165A.**

See Section 7.1 of the EIS.



85 7th Place East, Suite 500, St. Paul, MN 55101-2198  
 main: 651.296.4026 tty: 651.296.2860 fax: 651.297.7891  
 www.commerce.state.mn.us

## PUBLIC COMMENT SHEET

### CapX Hampton-Rochester-La Crosse Transmission Line Project

PUC Docket Number: E002/TL-09-1448

Name: Jerald A Otte Representing: Land owner -  
- St. Marks Lutheran Church

Address: 29105 DUNCAN AVE Email:  
RANDOLPH, MINN - 55065

Comments: The Hampton to Randolph route  
would be within 1/2 mile of 500 Cow  
Dairy - And also out the back door  
of St. MARKS LUTHERAN Church which  
166A serves 130 families with 130 children  
- North of Randolph on Hwy. 56 -

Stray Voltage is a concern for both  
cattle and people

Seems this project should start in  
the Rochester - La Crosse area -

Please submit comments by **4:30pm, April 29, 2011** to:

Matthew Langan  
 Minnesota Dept. of Commerce  
 85 7<sup>th</sup> Place East  
 Suite 500  
 St. Paul, MN 55101-2198

Email: [matthew.langan@state.mn.us](mailto:matthew.langan@state.mn.us)  
 Phone: 651-296-2096  
 Fax: 651-297-7891

166A.

See Section 7.1 of the EIS.



April 26, 2011

Office of Energy Security, MN Department of Commerce  
 Matt Langan, State Permit Manager  
 85 7th Place East, Suite 500  
 St. Paul, MN 55101-2198

RE: CapX2020 Hampton-Rochester-La Crosse 345kV and 161kV Transmission Line Project (PUC  
 Docket No. E002/TL-09-1448)  
 Draft Environmental Impact Statement Comments Regarding Segment 3

Dear Mr. Langan,

The proposed "preferred route" of CapX2020 (Route 3P; DEIS) runs a 345k transmission line directly through our property. This letter serves as formal written notice to you of our opposition to the 3P line. Our family has been in contact with your office both in writing and verbally and has made several suggestions and oppositions to the 3P route. Many of those are addressed formally in this letter.

- **Understated Homes in Proximity of Route Alternatives in the DEIS Report:**

As noted and on record verbally as a Public Comment, our home was not included in the number of homes impacted. At the meeting, our home area map was pulled up and distance from 3P;DEIS was charted and revealed our home being within 500 feet of 3P;DEIS. All numbers of homes affected are incorrectly understated the DEIS for the "preferred route" (3P;DEIS), except certain alternative options running off of 3P in our direct vicinity.

The direct and critical impacts to our property, family, living environment, natural resources and livelihood are listed below and include but are not limited to (in no particular order):

- **Health and Safety:** There is substantial evidence that exposure to electric and magnetic fields (EMF) of an average intensity doubles the risk of a child contracting leukemia. There is also evidence that even momentary exposure to EMF fields increase the risk of miscarriage in women within the first 10 weeks of pregnancy. There are studies that these fields are linked / associated with other diseases such as brain cancer, Lou Gehrig's disease (ALS) and adult leukemia. Our family consists of a Husband, Wife and 6-year old twin boys who spend countless hours on our property enjoying the outdoors. It is our concern that our family's safety and health will be put at risk by EMF exposure.

- **Property Values:** If this massive, 17-story string of transmission lines is placed upon our property or even in viewable distance, our property will be devalued substantially. Like many Americans, a large percentage of our personal net worth is centered in our homestead. We live in the country on 35-acres. We purchased our property in 2004 (after searching for the perfect location and acreage for our plan for four years prior) and built our dream home upon it. Our home's value is determined by what another is willing to pay for it. Today, the best estimate we have of that is the range of our tax assessed value of \$384,700. We've had appraisals prepared in the last six years that indicate the market value well above that. Our home has a driveway that's 0.3 miles in distance. Our home sits where we don't see any roads; we don't see any other houses. We see and hear the country. Yet, we're 10 miles to Rochester (a city of 100,000+ with employment, shopping and entertainment) and within a 15-minute reach of anything we may need. Those two factors (together) are the strongest appeal to the marketplace.

That appeal is what the marketable value of our home is comprised of. The actual structure of our home has an average square footage and amenities. But, the potential market value of our home is based on a buyer who wants OUR home—no roads, no houses, just nature. If you establish a 17-story power-line on our property you not only eliminate any equity we have in our home but in our estimation, you likely put us under-water with our existing mortgage.

When we made the decision to purchase the land and build a home (a lifetime home for us) we did so under the premise of this valuation method. As such, our mortgage company in turn made the decision to lend on collateral value based on the property as it sits. The installation of transmission lines will devalue our property by approximately 80-100% because it's unique and provides a country "niche" to a potential purchaser. A power line in the front or backyard of our home makes it completely unmarketable and unsellable. Even if the route you choose is on one of the branched alternative routes to the 3P route in our immediate area (3P-006 and 3P-011), the devaluation will be financially devastating.

Recall, we live in a community comprised of more health professionals per capital than anywhere in the country. Those are who comprise our market. They're more than aware than a general marketplace of the health risks associated with power lines.

Our per-acre value / appeal is primarily based on our country setting, yet in close proximity to Rochester. It is a fact that the farther away in distance you get from Rochester, the less valuable your land is (as a homestead). If CapX2020 has proposed two alternative routes (3A and 3P- Zumbro-N, DEIS) that are both farther away from the city (on the basis that they will purchase easements or direct purchase land from property owners) how can there be an advantage to the "preferred route (3P, DEIS)" option? In a period of substantial housing devaluation nation-wide, our tax assessed value has increased 14% over the past two years.

167A

167B

167C

This increase is due in whole to the value of the land increasing. There is no indication in the DEIS or in reality that the land values of the other two routes (3A and 3P-Zumbro-N) are increasing in the same fashion or at all.

167D

- **Agriculture:** Our property contains 27 acres of tillable land that we rent out to a neighboring farmer. That farmer plants corn on our property each year and pays us annual rent. When plowing, planting, harvesting and tilling with very large equipment, the added work, time, effort, threat and risks to the farmer will very likely outweigh the benefit of renting the acreage. The farmer will simply rent the land available across the road from us. That farm rental income pays our property tax bill on our homestead and is a critical component to our personal finances.

167E

- **Natural Resources:** 250 feet north (from our deck and backdoor) lies a beautiful grove of oak trees surrounding a natural pond. This is part of an area considered with MCBS Biodiversity Significance of "Moderate Significance" as stated in the DEIS report. We enjoy the wildlife in abundance all-year-around in deer, fox, eagles, ducks, geese, wild turkeys, pheasants, numerous song-birds and even a cougar has been seen on our property. We plant and provide food for the aforementioned animals and they're part of our livelihood. The "preferred route (3P; DEIS)" is written to be constructed right down the middle of that part of our property as shown in the attached map. We'd have to learn to enjoy the view of power lines, because there won't be the wildlife we currently enjoy here anymore. No oak grove for protection plus no water supply equals no wildlife habitat. The environmental wildlife habitat in abundance on our property will be eliminated. We consider these environmental impacts severe for the "preferred route (3P; DEIS)". The DEIS doesn't address the direct costs or intention of tree replacement or construction issues (including wetlands crossed, soils and access plans) for each route or route alternative.

167F

- **Socioeconomic Setting / Impact:** In less than a 1-mile square radius of our home on the "Preferred Route (3P; DEIS)" setting, the plan is directly affecting seven other homes and families in many of the same ways it's affecting ours. When we have open fields and less populated land areas in abundance within a 5 mile square radius around us, why choose to run the lines directly through peoples' lives?

167G

**In specific: IF THE COMMISSION DETERMINES THE "PREFERRED ROUTE (3P;DEIS)" IS THE DESIRED ROUTE, PLEASE CONSIDER THE 3P-007;DEIS ALTERNATIVE ROUTE FOR THE FOLLOWING REASONS:**

1. Route 3P as written (through the 1.5 mile stretch that includes our home) directly affects seven homes due to the route being drawn north of White Bridge Road. Four of those

167H

seven homes are within 500 feet (including our home, which isn't counted in the DEIS as within the 500 feet radius). Route 3P-007 as suggested directly affects ZERO homes and only crosses two landowner's properties, rather than several affected on the 3P route as-written.

2. Route 3P as written (through the 1.5 mile stretch that includes our home) runs directly through a wooded area considered with MCBS Biodiversity Significance of "Moderate Significance" as stated in the DEIS report. Route 3P-007 as suggested affects NO MCBS Biodiversity Significant areas as noted in the report.
3. Route 3P-007 appears to lengthen the 3P route by less than two miles. However, it is a logical and small impact to Excel Energy for the huge impact of effecting less property owners, less homeowners, less overall inhabited dwellings and significantly less environmental impact (as researched by the DEIS).

167I

In closing, we receive NO BENEFIT from this powerline, yet stand to lose everything our family has worked our entire lives to build. We purposely paid for a very long and expensive driveway with UNDERGROUND electricity on our property so that our children can safely fly kites and remote control aircraft. We plan to live in this house, on this land for the rest of our lives. We're raising our children here. Our property is not for sale or available for easement in any way, shape or form. This is our home. In this great Country, we've built our American Dream. You cannot ethically, morally or in good-conscience service other "supposed needs" by sacrificing our dream and way of life in the process.

Thank you,



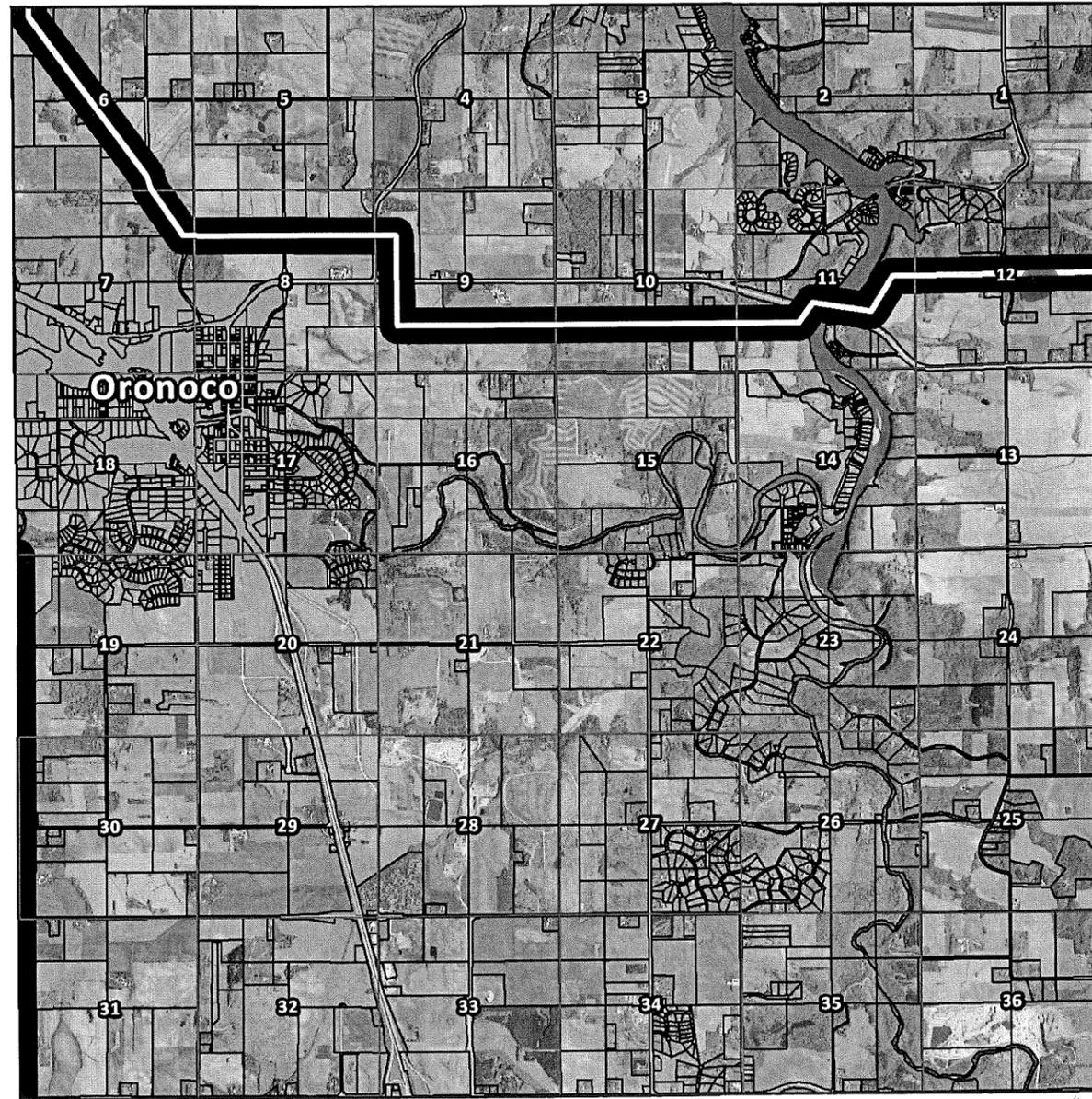
Jason Ottman



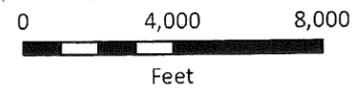
Sara Ottman

1485 White Bridge Rd NE  
 Rochester, MN 55906  
 Oronoco Township  
 507-753-9912

# Ottman ORONOCO TOWNSHIP



Date: 4/12/2011



 Preferred Route

*Ottman*



CapX2020

Hampton • Rochester • La Crosse 345kV Transmission Project

## FEIS ID #167

**167A.**

The house location was updated in the GIS shapefile and is shown in updated Appendix A maps and Table 8.3.4.3-1

**167B.**

See Section 7.1 of the EIS.

**167C.**

The comment is part of the record in this matter by its inclusion in the EIS, and will be submitted to the OAH and Commission for consideration.

**167D.**

It is true that high-voltage powerlines conflict with farming, as pointed out throughout the EIS. On routes through farming areas, the applicant would work with farmers/land owners to minimize construction impacts, pay for damages, and work together on pole placement to minimize problems as much as possible.

**167E.**

See Section 8.3.4.7 of the EIS.

**167F.**

The comment is part of the record in this matter by its inclusion in the EIS, and will be submitted to the OAH and Commission for consideration.

**167G.**

Your objection/preference of the specified route is noted. The comment is part of the record in this matter by its inclusion in the EIS, and will be submitted to the OAH and Commission for consideration.

**167H.**

Your objection/preference of the specified route is noted. The comment is part of the record in this matter by its inclusion in the EIS, and will be submitted to the OAH and Commission for consideration.

**167I.**

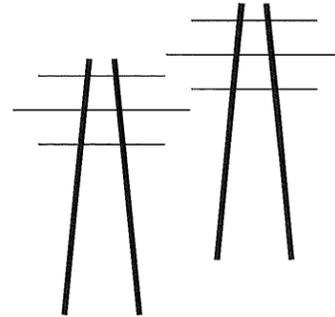
The comment is part of the record in this matter by its inclusion in the EIS, and will be submitted to the OAH and Commission for consideration.

**Legalelectric, Inc.**

**Carol Overland** Attorney at Law, MN #254617  
 Energy Consultant—Transmission, Power Plants, Nuclear Waste  
 overland@legalelectric.org

P. O. Box 176  
 Red Wing, Minnesota 55066  
 612.227.8638

P. O. Box 69  
 Port Penn, Delaware 19731  
 302.834.3466



April 29, 2011

Matthew Langen  
 EFP Project Manager  
 Dept of Commerce  
 85 – 7<sup>th</sup> Place East, Suite 500  
 St. Paul, MN 55101

via email – matthew.langan@state.mn.us  
 eFiled & eServed

RE: DEIS Comments – NoCapX 2020 & United Citizen Action Network  
 In the Matter of the Application for a Route Permit for the CapX 2020 Hampton-  
 Rochester-LaCrosse High Voltage Transmission Lines  
 OAH Docket No.: 3-2500-21181-2  
 PUC Docket No.: E002/TL-09-1448

Dear Mr. Langen:

I am sending this EIS Comment on behalf of NoCapX 2020 and United Citizens Action Network.

NoCapX 2020 and United Citizen Action Network make the following comments regarding the Draft Environmental Impact Statement for the Hampton-LaCrosse transmission line.

1. Proliferation of transmission corridors must be carefully avoided as required by PEER, and each of the distinct corridors must be specifically evaluated for proliferation impacts.
2. DEIS, p. 8, Costs are not sufficiently specific to determine increased costs due to environmental factors such as terrain or wetlands, savings due to salvage costs for lines that are underbuilt, etc.
3. DEIS, p. 21, states, “[t]he Kellogg crossing is the only crossing of those evaluated that follows an existing transmission line corridor through the blufflands in Minnesota.” This is false. The EIS must be corrected to reflect that there are at least FOUR other

168A

168B

168C

168C  
(cont)

168D

168E

168F

168G

sites where transmission lines follow an existing transmission line corridor through the blufflands. There are three in the Winona/Goodview area and one at LeCrescent:

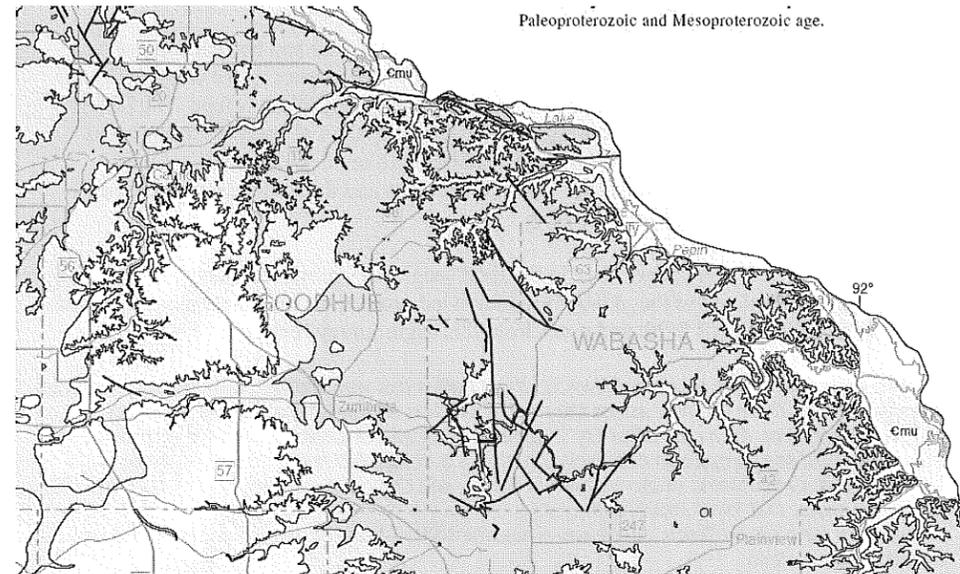


For mo  
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4. DEIS, p. 21, states regarding the LaCrescent crossing that “Route options may not be feasible due to potentially unpermissible wetland impacts and/or displacement of businesses.” The EIS must be changed to reflect that displacement of residences is a statutory/rule criteria and factor, but displacement of businesses is not.
5. DEIS, p. 21 states that “the applicant determined that the crossing at Alma, Wisconsin (Kellogg crossing), just east of Kellogg, Minnesota would best minimized potential human and environmental impacts.” This is not a determination for the applicant to make, nor is it appropriate for the Applicant to remove, and for the state to accept removal, of other river crossing alternatives. The EIS must have more than on proposed river crossing.
6. The DEIS section on karst is in “Land Use,” and karst is not land use. This section belongs in a discussion of geological features, natural resources, or some such.
7. DEIS p. 40, addresses karst, and possibility of sinkholes, stream sinks and/or springs, but it is not specific enough regarding the prevalence of karst in the SE Minnesota area. When NSP was siting nuclear waste “in Goodhue County” there were only two

168G  
(cont)

places deemed sufficiently lacking in karst to site nuclear waste. I would think that there are similar stability issues for putting in 50+ foot foundations for structures. Attached as Exhibit A is a true and correct copy of the Minnesota Geological Survey map of Minnesota bedrock. The project area is cut and pasted below, and is obviously nearly all subject to karst:



168H

8. The narrative regarding karst refers only to sinkholes, but those are only the surface manifestation of karstic conditions, which exist throughout SE Minnesota. Sinkholes appear regularly in the area, some are marked on the DEIS maps -- but that does not mean that these identified sinkhole areas are the only areas that are karst, that are prone to karstic conditions, or that should be avoided.
  - a. The EIS must disclose areas subject to karstic conditions;
  - b. The EIS must address range of impacts of placement of transmission structures with large underground foundations in karst, karst areas, near an area that develops a sinkhole, in stream sinks, ponds, etc.

168I

9. DEIS, p. 40, Agriculture under "Land-Based Economies, should address Minnesota's policy of agricultural preservation (Minn. Stat. §17.80) and whether and how this project complies with those policies.

168J

10. DEIS §8.1.4.5, §8.2.4.5 and §8.3.4.5 must address compliance with Minn. Stat. §17.80 policy of agricultural preservation.
11. DEIS, p. 41, Aerial Crop Spraying/Dusting does not identify or address take off and landing areas for aerial crop spraying and dusting.

168K

12. DEIS must list all airports in project area, public and private.
13. DEIS must address impacts on all airports, public and private. While the DOT has jurisdiction over only public airports, that does not mean that impacts on only public airports matter.
14. DEIS, p. 23, p. 47, et seq., Attached as Exhibit B is a true and correct copy of USFWS comment dated 2/19/08, which notes that there is an active eagle nest in or adjacent to the existing powerline on the Minnesota side of the refuge. The DEIS quotes from the 2/19/08 letter regarding issues with the LaCrescent crossing and proximity to an eagle nest but does not address the same issue with the Alma crossing. The must address the USFWS concerns and the existence of eagle nests and proximity to the Alma crossing.
15. A recent (this week) drive-by "in the field" eagle survey was conducted by USFWS this week, related to the AWA Goodhue wind project, which is near areas included in DEIS maps NR 8-20, and notes from this eagle survey revealed:

168L

*We started out at the nest off of Hwy 52: three babies this year and last, with two each previous year for YEARS. There is a nest across the road, which was also pointed out to the Biologists. We were looking for a nest off of Cty 7, somewhere near Rick Conrad's domaine, and didn't see the nest but did see an eagle so at a minimum, that is a designated hunting/perching area. We stopped at Chad Ryan's, where I stayed in the car and Chad, I'm sure, told them about the numerous eagles that loiter about his property. We saw the birds by Tom's, which was a nest the USFWS knew of, but did not know if it was inhabited again. It is. We headed down another gravel road, I am told it was a "short cut", when I commented that it would be really nice if the eagles would cooperate and fly low over the car for us. One of my scouts/navigators said, "What's that?" and pointed left. We all looked and there was the bald eagle we'd called for, standing on a rise in the field, looking rather majestic despite the inclement weather. We continued on down toward Ann's house and from the distance saw another nest that, as far as we knew, no one had yet mentioned. I began to do my "eagle call" for help and then said, "I wonder if anyone knows if it's inhabited?" Almost as if on que, a glorious bald eagle rose up out of the field and headed toward the nest. A second eagle also lifted off from the ground. This was as exciting as the F-16's flying in formation over Lambeau Field after the singing of the National Anthem! What a show...and all in front of the USFWS agents. Off to Betcher's, where we saw another nest, another pair....more babies. All total we were able to show them 6 active nests in the footprint. Mags, the eagle expert, said this would mean we have approximately 24 babies to be concerned about. That's 36 eagles in 2.5 hours, folks! Information about a calf that had been debilitated and was being eaten while alive indicated Golden Eagle activity as well, which Mags found really exciting. Tom told the service about a giant white bird, species something he was unfamiliar with. It may have been a whooping crane, which doesn't get protections if it is part of the experimental population out of Wisconsin, but it is still significant and something they wanted to know because it indicates that the reclamation of that species may be showing signs of success. What Rich Davis told me is that they are going to issue another letter to the developer, indicating that the area is more heavily populated with bald eagles than had been represented by the information they provided to the USFWS. On site inspection indicates a need for a more extensive*

168L  
(cont)

*and thorough study of eagle nests, roosts, hunting habitats....activity. The Lake Country study took four months to complete.*  
*Siting is the only mitigation tool available for these projects. Currently, based on the number of eagles they saw today (assuming there are many more), the area will be too densely populated with turbines to minimize eagle takes. DOI is not issuing Incidental Take permits for wind developers and the last time he checked, Rich did not think they were changing that policy. Therefore, the developer was at an increased risk for law enforcement action at the current level of development.*

The DEIS must more completely consider the full range of issues regarding eagles, including eagle population, their hunting range, and the impacts of this transmission line on existing eagle nests, roosts and hunting habitats.

16. Minnesota policy of non-proliferation means that transmission must use shared railroad and highway rights of way. Minn. Stat. §216E.03, Subd. 7(b)(8); (e). MOES DEIS conflates Minn. Stat. §216E.03, Subd. 7(b)(8) and 7(b)(9) by combining these railroad and highway RoW corridor with trails and field lines.

168M

a. FEIS must identify shared railroad and highway rights of way and tally independently. Railroad and highway rights of way are “corridors” for purposes of determination of “proliferation” impacts. Minn. Stat. §216E.03, Sub. 7(b)(8).

168N

b. FEIS must identify trails separately and tally independently of shared RoW – trails are not corridors. Trails are not railroad or highway rights of way and are not “corridors” for purposes of determination of “proliferation” impacts. Minn. Stat. §216E.03, Sub. 7(b)(8).

168O

c. FEIS must identify separately from field lines, parcel boundaries and field boundaries. Field lines, parcel boundaries and field boundaries are not “corridors” for purposes of determination of “proliferation” impacts. Minn. Stat. §216E.03, Sub. 7(b)(8); but see e.g. Minn. Stat. §216E.03, Sub. 7(b)(9)..

168P

d. Maps showing “corridor sharing” must display only shared railroad and highway rights of way.

168Q

e. FEIS must not include or characterize ag land survey lines or other natural division lines as “shared corridor.”

168R

17. Minnesota policy supporting agriculture requires that transmission corridors, if sited on ag land, utilize survey lines or other natural division. Minn. Stat. §17.80. Minnesota PPSA criteria requires consideration of utilization of field lines and property boundaries. Minn. Stat. §216E.03, Sub. 7(b)(9).

a. FEIS must identify separately survey lines or other natural division lines utilized to avoid disruption of agricultural operations.

b. FEIS must identify and set out survey lines or other natural division lines separately from railroad and highway rights of way.

c. FEIS must not include or characterize ag land survey lines or other natural division lines as “shared corridor” for purposes of identifying “proliferation.”

168K

18. The FEIS should include a full FAA list of both public and private airports, which should be cross-referenced for those near the potential corridors.

168K

168S

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168Y

19. Impacts of airports and routing constraints due to each private and public airport should be addressed in the FEIS.

20. In the event of a fault with a high voltage line, fiber optic lines have transferred current into homes causing fires and electrocution, with no solution, as of an EPRI report released in 1997. The FEIS should take into consideration risks of fiber-optic.

21. The FEIS should address transmission corridors in Minnesota that run from the west to the “River Crossing Alternatives Considered” in Map 6.1-01. It is not possible to consider a river crossing without considering the path to it.

22. The FEIS should define and mark “flyway” on the maps, as flyways are a pathway, a corridor, and not “dots” such as those at Alma, Winona, Trempealeau and LaCrescent on Map 6.1-01.

23. The FEIS must address river crossings other than that at Alma because only one crossing in the EIS is not sufficient under MEPA and/or NEPA.

24. The DEIS correctly states that the PPSA supersedes and preempts all local zoning, however, the DEIS addresses Land Use Compatibility in §8.1.4.4, §8.2.4.4, §8.3.4.4 and §8.4.4 noting whether the alternative(s) reviewed are consistent or not with existing land use patterns and regulation, and also with development plans.

a. The FEIS must disclose the statutory and/or regulatory basis for consideration of “development plans” not yet realized.

b. The FEIS must address how it is determined which “plans” are sufficiently probable to merit inclusion and consideration and identify such plans.

c. The FEIS must address how it is determined whether a “plan” is speculative and not to be included or considered and identify such plans.

d. The U.S., Minnesota, and Dakota, Goodhue, Olmsted and Wabasha re currently in a recession/depression. Few development plans and building permits are being approved. If a project is not built or under construction, the FEIS must provide basis for inclusion and consideration.

25. The FEIS must address varying bluffland areas, and show slopes over 12%, identified on a map.

26. The FEIS must identify all easement areas widened for steep slopes and identify basis and authority for widening easements.

27. The FEIS should address the alternatives rejected by scoping decision that were proposed in scoping, such as use of Hwy. 52 corridor to Interstate 90, and other alternatives. The measure of adequacy of EIS is whether it addresses issues raised in “scoping” and not “scoping decision.”

168Z	28. Undergrounding requires a deeper analysis. The undergrounding report submitted regarding the Mississippi River crossing reflects that the cost is not so high to be prohibitive as a mitigative effort.
168AA	29. The USFWS recommends in its letter of 2/19/08 that undergrounding be considered. This fact should be noted in the EIS.
168BB	30. The FEIS should consider use of undergrounding for mitigation in “challenging” areas, such as river and stream crossings, and in scenic or populated areas.
168CC	31. DOT comments regarding impacts and areas to be avoided should be noted carefully to avoid another Brookings late-date routing wake-up call.
168DD	32. Property values are presumed not impacted, which is not credible. The FEIS should address that home mortgages are not available from FHA or VA if homes are within the fall zone of the transmission line. Just the announcement of a route is sufficient to lower property values and require disclosure to any potential buyers. Attached as Exhibit C is a true and correct copy of Testimony of Helene Jaros and FHA & VA guidelines from the Susquehanna-Roseland transmission line proceeding (Helene Jaros is no relation to our former Governor).
168EE	33. The FEIS should address as socio-economic impacts the inability of parties to get mortgages if in the fall-zone, and the impact of easements or Buy the Farm on parties who are upside-down on their mortgages, owing more than what the property is worth.
168FF	34. The FEIS should address socio-economic impacts of mortgage companies taking easement or condemnation payments.
	35. EMF is an important factor to consider, and the full range of EMF of CapX has yet to be fairly acknowledged by the applicants or MOES. The FEIS must disclose the full range of potential magnetic fields in all the configurations proposed for this project. See the attached Exhibit D, a true and correct copy of the DEIS Comment, Affidavit of Bruce McKay, filed in this docket.
	36. The FEIS must address impact of the width of the Right of Way (see DEIS Table 8.4.1-1): <ul style="list-style-type: none"> <li>Identify the RoW width that would be wide enough assure magnetic fields are below 2mG at the RoW edge to protect the health and safety of the public;</li> <li>Disclose chart showing width of RoW necessary to assure mG level at 2mG or lower;</li> <li>Identify basis and authority for RoW width.</li> </ul>
	37. The Hampton substation is on the wrong side of Highway 52 in the DEIS. This must be corrected in the FEIS.

168GG	38. The FEIS must correctly identify route and crossing of Hwy 52 south of the Hampton substation.
168HH	39. The DEIS does not identify all the tree farms along the route.
168II	40. DEIS p. 46-47 regarding CWD, takes a far too conservative view of CWD and transmission through disturbing soil where CWD prions exist. The potential of movement and disturbance of the topsoil in this area is troubling. At minimum, the EIS should include: <ol style="list-style-type: none"> <li>The DNR’s CWD mitigation plan for the Elk Run area;</li> <li>Assessment of whether projects (both CapX and Elk Run development project) comply with DNR’s CWD mitigation plan.</li> <li>Information about means of killing/neutralizing/decontamination of prions (i.e., burning does not work!).</li> <li>Information about probabilities of the range of life, wildlife and/or humans, that could come into contact with prions in the area.</li> </ol>
168JJ	41. FEIS must address foundations for the transmission structures: <ol style="list-style-type: none"> <li>FEIS must include detailed cross-section plans for each of the foundation options;</li> <li>FEIS must address composition of foundations, specifically, whether concrete contains coal fly ash and chemicals within coal fly ash. Attached as Exhibit E is a true and correct copy of a December 5 (see attached STrib article, noting use of coal fly ash for concrete foundations on CapX project);</li> <li>FEIS must address proximity of foundations to wetlands, streams, groundwater and aquifers, particularly where wells are close to surface.</li> <li>FEIS must address impact of concrete leaching into groundwater.</li> </ol>
168KK	42. The FEIS should address all state and federal agency scoping and DEIS comments and should include them all as attachments.
168LL	43. The FEIS must include all Century Farms and stagecoach routes and associated facilities.
168MM	Thank you for the opportunity to comment on this DEIS.
	
	<p>Carol A. Overland for NoCapX 2020 and United Citizen Action Network</p>



FEIS ID #168

Exhibit B  
USFWS Letter dated 2/19/08

CapX2020 06-1115 (Ex. 131, pp. 55-57)

Docket  
Docket  
Rasmussen Rebuttal Schedule 1  
Page 1 of 3



IN REPLY REFER TO:

United States Department of the Interior

FISH AND WILDLIFE SERVICE  
Upper Mississippi River National Wildlife and Fish Refuge  
51 East Fourth Street - Room 101  
Winona, Minnesota 55987



February 19, 2008

Pamela Jo Rasmussen  
Lead, Siting and Permitting  
Xcel Energy  
P.O. Box 8  
Eau Claire, Wisconsin 54702-0008

Dear Ms. Rasmussen:

In follow-up to our meeting on January 25, 2008, on the proposed Rochester to La Crosse 345-kV transmission line, we offer some initial feedback on Mississippi River crossing options being considered.

My staff and a representative of the Fish and Wildlife Service's Ecological Services program met February 13, 2008, to weigh the various crossing options and other line routing considerations. Staff included managers or staff from the Winona and La Crosse Districts of the Upper Mississippi River National Wildlife and Fish Refuge and Trempealeau National Wildlife Refuge.

We have two overall recommendations: 1) that any crossing considers use of existing energy company rights-of-way or easements, and 2) that any new connecting lines are kept away from the Mississippi River corridor.

Based on these overall recommendations, we believe the Alma crossing may pose the least environmental impact. Since there already exist two permanent rights-of-way or easements for the existing lines (copies attached), with total right-of-way of 180 feet, this route may need no further right-of-way permit from the U.S. Fish and Wildlife Service depending on project design. This route is also least likely to impact migratory birds since it is some distance from known bird concentration points. There is, however, an active eagle nest in or adjacent to the existing powerline on the Minnesota side of the refuge. Appropriate avoidance measures would need to be taken to minimize disturbance to this nest, especially when active.

Our second choice would be the La Crosse crossing since it could follow an existing 69-kV powerline (right-of-way attached). However, this route is of concern due to its proximity to an active eagle nest and great blue heron colony approximately 0.3 miles north (Wisconsin side) and an important heron and egret feeding area adjacent to the line (Minnesota side). There is also a bike/pedestrian trail proposed within the existing right-of-way (Wagon Wheel Trail Bike/Pedestrian Trail) just to the north on land owned by the City of La Crosse and the Service. This proposed trail would be located on a dike just south of the existing 69-kV towers and is known locally as former Stagecoach Road or Minnesota Avenue.

Ms. Pamela Jo Rasmussen

2

We also believe that an alternative I-90 corridor using a buried line should be considered with this option in light of above concerns. We suggest a buried line due to the large number of eagles, egrets, herons, and pelicans cross back and forth over the interstate bridges as they use the various sloughs and channels on either side. There is also concern that larger towers and more lines may come into conflict with the La Crosse Airport and Federal Aviation Administration guidelines.

We do not believe the proposed Winona or Trempealeau crossings are worthy of further consideration. Each would likely involve new rights-of-way across portions of national wildlife refuges, and such rights-of-way would likely not be approved since Service policy and regulations do not allow new uses that fragment habitat on refuges. We also have migratory bird concerns with any increase in tower number, size, height, or line configuration within Trempealeau National Wildlife Refuge.

In regard to our second overall recommendation, we believe that lines leading to or from river crossings should use existing line corridors away from the river. For the Alma crossing, we recommend the existing 161-kV line to Waumandee to Blair to Holmen. This or a similar route using existing power line corridors would present the least impacts to migratory birds and other wildlife that concentrate on refuges or state wildlife management areas in or near the river or tributary corridors. This is also in line with our recent recommendation that wind turbines not be located within 10 miles of the floodplain edge due to migratory bird use patterns. We have also enclosed for your information a copy of the existing right-of-way on refuge land across the Black River. For the La Crosse crossing, we would recommend a corridor from Rochester along Interstate 90 since this freeway already presents a known habitat, wildlife, and visual disturbance.

As you move forward with planning, we also encourage you to consider and document the option of arcing or burying crossing lines below the river, removal of existing lines (especially across refuge or wildlife management lands) if no longer critical or doubling is possible on any new line, and discussion on future wind power development or plans. If wind power generation expands in southern Minnesota, how will this play into the proposed 345-kV line and the route selected? Our concern is that wind power generation could fuel the need for another line and crossing, thus causing cumulative impacts beyond the one line being considered at this time.

Finally, this input is to provide you information for planning purposes and does not represent agency endorsement of the proposed project. It also reflects the views of refuges in the project area. Our Ecological Services office has been, and will continue to be, involved in overall review of the project and will likely offer separate feedback and comment as project planning proceeds. Also, there are still concerns with active eagle nests, and interest in reviewing construction methods and timing, tower and line design, required maintenance, and other aspects of the project that are yet unknown. We will continue to review and comment on plans as they develop to ensure minimal impact to refuges and fish and wildlife resources.

Ms. Pamela Jo Rasmussen

3

If you have any questions concerning these comments, please feel free to contact me at (507) 494-6218 or via e-mail at [don.hultman@fws.gov](mailto:don.hultman@fws.gov).

Sincerely,



Don Hultman  
Refuge Supervisor/Manager

## Enclosures

cc: Matt Cummings, BDAW, Inc.  
Chuck Thompson, Dairyland Power  
District Managers, La Crosse and Winona  
Trempealeau NWR  
Twin Cities ES Office

Exhibit C

Testimony of Helene Jaros  
For  
Stop the Lines

Susquehanna-Roseland Transmission Line  
New Jersey BPU Docket: EM09010035

STATE OF NEW JERSEY  
BOARD OF PUBLIC UTILITIES

IN THE MATTER OF THE PETITION OF :  
PUBLIC SERVICE ELECTRIC AND GAS :  
COMPANY FOR A DETERMINATION :  
PURSUANT TO THE PROVISIONS OF :  
N.J.S.A. 40:55D-19 :  
(SUSQUEHANNA-ROSELAND) :

BPU Docket: EM09010035

TESTIMONY OF HELENE JAROS

ON BEHALF OF STOP THE LINES

IN OPPOSITION TO

SUSQUEHANNA-ROSELAND TRANSMISSION LINE PROJECT

1 **I. Background**

2 **Q. Please state your name and business address**

3 **A.** My name is Helene Jaros, and my business address is Residential Home Funding Corp, 54  
4 Woodport Road, Sparta, New Jersey, 07871. However, my home address, 460 Stanhope  
5 Road, Sparta, New Jersey, 07971, is also important for the record, because we have  
6 transmission lines running through our property. The 230kV transmission tower is behind  
7 our home.

8 **A: By whom are you employed and in what capacity?**

9 **A.** I am the Controller of Residential Home Funding Corporation. My field is Mortgage  
10 Banking.

11 **Q. Please describe the purpose of your testimony.**

12 **A.** I have been asked by Stop the Lines to address various aspects of mortgage financing and  
13 eminent domain payments to landowners along the Susquehanna to Roseland 500 kV line. I  
14 want to testify because transmission lines have an impact on a person's ability to get a  
15 mortgage on a property, and the presence of a transmission line eliminates mortgage options  
16 from consideration.

17 **Q: What have you learned about transmission lines and mortgage financing?**

18 **A:** I have had to deal with transmission lines and mortgage financing both professionally and  
19 personally. Professionally, I have learned that FHA and VA mortgages have restrictions and  
20 prohibitions regarding financing mortgages where the property includes a transmission  
21 easement. When confronted with this issue, I did call the FHA to know whether they would  
22 waive that policy, and they replied that they would not, and there has been no waiver, and  
23 they will not consider any waivers. They were absolutely firm – they will not finance a home  
24 that includes a transmission easement. The reason my company does not have any

1 underwriting on this is because the appraiser notes when working on the appraisal and the  
2 appraisal stops at that point. When the appraisal stops, there will be no mortgage.

3 **Personally,** this issue has affected me. I am not able to get a FHA mortgage because  
4 the government considers transmission lines a hazardous risk. This an issue to me for my  
5 own property, and I had to find a different way to finance other than FHA.

6 **Q: Please explain the position of the U.S. Department of Housing and Urban  
7 Development regarding properties with transmission easements.**

8 **A:** The U.S. Department of Housing and Urban Development regards high-voltage  
9 transmission lines as a hazard and nuisance. First, in its rules regarding site requirements,  
10 site assessments, and eligibility for FHA mortgages, it addresses hazards and nuisances:

11 **2-2 SPECIAL NEIGHBORHOOD HAZARDS AND NUISANCES**

12  
13 Physical conditions in some neighborhoods are hazardous to the  
14 personal health and safety of residents and may endanger physical  
15 improvements. These conditions include unusual topography,  
16 subsidence, flood zones, unstable soils, traffic hazards and  
17 various types of grossly offensive nuisances.

18  
19 When reporting the appraisal, consider site hazards and  
20 nuisances.

21  
22 > If site hazards exist and cannot be corrected but do not meet  
23 the level of unacceptability, the appraisal must be based upon  
24 the current state.

25  
26 > If the hazard and/or nuisance endangers the health and safety  
27 of the occupants or the marketability of the property, mark  
28 "YES" in VC-1 and return the unfinished appraisal to the  
29 lender.

30  
31 (2-2) The lender, who is ultimately responsible for rejecting the  
32 site, relies on the appraiser's site analysis to make this  
33 determination. Guidelines for determining site acceptability  
34 follow. The appraiser is required to note only those readily  
35 observable conditions.

36  
37 **A. UNACCEPTABLE SITES**

38 FHA guidelines require that a site be rejected if the  
39 property being appraised is subject to hazards,  
40 environmental contaminants, noxious odors, offensive sights

1 or excessive noises to the point of endangering the physical  
2 improvements or affecting the livability of the property,  
3 its marketability or the health and safety of its occupants.  
4 Rejection may also be appropriate if the future economic  
5 life of the property is shortened by obvious and compelling  
6 pressure to a higher use, making a long-term mortgage  
7 impractical.

8  
9 These considerations for rejection apply on a case-by-case  
10 basis, taking into account the needs and desires of the  
11 purchaser. For example, a site should not be considered  
12 unacceptable simply because it abuts a commercial use; some  
13 commercial uses may not appeal to a specific market segment  
14 while other commercial uses may.

15  
16 If the condition is clearly a health and safety violation,  
17 reject the appraisal and return it to the lender. If there  
18 is any doubt as to the severity, report the condition and  
19 submit the completed report. The lender must clear the  
20 condition and may require an inspection or reject the  
21 property. For those conditions that cannot be repaired,  
22 such as site factors, the appraised value is based upon the  
23 existing conditions.

24  
25 Exhibit HJ-1, U.S. Dept. of Housing and Urban Development, Publication 4150.2, CHG-1, p.  
26 6-7<sup>1</sup>.

27  
28 Then, it goes on to address high-voltage transmission lines specifically, and the U.S.

29 Department of Housing and Urban Development policy about transmission lines is clear:

#### 30 **J. OVERHEAD HIGH-VOLTAGE TRANSMISSION LINES**

31  
32 No dwelling or related property improvement may be located  
33 within the engineering (designed) fall distance of any pole,  
34 tower or support structure of a high-voltage transmission  
35 line, radio/TV transmission tower, microwave relay dish or  
36 tower or satellite dish (radio, TV cable, etc.). For field  
37 analysis, the appraiser may use tower height as the fall  
38 distance.

39  
40 For the purpose of this Handbook, a High-Voltage Electric  
41 Transmission Line is a power line that carries high voltage  
42 between a generating plant and a substation. These lines  
43 are usually 60 Kilovolts (kV) and greater, and are  
44 considered hazardous. Lines with capacity of 12-60 kV and

<sup>1</sup> Entire publication available online:  
<http://www.hud.gov/offices/adm/hudclips/handbooks/hsg/4150.2/41502c2HSGH.doc>

1 above are considered high voltage for the purpose of this  
2 Handbook. High voltage lines do not include local  
3 distribution and service lines.

4  
5 Low voltage power lines are distribution lines that commonly  
6 supply power to housing developments and similar facilities.  
7 These lines are usually 12 kV or less and are considered to  
8 be a minimum hazard. These lines may not pass directly over  
9 any structure, including pools, on the property being  
10 insured by HUD.

11  
12 > If the property is within the unacceptable distance,  
13 mark "YES" in VC-1.

14  
15 Exhibit HJ-2, U.S. Dept. of Housing and Urban Development, Publication 4150.2, CHG-1, p.

16 11-12<sup>2</sup>

17 **Q: What percentage of the mortgages your company handles are FHA mortgages?**

18 **A:** By far the majority of our loans at Residential Home Funding Corp. are financed through  
19 the FHA (a/k/a HUD) program, close to 95% of our loans.

20 **Q: As one well versed in mortgage financing, what is your opinion of the socio-economic  
21 impact if parties are not able to secure a FHA loan because a transmission line is on or  
22 within "fall-down" distance of their property?**

23 **A:** It is very difficult to get a loan in this economy. With FHA loans, it is easier to get a  
24 mortgage because the applicable standards. We work nearly exclusively with FHA, and  
25 nationwide, about 70% of mortgages are FHA. We are one of the mortgage companies that  
26 does have this program, we focus on it, and it is the one we work well with. It is much more  
27 flexible generally, and in this market specifically. The program was created to help people  
28 get a mortgage, they don't require looking at credit score, and give a much better rate – they  
29 want people to get a mortgage and they work with you. Banks do this from a different  
30 perspective, examine credit score, look closely at the risk, and with the additional risk of

<sup>2</sup> Entire publication available online:  
<http://www.hud.gov/offices/adm/hudclips/handbooks/hsg/4150.2/41502c2HSGH.doc>

1 transmission, they will not consider it. In a situation where the federal government says no,  
 2 the private banks are even more unlikely to finance. This transmission line already has an  
 3 impact on landowners along the route, and with the upgrade of the 230kV line and addition of  
 4 the 500kV line, the negative impact will be exacerbated.

5 **Q: Are there other federal mortgage restrictions?**

6 **A:** Yes, the Veterans Administration (VA) also places restrictions on mortgages of property  
 7 near high-voltage transmission lines:

8 No part of any residential structure may be located within a high voltage electric  
 9 transmission line easement.

10 Any detached improvements even partially in a transmission line easement will not  
 11 receive value for VA purposes.

12 Exhibit HJ-3, VA Pamphlet 26-7, p. 13<sup>3</sup>.

13  
 14 **Q: Do you professionally work with VA loans?**

15 **A:** Yes, we work with VA loans, and their restrictions are the same as those of the FHA.

16 **Q: Should the BPU consider these federal standards in its review of the Susquehanna-  
 17 Roseland transmission project?**

18 **A:** Yes, it is my professional and personal opinion that the BPU should consider that the FHA  
 19 and VA will not finance property with a transmission easement because they have deemed  
 20 transmission lines hazardous and a nuisance. The BPU, if they agree with going ahead with  
 21 this line and agree with PSE&G and PJM, if they go ahead with this, they are disregarding  
 22 the federal standard.

23 **Q: Does this conclude your testimony?**

24 **A:** Yes, it does.

<sup>3</sup> Complete document available online: <http://www.hud.gov/offices/adm/hudclips/handbooks/lh95/26-7c12LH95.pdf>

hundred or dollars per thousand of assessed value. In the addendum to the VC, state the assessment, real estate tax liability and tax year. State the assessed market value of the subject property in the addenda.

- > If there is no method to relate the assessment to market value, such as new construction where reasonable assessment may not exist, mark the assessed market value response as "N/ A".

2. Special Assessment

A special assessment can be calculated in two ways:

- o the same way as real estate taxes, or
- o on a pro-rated basis

Determine how the special assessment is calculated and report the special assessment liability on the URAR.

- > If the property does not have special assessment, mark the URAR "N/A".

For example: An organization that services a community creates an annual operating budget. Each property becomes liable for its percentage of that budget based on the percentage of front feet their property has compared to the total amount of front feet as a special assessment in this community.

2-2 SPECIAL NEIGHBORHOOD HAZARDS AND NUISANCES

Physical conditions in some neighborhoods are hazardous to the personal health and safety of residents and may endanger physical improvements. These conditions include unusual topography, subsidence, flood zones, unstable soils, traffic hazards and various types of grossly offensive nuisances.

When reporting the appraisal, consider site hazards and nuisances.

- > If site hazards exist and cannot be corrected but do not meet the level of unacceptability, the appraisal must be based upon the current state.

2-5

6/99

4150.2, CHG-1

- > If the hazard and/or nuisance endangers the health and safety of the occupants or the marketability of the property, mark "YES" in VC-1 and return the unfinished appraisal to the lender.

(2-2) The lender, who is ultimately responsible for rejecting the site, relies on the appraiser's site analysis to make this determination. Guidelines for determining site acceptability follow. The appraiser is required to note only those readily observable conditions.

## A. UNACCEPTABLE SITES

FHA guidelines require that a site be rejected if the property being appraised is subject to hazards, environmental contaminants, noxious odors, offensive sights or excessive noises to the point of endangering the physical improvements or affecting the livability of the property, its marketability or the health and safety of its occupants. Rejection may also be appropriate if the future economic life of the property is shortened by obvious and compelling pressure to a higher use, making a long-term mortgage impractical.

These considerations for rejection apply on a case-by-case basis, taking into account the needs and desires of the purchaser. For example, a site should not be considered unacceptable simply because it abuts a commercial use; some commercial uses may not appeal to a specific market segment while other commercial uses may.

If the condition is clearly a health and safety violation, reject the appraisal and return it to the lender. If there is any doubt as to the severity, report the condition and submit the completed report. The lender must clear the condition and may require an inspection or reject the property. For those conditions that cannot be repaired, such as site factors, the appraised value is based upon the existing conditions.

## B. TOPOGRAPHY

There are special hazards caused by unique topography. For example, denuded slopes, soil erosion and landslides often adversely affect the marketability of hillside areas. When evaluating the site, consider earth and mud slides from adjoining properties, falling rocks and avalanches. These occurrences are associated with steep grades and must be considered in the site analysis.

## C. SUBSIDENCE

Danger of subsidence is a special hazard that may be encountered under a variety of circumstances:

- o where buildings are constructed on uncontrolled fill or unsuitable soil containing foreign matter such as organic material
- o where the subsoil is unstable and subject to slippage or expansion

In mining areas, consider the depth or extent of mining operations and the site of operating or abandoned shafts or tunnels to determine if the danger is imminent, probable or negligible.

6/99

2-6

4150.2, CHG-1

## J. OVERHEAD HIGH-VOLTAGE TRANSMISSION LINES

No dwelling or related property improvement may be located within the engineering (designed) fall distance of any pole, tower or support structure of a high-voltage transmission line, radio/TV transmission tower, microwave relay dish or tower or satellite dish (radio, TV cable, etc.). For field analysis, the appraiser may use tower height as the fall distance.

For the purpose of this Handbook, a High-Voltage Electric Transmission Line is a power line that carries high voltage between a generating plant and a substation. These lines are usually 60 Kilovolts (kV) and greater, and are considered hazardous. Lines with capacity of 12-60 kV and above are considered high voltage for the purpose of this Handbook. High voltage lines do not include local distribution and service lines.

Low voltage power lines are distribution lines that commonly supply power to housing developments and similar facilities. These lines are usually 12 kV or less and are considered to be a minimum hazard. These lines may not pass directly over any structure, including pools, on the property being insured by HUD.

> If the property is within the unacceptable distance, mark "YES" in VC-1.

## 12.07 Fuel Pipelines and High Voltage Electric Lines

### Gas and Petroleum Pipelines

No part of any residential structure may be located within a high pressure gas or liquid petroleum pipeline easement.

Any detached improvements even partially in the pipeline easement will not receive value for VA purposes.

If a proposed residential structure will be located outside the pipeline easement, but within an area that extends 220 yards on either side of the centerline of the pipeline itself, the VA notice of value will be conditioned for the following, as applicable:

- High Pressure Gas Pipelines – A statement from an authorized official of the pipeline company certifying compliance with 49 CFR 192.607, 192.609, 192.611 and 192.613.
- Liquid Petroleum Pipelines – A statement from an authorized official of the pipeline company certifying compliance with 49 CFR 195 and amendments thereto.

**[49 CFR 192.607, 192.609, 192.611 and 192.613]  
[49 CFR 195]**

### High Voltage Electric Transmission Lines

No part of any residential structure may be located within a high voltage electric transmission line easement.

Any detached improvements even partially in a transmission line easement will not receive value for VA purposes.



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## Hazards and Nuisances: Overhead High Voltage Transmission Towers and Lines

### Chapter 1 Appraisal and Property Requirements Page 1-18f

Information by State  
Print version

The appraiser must indicate whether the dwelling or related property improvements is located within the easement serving a high-voltage transmission line, radio/TV transmission tower, cell phone tower, microwave relay dish or tower, or satellite dish (radio, TV cable, etc).

- 1) If the dwelling or related property improvement is located within such an easement, the DE Underwriter must obtain a letter from the owner or operator of the tower indicating that the dwelling and its related property improvements are not located within the tower's (engineered) fall distance in order to waive this requirement.
- 2) If the dwelling and related property improvements are located outside the easement, the property is considered eligible and no further action is necessary. The appraiser, however, is instructed to note and comment on the effect on marketability resulting from the proximity to such site hazards and nuisances.

- ▶ Airports
- ▶ Railroad tracks and other high noise sources
- ▶ Flood zones and insurance
- ▶ Lead based paint
- ▶ Radon
- ▶ Overhead high voltage transmission towers and lines
- ▶ Operating and abandoned oil and gas wells, tanks and pressure lines
- ▶ Insulation materials
- ▶ Lava zones
- ▶ Avalanche hazards

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## Exhibit D

Affidavit and Exhibits of Bruce McKay P.E.  
Submitted as DEIS Comment

CapX 2020 Hampton – LaCrosse Transmission Project  
Minnesota PUC Docket 09-1448

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

In the Matter of the Route Permit Application  
by Xcel Energy, Dairyland Power Cooperative,  
Souther Minnesota Municipal Power Agency,  
Rochester Public Utilities , and WPPI Energy for  
a 345 kV Transmission Line from Hampton,  
Minnesota, to Rochester, Minnesota, to  
La Crosse, Wisconsin

OAH DOCKET NO. 3-2500-21181-2  
PUC DOCKET NO. E002/TL-09-1448

**AFFIDAVIT OF BRUCE MCKAY, P.E.**

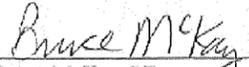
Bruce McKay, P.E., after affirming or being duly sworn on oath, states and deposes as follows:

1. My name is Bruce McKay. I am an electrical engineer, and licensed Professional Engineer, in the state of Minnesota.
2. My experience is primarily in the areas of industrial power distribution and industrial automation and control. I have 16 years experience in these areas as a licensed Master Electrician, followed by 14 years as a licensed Professional Engineer to date.
3. I am a landowner near Henderson, MN, and therefore am not directly affected by the proposed Hampton-Rochester-La Crosse 345 kV Transmission Project.
4. I have participated in CapX2020 Task Force meetings held in Henderson, attended one day of PUC hearings in St. Paul, and attended, including making comments and submitting statements, all but one of the Public Hearings held in the Le Sueur-Henderson area over the last few years.
5. Attached as Exhibit A is a true and correct copy of the CapX2020 Engineering, Design, Construction, and Operational Characteristics, Section 3.1.1 Hampton-Rochester-La Crosse 345 kV Transmission Line, found on page 3-3 of the January 15, 2010, Route Permit Application for the Hampton-Rochester-La Crosse 345 kV Transmission Project, wherein it states that "Two 954 Aluminum Conductor Steel Supported (ACSS) conductors will be used per phase."
6. Attached as Exhibit B is a true and correct copy of Direct Testimony of Larry L. Schedin, Attachment J, showing various conductor specifications, including:
  - a. In the chart on page 3, Summer Thermal Ratings for a Twin bundled 954 kcm 54/19 ACSS, 345 KV, of 3700 amps and 2211 MVA.
  - b. In the chart on page 5, Winter Thermal Ratings for a Twin bundled 954 kcm 54/7 ACSS, 345 KV, of 4064 amps and 2428 MVA.

- c. For the purposes of this Affidavit, I am using the Summer Ratings, but it should be noted that Winter Ratings are approximately an additional 9.8% higher than the Summer Ratings.
7. The first purpose of this statement is to point out the fact that the CapX2020 Magnetic Field tables and charts that I've been able to find in Hampton-Rochester-La Crosse 345 kV Transmission Project documents all fail to address the full potential Magnetic Field along the transmission lines. Each table and chart that I've seen displays Magnetic Field data calculated from estimated Peak and estimated Average System Conditions (Current (Amps)) rather than from transmission line design capacities. An example of such a table is presented in the attached Exhibit C, a true and correct copy of the CapX2020 Engineering, Design, Construction, and Operational Characteristics, Table 3.6-2: Calculated Magnetic Fields (mG) for Proposed 345 kV Transmission Line Designs (3.28 Feet Aboveground), found on pages 3-28 and 3-29 of the January 15, 2010, Route Permit Application for the Hampton-Rochester-La Crosse 345 kV Transmission Project.
8. The second purpose of this statement is to point out the fact that a table such as Exhibit C underestimates the Magnetic Field that would be created if the transmission line was utilized to its full potential capacity, or to 80% of its full potential capacity. The attached Exhibit D is a true and correct copy of "McKay Magnetic Field Calculations" which presents an example of Magnetic Field calculations based on estimated transmission line currents as compared to Magnetic Field calculations based on future potential (design) transmission line currents.
- a. By following through STEPS 1, 2, 3-Single Circuit, and 4-Single Circuit in Exhibit D, you can see that with one Circuit in Service, for 2015 PEAK, the Calculated PEAK MAGNETIC FIELDS increase by 1323% and for 2015 AVERAGE, the Calculated AVERAGE MAGNETIC FIELDS increase by 1323% when design capacities are used for the calculations rather than using estimated load currents.
- b. By following through STEPS 1, 2, 3-Double Circuit, and 4-Double Circuit in Exhibit D, you can see that with two Circuits in Service, for 2015 PEAK, the Calculated PEAK MAGNETIC FIELDS increase by 2646% and for 2015 AVERAGE, the Calculated AVERAGE MAGNETIC FIELDS increase by 2646% when design capacities are used for the calculations rather than using estimated load currents.
- c. Please Note: Exhibit D is presented as a conceptual example. Actual design capacities and associated Magnetic Field calculations would need to be and should be provided by the Applicants.
9. The third purpose of this statement is to stress that right-of-way widths to protect the health and safety of those along the proposed transmission line need to be based on Calculated Magnetic Field's derived from design capacities, NOT on Calculated Magnetic Field's derived from estimated transmission line currents. A right-of-way based on the Applicant's low transmission line current estimates does not sufficiently protect people near the transmission lines.
10. Please feel free to contact me with any comments or questions you have.

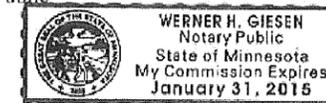
Further your affiant sayeth naught.

Dated: April 20, 2011

  
 Bruce McKay, PE  
 e-mail: [bmckay.aces@gmail.com](mailto:bmckay.aces@gmail.com)  
 cell: 612-386-5983

Signed and sworn to before me this  
20 day of April, 2011.

  
 Notary Public



# EXHIBIT A

## Line Configurations and Specifications

Hampton-LaCrosse Application

Section 3 Project Description

p. 3-3

CapX2020

Engineering, Design, Construction, and Operational Characteristics

### 3.1.1 Hampton-Rochester-La Crosse 345 kV Transmission Line

For the Project's proposed 345 kV line, the Applicant proposes primarily to use single-pole, self-weathering steel, double-circuit capable structures. Self-weathering steel alloys were developed to eliminate the need for painting and are commonly used by the Applicant and throughout the industry. The steel alloy develops a stable, rust-like appearance (dark reddish-brown color) when exposed to the weather for several years. The wetting and drying cycles cause rust to form a protective layer on its surface, preventing further rusting. The layer develops and regenerates continuously when subjected to the influence of the weather.

These single-pole steel structures would range from 130 to 175 feet in height. Spans could range from 600 to 1,000 feet, but would typically be 700 to 1,000 feet. In some areas, only one circuit would be strung and the other side of the pole would be available for adding a second circuit in the future, when conditions warrant. In other areas, the unused side of the 345/345 kV structure would be used to carry a lower voltage line on the second set of arms until a second 345 kV circuit is needed. Tubular steel pole structures are typically placed on large pier foundations of cast-in-place, reinforced concrete.

Two 954 Aluminum Conductor Steel Supported (ACSS) conductors will be used per phase. One or two shield wires will be used to protect the conductors from lightning strikes. One of these shield wires will incorporate fiber optic to facilitate relay control communications between substations and between substations, utility offices such as control centers. Fiber optics will be used only for utility purposes.

Figure 3.1-1 depicts a representative double-circuit 345 kV single pole structure.

The Mississippi River presents unique considerations that will require the use of multiple-circuit, specialty structures. A portion of this crossing is on Upper Mississippi River Wildlife Refuge lands managed by the USFWS. A Special Use Permit will be required to cross the Refuge and the Applicant will work closely with the USFWS to identify the most appropriate structure design.

An existing double-circuit transmission line crosses the Mississippi River and Refuge at the Project's proposed crossing location. The existing line crosses approximately 0.5 mile of Refuge lands and includes two structures on Refuge property. The line is constructed on a 180-foot-wide permitted ROW. An area approximately 125 feet wide and 1,900 feet long is maintained cleared of trees. The two main river crossing structures are 180 feet tall.

Hampton ▪ Rochester ▪ La Crosse 345 kV Transmission Project

January 2010

3-3

## EXHIBIT B

### Amps and MVA for Line Configurations and Specifications

Direct Testimony of Larry L. Schedin, Attachment J  
CapX 2020 Certificate of Need  
PUC Docket E002, ET2/CN-06-1115

Direct Testimony of Larry L. Schedin  
Attachment J

- Non Public Document – Contains Trade Secret Data  
 Public Document – Trade Secret Data Excised  
 Public Document

Xcel Energy

Docket No.: E002, ET2/CN-06-1115

Response To: Elizabeth Goodpaster  
and Mary Marrow  
MCEA/Wind on the Wires

Information Request No. 3

Date Received: March 27, 2008

Question:

With reference to the Application Volume I, Sec. 2.4 (pages 2.9) entitled "Transmission Line Characteristics" and Applicants' response to DOC/OES Information Request No. 2, please provide thermal MVA ratings, surge impedance loadings (SIL), MVA and thermal ampere capacity ratings (amplacities) under summer normal, summer emergency, winter normal and winter emergency conditions for the following conductors and voltages:

- (a) Single 795ACSR, 115 KV
- (b) Single 795 ACSS, 115 KV
- (c) Twin bundled 795 ACSR, 115 KV
- (d) Twin bundled 795 ACSS, 115 KV
- (e) Single 954 ACSS, 115 KV
- (f) Single 795 ACSS, 161 KV
- (g) Single 954 ACSS, 161 KV
- (h) Single 795 ACSR, 230 KV
- (i) Single 795 ACSS, 230 KV
- (j) Single 954 ACSS, 230 KV
- (k) Twin bundled 795 ACSR, 345 KV
- (l) Twin bundled 954 ACSS, 345 KV
- (m) Triple bundled 954 ACSS, 500 KV
- (n) Triple bundled conductor as used on the Forbes – Chisago 500 KV line

In your response, please define the conditions for summer normal, summer emergency, winter normal and winter emergency conditions (ambient temp, wind speed, degree rise, allowable sag, etc.), and specify the regulatory authority setting the foregoing standards and the reference to applicable rules.

Direct Testimony of Larry L. Schedin  
Attachment J

Response:

The thermal ratings of the requested conductors and voltages are noted in the table below. Conductor ratings are based on the “IEEE Standard for calculation of Bare Overhead Conductor Temperature and Ampacity Under Steady-State Conditions,” ANSI/IEEE Standard 738. Alcoa SAG10 Ratekit was used to calculate conductor ratings.

A regulatory authority does not set the conductor steady state thermal rating variables. The CapX2020 Member Utilities Transmission Line Standards Committee (“Committee”) developed the conductor steady state thermal rating variables for summer ratings based upon member utilities’ standard of practice..

The summer steady state thermal rating variables are as follows:

- Conductor orientation relative to north: 90 degrees
- Atmosphere: Clear
- Air Temperature: 40 degrees C for Summer
- Wind Speed: 2 ft/sec
- Wind angle relative to conductor: 90 degrees
- Elevation above sea level: 1000 ft
- Latitude: 45 degrees N
- Date: July 8
- Solar time: 12 hours
- Coefficient of emissivity: 0.7
- Coefficient of absorption: 0.9
- 200 degrees C maximum operating temperature for ACSS
- 100 degrees C maximum operating temperature for ACSR

The Committee defined the Emergency Line Rating as equal to the steady state thermal rating.

The Committee specified that conductors meet minimum clearances to ground based upon voltage and nature of surface under the conductor (*i.e.*, roads, interstate highway, railroads, etc.). The minimum specified clearances were chosen to assure that the final constructed lines meet or exceed the National Electrical Safety Code (“NESC”) minimum clearances. Conductor sags are to be calculated based upon conductor size, conductor temperature, span length, design tension, structure heights and loading conditions. Vertical clearances shall be applied to the greatest sag resulting from either the maximum operating temperature of 200°C (for the ACSS

Direct Testimony of Larry L. Schedin  
Attachment J

conductor) and 100°C (for the ACSR conductor) or the maximum loaded condition (ice plus wind).

<u>Conductor</u>	<u>Summer Thermal Ampacity Rating</u>	<u>Summer Thermal MVA Rating</u>
Single 795 kcm 26/7 ACSR, 115 KV	965 amps	192 MVA
Single 795 kcm 26/7 ACSS, 115 KV	1655 amps	330 MVA
Twin bundled 795 kcm 26/7 ACSR, 115 KV	1930 amps	384 MVA
Twin bundled 795 kcm 26/7 ACSS, 115 KV	3310 amps	659 MVA
Single 954 kcm 54/19 ACSS, 115 KV	1850 amps	368 MVA
Single 795 kcm 26/7 ACSS, 161 KV	1655 amps	462 MVA
Single 954 kcm 54/19 ACSS, 161 KV	1850 amps	516 MVA
Single 795 kcm 26/7 ACSR, 230 KV	965 amps	384 MVA
Single 795 kcm 26/7 ACSS, 230 KV	1655 amps	659 MVA
Single 954 kcm 54/19 ACSS, 230 KV	1850 amps	737 MVA
Twin bundled 795 kcm 26/7 ACSR, 345 KV	1930 amps	1153 MVA
Twin bundled 954 kcm 54/19 ACSS, 345 KV	3700 amps	2211 MVA
Triple bundled 954 kcm 54/19 ACSS, 500 KV	5550 amps	4806 MVA
Triple bundled conductor as used on the Forbes – Chisago 500 KV line (Triple bundled 1192.5 kcm 45/7 ACSR)	3648 amps	3159 MVA

The Committee did not develop steady state thermal rating variables for winter ratings. Xcel Energy – NSP Operating Territory uses 0°C for the winter rating air temperature for calculating the rating during the winter operating season of November 1 to April 30. The April 30 date produces the lowest allowable line rating of the winter rating period, so it is used in the following table. The April 30 date and 0°C air temperature were used in conjunction with the other steady state thermal