

**AN OFFICIAL FILING  
BEFORE THE  
PUBLIC SERVICE COMMISSION OF WISCONSIN**

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**Joint Application of Dairyland Power  
Cooperative, Northern States Power  
Company-Wisconsin, and Wisconsin Public  
Power, Inc., for Authority to Construct and  
Place in Service 345 kV Electric Transmission  
Lines and Electric Substation Facilities for the  
CapX Twin Cities-Rochester-La Crosse Project,  
Located in Buffalo, Trempealeau, and La Crosse  
Counties, Wisconsin**

**Docket No: 05-CE-136**

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**DIRECT TESTIMONY OF TOM HILLSTROM**

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1 **INTRODUCTION**

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

3 A. My name is Tom Hillstrom, and my business address is 414 Nicollet Mall, Minneapolis,  
4 Minnesota 55401.

5 **Q. By whom are you employed and in what capacity?**

6 A. I am employed as the Supervisor, Siting and Permitting by Xcel Energy Services Inc., the  
7 service company provider for Northern States Power Company, a Minnesota corporation  
8 (“NSPM”). In my current position, I am responsible for the permitting of the Hampton –  
9 Rochester – La Crosse 345 kV Project which includes a 345 kV transmission line  
10 between Hampton, Minnesota and La Crosse, Wisconsin and two 161 kV transmission  
11 lines in the Rochester area (“Hampton – Rochester – La Crosse 345 kV Project” or “345  
12 kV Project”).

1 **Q. Please describe your educational background and professional experience.**

2 A. I earned a Bachelor of Science degree in biology from the University of Minnesota in  
3 1988. Since then, I have held several different positions in the environmental field. I  
4 have experience analyzing environmental impacts from roadway and electric  
5 transmission projects and developing environmental review documents such as  
6 environmental assessment and environmental impact studies. My experience also  
7 includes obtaining permits for these types of projects. As the Supervisor of Siting and  
8 Permitting for Xcel Energy Services Inc., I am responsible for managing siting and  
9 permitting efforts for high voltage transmission line projects. My resume is attached as  
10 **Ex.-Applicants-Hillstrom-2.**

11 **Q. For whom are you testifying?**

12 A. I am providing testimony on behalf of NSPW, Dairyland Power Cooperative  
13 (“Dairyland”), and WPPI Energy (collectively “Applicants”). Applicants seek approval  
14 from the Public Service Commission of Wisconsin (“PSCW”) and the Wisconsin  
15 Department of Natural Resources (“WDNR”) to construct the Wisconsin portion of the  
16 345 kV Project. The Wisconsin portion includes a 345 kV line from Alma, Wisconsin to  
17 a new transmission substation located in Onalaska, Wisconsin, near Holmen and  
18 associated 161 kV system interconnections at the new substation (the “La Crosse 345 kV  
19 Project” or “Project”).

20 **Q. What is the purpose of your direct testimony?**

21 A. The purpose of my testimony is to:

- 22
- provide a general description of the 345 kV Project;

- 1 • to introduce the other witnesses who are providing direct testimony in support of
- 2 the Application;
- 3 • provide an overview of the routing selection process used by Applicants in
- 4 determining the proposed and alternative routes for the Wisconsin portion of the
- 5 345 kV Project, including the environmental impacts of the routes and mitigation
- 6 techniques;
- 7 • discuss environmental considerations related to the Black River floodplain
- 8 crossing;
- 9 • discuss the environmental permits required for the 345 kV Project;
- 10 • provide information regarding the Project’s potential aesthetic impacts on State
- 11 Highway (“STH”) 35, which is designated as the Great River Road (“GRR”)
- 12 along the proposed routes; and
- 13 • provide information regarding the public outreach conducted by the Applicants
- 14 for this Project.

15 **Q. Are you sponsoring any exhibits with your testimony?**

16 **A.** Yes. I am sponsoring the following exhibits to my testimony:

17 Ex.-Applicants-Hillstrom-1: Joint Application for a Public Service Commission  
18 Certificate of Public Convenience and Necessity and  
19 WDNR Utility Permit for the CapX Twin Cities –  
20 Rochester-La Crosse Project Located in Buffalo,  
21 Trempealeau an La Crosse Counties, Wisconsin (PSC REF  
22 #: see separately filed listing);

23  
24 Ex.-Applicants-Hillstrom-2: Resume of Tom Hillstrom;

25  
26 Ex.-Applicants-Hillstrom-3: Map of Route Alternatives;

27  
28 Ex.-Applicants-Hillstrom-4: Wisconsin Department of Transportation (“WisDOT”)  
29 December 28, 2010 Letter to PSCW  
30 (PSC REF #: 143009);

- 1  
2 Ex.-Applicants-Hillstrom-5: WisDOT’s January 27, 2011 Letter to PSCW  
3 (PSC REF #: 144025);  
4  
5 Ex.-Applicants-Hillstrom-6: Wisconsin Department of Natural Resources (“WDNR”)  
6 March 30, 2011 Letter to PSCW  
7 (PSC REF #: 146611);  
8  
9 Ex.-Applicants-Hillstrom-7: Summary Comparison of Impacts of Route Alternatives;  
10  
11 Ex.-Applicants-Hillstrom-8: Applicants’ November 28, 2011 Comment Letter regarding  
12 the Draft Environmental Impact Statement (“DEIS”) (PSC  
13 REF #: 156283);  
14  
15 Ex.-Applicants-Hillstrom-9: Rare Species Report (PSC REF #:see attached listing);  
16  
17 Ex.-Applicants-Hillstrom-10: U.S. Fish and Wildlife Service (“USFWS”) December 22,  
18 2011 Comment Letter regarding the DEIS (PSC REF#:  
19 157730);  
20  
21 Ex.-Applicants-Hillstrom-11: Excerpts from Federal DEIS for the Hampton – Rochester  
22 – La Crosse 345 kV Transmission Project;  
23  
24 Ex.-Applicants-Hillstrom-12: Screenshot from USFWS’s website;  
25  
26 Ex.-Applicants-Hillstrom-13: USFWS, *National Bald Eagle Management Guidelines*,  
27 May 2007;  
28  
29 Ex.-Applicants-Hillstrom-14: Applicants’ August 26, 2010 WisDOT scenic easement and  
30 Q1 Easement Filing (PSC REF#: see attached listing);  
31  
32 Ex.-Applicants-Hillstrom-15: Applicants’ Supplemental Q1 Easement Documents;  
33  
34 Ex.-Applicants-Hillstrom-16: WisDOT’s December 23, 2011 DEIS Comments (PSC  
35 REF#: 157481);  
36  
37 Ex.-Applicants-Hillstrom-17: Copies of the Eight Scenic Easements cited in WisDOT’s  
38 DEIS Comments;  
39  
40 Ex.-Applicants-Hillstrom-18: Map of Eight Scenic Easements cited in WisDOT’s DEIS  
41 Comments;  
42  
43 Ex.-Applicants-Hillstrom-19: WisDOT’s November 22, 2011 letter to Federal Highway  
44 Administration (“FHWA”) (PSC REF#: 156926);  
45

- 1 Ex.-Applicants-Hillstrom-20: Copies of Two Form Scenic Easements crossed by Route  
2 Alternatives;  
3  
4 Ex.-Applicants-Hillstrom-21: Technical Memorandum: Comparison of Aesthetic Impacts  
5 for Wisconsin Routes;  
6  
7 Ex.-Applicants-Hillstrom-22: Applicants' December 9, 2011 Letter to FHWA  
8 (PSC REF#: 156926);  
9  
10 Ex.-Applicants-Hillstrom-23: Applicants' December 23, 2011 Supplemental Comments  
11 on the DEIS (PSC REF#: 157490);  
12  
13 Ex.-Applicants-Hillstrom-24: Summary Comparison of Impacts for Alternative Q1  
14 Segments South of Alma (corrected);  
15  
16 Ex.-Applicants-Hillstrom-25: Map of Holland U.S. 53 Adjustment;  
17  
18 Ex.-Applicants-Hillstrom-26: Impact Table for Holland U.S. 53 Adjustment; and  
19  
20 Ex.-Applicants-Hillstrom-27: Summary of Public Outreach Efforts.  
21

## 22 **PROJECT OVERVIEW**

### 23 **Q. Please briefly describe the Hampton – Rochester – La Crosse 345 kV Project.**

24 A. The Hampton – Rochester – La Crosse 345 kV Project consists of a 345 kV transmission  
25 line facilities and substation connections between the Hampton Substation in Hampton,  
26 Minnesota and a new substation in the Holman, Wisconsin area and two 161 kV  
27 transmission lines in the Rochester, Minnesota area. In this proceeding, Applicants seek  
28 approval to construct the Wisconsin portion of the 345 kV line from Alma, Wisconsin to  
29 a new transmission substation, the Briggs Road Substation, located near Holmen,  
30 Wisconsin and associated 161 kV system interconnections at the new Briggs Road  
31 Substation.

### 32 **Q. When was the Joint Application to the PSCW and the WDNR filed for this Project?**

33 A. The Joint Application for the Project was filed with the PSCW and the WDNR on  
34 January 3, 2011. The original Joint Application consisted of the Introduction and

1 Overview, the Technical Support Document (“TSD”), and a series of Appendices labeled  
2 A through V. This version of the Joint Application was deemed incomplete by the  
3 PSCW and WDNR on February 1, 2011. The Applicants submitted additional  
4 information to address shortcomings in this original Application filing. All additional  
5 supplemental data was received by the PSCW by May 10, 2010. The Application was  
6 deemed complete on June 9, 2011. The complete Joint Application and Appendices A  
7 through W were filed on June 29, 2011 (“CPCN Application”). The Appendices, in  
8 conformance with the PSCW’s and WDNR’s application information filing guidelines,  
9 include the data developed by Applicants through various surveys, field evaluations,  
10 document searches, and other information gathering activities to support the Application.  
11 The CPCN Application has been marked as **Ex.- Applicants-Hillstrom-1** for the record.  
12 The material contained in **Ex.- Applicants-Hillstrom-1** comprises Applicants’  
13 application for a PSCW CPCN and WDNR Utility Permit in this proceeding seeking the  
14 PSCW’s authorization to construct the proposed facilities and the WDNR’s authorization  
15 and permits that are needed to construct the facilities. Attached to my testimony is a  
16 listing of all ERF reference numbers related to the CPCN Application.

17 **Q. What is the current status of the Minnesota regulatory approvals for the Hampton –**  
18 **Rochester – La Crosse 345 kV Project?**

19 A. A Certificate of Need (“CON”) was issued by the Minnesota Public Utilities Commission  
20 (“MPUC”) for the Minnesota portions of the Hampton – Rochester – La Crosse 345 kV  
21 Project in 2009 as part of the CapX2020 CON proceedings which approved three 345 kV  
22 transmission line projects. Order Granting Certificates of Need with Conditions, *In the*  
23 *Matter of the Application of Great River Energy, Northern States Power Company (d/b/a*

1 *Xcel Energy) and others for Certificates of Need for the CapX 345 kV Transmission*  
2 *Projects, Docket No. ET-2, E-002, et al./CN-06-1115 (May 22, 2009 as modified August*  
3 *9, 2009). A route permit application for the Minnesota portions of the Hampton –*  
4 *Rochester – La Crosse 345 kV transmission line and the North Rochester – Northern*  
5 *Hills 161 kV transmission line was submitted to the MPUC on January 19, 2010. An*  
6 *Administrative Law Judge report is pending on this route permit application and a MPUC*  
7 *hearing is expected in February or March 2012. A North Rochester – Chester 161 kV*  
8 *line was also approved by the MPUC in the CON proceeding but was submitted to the*  
9 *MPUC under a separate route permit application on September 18, 2011, Docket No.*  
10 *E002/TL-11-800.*

11 **Q. Is the Hampton – Rochester – La Crosse 345 kV Project currently undergoing any**  
12 **other state or federal review?**

13 A. Yes. One of the potential owners of the Hampton – Rochester – La Crosse 345 kV  
14 Project, Dairyland, anticipates applying for financing assistance from U.S. Department of  
15 Agriculture Rural Utilities Service (“RUS”) for its anticipated ownership interest. RUS  
16 funding of the proposed Hampton – Rochester – La Crosse 345 kV Project would  
17 constitute a federal action subject to National Environmental Policy Act analysis and  
18 Section 106 of the National Historic Preservation Act. RUS determined that an  
19 Environmental Impact Statement (“EIS”) was necessary to assess the potential for  
20 significant impacts prior to making a decision regarding whether to fund Dairyland’s  
21 ownership interest in the Hampton – Rochester – La Crosse 345 kV Project.

1 **Q. What is the current status of the RUS environmental review?**

2 A. The RUS issued its scoping report in February 2010. The RUS released the federal Draft  
3 EIS (“DEIS”) on December 16, 2011.

4 **Q. Please identify the other witnesses who will testify on behalf of the Applicants in this**  
5 **proceeding and describe the topics that each will address.**

- 6 A.
- 7 • Mr. Grant Stevenson, Senior Project Manager for at Xcel Energy Services Inc.,  
8 will describe the proposed transmission structure types, the proposed Briggs Road  
9 Substation, provide a summary of construction methods, including special  
10 construction methods to be used in sensitive environmental areas, and provide  
11 Project cost and schedule information.
  - 12 • Ms. Amanda King, a Senior Transmission Planning Engineer at NSPM, will  
13 address the need for the proposed facilities and the electrical system alternatives  
14 considered in evaluating how best to meet its obligations to provide reliable  
15 transmission service to its customers located in the areas to be served by this  
16 Project.
  - 17 • Mr. Stephen Beuning, Director, Market Operations at Xcel Energy Services Inc.  
18 will testify regarding the regional need and benefits of the Hampton – Rochester –  
19 La Crosse 345 kV Project including congestion relief and market benefits. Mr.  
20 Beuning will also discuss the eligibility of the Hampton – Rochester – La Crosse  
21 345 kV Project for regional cost-sharing.
  - 22 • Mr. Charles Thompson, Manager, Siting and Regulatory Affairs at Dairyland, will  
23 testify regarding Dairyland’s participation in this Project and information about  
the rebuild of Dairyland’s Alma-La Crosse 161 kV transmission line (“Q1 Line”).



- Mr. Tim Noeldner, Assistant Vice President of Special Projects at WPPI Energy will provide testimony regarding WPPI’s participation in this Project and information about a study conducted by WPPI Energy to assess the prospective value of power transfer capability based on the difference in wind generation capacity factors between various locations and states where wind generation could be located.

**OVERVIEW OF ROUTES UNDER CONSIDERATION**

**Q. What routes did Applicants put forward for this Project in its CPCN Application?**

A. Three complete route alternatives between Alma and the Holmen area were included in the CPCN Application: the Q1-Highway 35 Route, the Q1-Galesville Route, and Arcadia Route. Two of these routes, the Q1-Highway 35 Route and the Q1-Galesville Route, follow segments of Dairyland’s existing Q1 161 kV transmission line between the Alma generating plant and the North La Crosse Substation (“Q1 Line”). The CPCN Application also included an option, the Arcadia – Alma Option, that could replace a 1.7-mile section of Arcadia Route. The Arcadia-Alma Option is a 1.3 mile segment alternative near the Mississippi River and offers an alternative connection from the river crossing to the Arcadia Route. **Ex.-Applicants-Hillstrom-3** shows these three proposed routes and the Arcadia – Alma Option.

**Q. Briefly describe the two routes that follow the existing Q1 Line transmission corridor.**

A. The Q1-Highway 35 Route and the Q1-Galesville Route (collectively, “Q1 Routes”) start at the Mississippi River near the Alma generating plant and follow the existing Q1 Line southward as a 345/161 kV double circuit line along the GRR/STH 35 to the mouth of Waumandee Creek between the villages of Cochrane and Fountain City. At this point,

1 both routes leave the Mississippi River and extend inland, still following the existing Q1  
2 Line transmission corridor as a double circuit line. East of the Trempealeau River, these  
3 two routes diverge and follow very different paths to avoid or minimize different  
4 resource impacts.

5 The Q1-Highway 35 Route continues along the existing Q1 Line corridor as a double  
6 circuit line to where the corridor intersects with GRR/STH 35 east of the village of  
7 Trempealeau. At that point, the route leaves the existing Q1 Line corridor, takes the Q1  
8 Line with it, and parallels STH 35 east as a double circuit line across the Black River  
9 floodplain and the Van Loon State Wildlife Area to the STH 35/U.S. Highway 53  
10 interchange, where it then follows U.S. Highway 53 southward to a proposed substation  
11 site along Briggs Road southwest of Holmen.

12 The Q1-Galesville Route avoids crossing the Black River floodplain by diverging from  
13 the existing Q1 Line corridor around Delaney Road east of the Trempealeau River and  
14 running eastward as a single-circuit line, connecting with STH 54 south of Galesville and  
15 intersecting with a different, north-south, 161 kV transmission corridor east of U.S.  
16 Highway 53. From that point, it follows the transmission corridor, U.S. Highway 53,  
17 County Trunk Highway (“CTH”) HD, and Briggs Road as a double circuit line to the  
18 proposed substation site.

19 **Q. Briefly describe the Arcadia Route.**

20 A. The Arcadia Route avoids both the Mississippi River valley and the Black River  
21 floodplain, but is the longest of the three proposed routes. The Arcadia Route utilizes the  
22 same Mississippi River crossing at Alma, then follows an existing east-west 161 kV  
23 transmission corridor over the river bluffs as a 345/161 kV double circuit line to a point

1 across the Trempealeau River northeast of the city of Arcadia. The route then turns south  
2 following an existing north-south 69 kV transmission corridor generally as a 345/69 kV  
3 double circuit line to STH 54 east of Centerville, and from there it heads east on STH 54  
4 and south of the city of Galesville along the same route as the Q1-Galesville Route to the  
5 proposed Briggs Road Substation.

6 **Q. Provide a short description of the Arcadia-Alma Option.**

7 A. The Arcadia-Alma Option is a 1.3-mile segment alternative near the Mississippi River  
8 and offers an alternative connection from the river crossing to the Arcadia Route. It  
9 crosses the Mississippi River at the same location as the Arcadia Route and follows a  
10 short portion of the existing 161 kV corridor to the southeast prior to diverting up the  
11 bluff through a forested area, some agricultural land and a rural residential development,  
12 prior to reconnecting with the existing 161 kV corridor and the Arcadia Route.

13 **Q. Were additional route segments proposed by state agencies?**

14 A. Yes. WisDOT expressed concerns about a route along the GRR/STH 35 and  
15 recommended an alternative, the “STH 88 Connector Alternative,” that would run from  
16 the Mississippi River crossing at Alma east as a 345/161 double circuit line to a point  
17 north of Waumandee Creek Valley and then south along STH 88 as a single circuit line to  
18 connect the Q1-Highway 35 or Q1-Galesville Route from the north. WisDOT expressed  
19 its opinion in its December 28, 2010 letter that WisDOT views STH 88 “as a preferable  
20 alternative.” A copy of WisDOT’s December 28, 2010 and January 27, 2011 letters  
21 regarding STH 88 route alternatives are **Ex.-Applicants-Hillstrom-4 and Ex.-**

22 **Applicants-Hillstrom-5.** Applicants provided two optional paths down the valley along

1 “STH 88 Connector Option A” and “STH 88 Connector Option B” in response to  
2 WisDOT’s request.

3 WDNR requested the “Ettrick Connector Alternative” for the Arcadia Route. A copy of  
4 WDNR’s March 30, 2011 letter is **Ex.-Applicants-Hillstrom-6**. The Ettrick Connector  
5 Alternative is a modification to the Applicants’ Arcadia Route. The Ettrick Connector  
6 diverts from the Arcadia Route at a point approximately one-half mile east of STH 93  
7 and Fox Coulee Lane, and continues east approximately 8 miles following an existing  
8 Dairyland line to near Ettrick, Wisconsin. The Ettrick Connector then turns south  
9 following the Xcel Energy Tremval-Mayfair 161 kV line approximately 6 miles until  
10 rejoining the Arcadia route north of the Black River.

11 **Q. Since filing the CPCN Application, have Applicants proposed any additional**  
12 **segments or alignments for consideration?**

13 A. Yes. Applicants have proposed minor adjustments to the Q1-Highway 35 and Q1-  
14 Galesville routes to avoid any overlap with WisDOT right-of-way along GRR/STH 35  
15 (“Highway 35 Adjustment”). Applicants have also analyzed a short segment that would  
16 allow the Q1-Highway 35 Route to utilize the same north/south alignment west of U.S.  
17 Highway 53 through the Town of Holland. The segment joins the two routes south of the  
18 U.S. Highway 53/ STH 35 interchange (“Holland U.S. 53 Adjustment”). These  
19 adjustments are discussed in more detail later in my testimony.

20 **APPLICANTS’ RECOMMENDED ROUTE**

21 **Q. Have Applicants identified one of these routes as their preferred route?**

22 A. Yes. Applicants prefer the Q1-Highway 35 Route.

1 **Q. Why do Applicants prefer the Q1-Highway 35 Route?**

2 A. All of the routes under consideration in this proceeding are viable and constructible  
3 routes that comply with the statutory and administrative rule requirements for issuance of  
4 a CPCN by the PSCW for the Project. Applicants believe the Q1-Highway 35 Route is  
5 the route that causes the least impact to people and the environment because it is the most  
6 direct route and utilizes the greatest percentage of existing utility, highway, and railroad  
7 corridors consistent with the siting priorities law, Wis. Stat. § 1.12(6) and state routing  
8 criteria. In addition, the Q1-Highway 35 Route would be constructed as a double circuit  
9 line along the Dairyland owned Q-1 Line for its entire length thus avoiding the creation  
10 of a new infrastructure corridor. It is also the least cost option.

11 **APPLICANTS' PROPOSED ROUTES**

12 **Q. Please describe the process that Applicants used to identify, evaluate, and select the**  
13 **proposed routes for this Project?**

14 A. The Applicants determined the proposed routes after more than three years of careful  
15 study and significant public involvement and input. Route development for the Hampton  
16 – Rochester – La Crosse 345 kV Project began in 2007 in connection with the Minnesota  
17 CON process. At this stage, a broad overall study area and initial corridors were defined,  
18 within which it was expected routes would be developed (routing corridors). In late  
19 2007/early 2008, the routing team developed revised corridors (macro-corridors) from  
20 Hampton to La Crosse for the RUS EIS process. In December 2008, route options within  
21 the macro-corridors were modified. Beginning in June 2009, the routes were further  
22 refined through late 2010, when the CPCN Application was submitted.

1 **Q. How did Applicants develop routing corridors for the Hampton – Rochester – La**  
2 **Crosse 345 kV Project?**

3 A. Applicants established broad routing corridors in Minnesota and Wisconsin based on the  
4 identified purpose and need and required interconnections between Minnesota and La  
5 Crosse. The major constraint in the study area is the Mississippi River, which must be  
6 crossed to connect the Rochester area to the La Crosse area. The routing corridors  
7 included four potential crossing sites at the Mississippi River. These crossings were  
8 evaluated assuming that the new 345 kV line would be collocated with existing facilities.  
9 The four potential crossing sites identified were:

- 10 • Alma, Wisconsin, where an existing 161 kV/69 kV double circuit transmission  
11 line crosses the river.
- 12 • Winona, Wisconsin, where an existing 69 kV transmission line built to 161 kV  
13 specifications crosses the river.
- 14 • Between La Crescent, Minnesota and La Crosse, Wisconsin, where an existing 69  
15 kV transmission line built to 161 kV specifications crosses the river.
- 16 • Trempealeau, Wisconsin, which does not have an existing transmission line;  
17 however, Lock and Dam No. 6 is located in this area, and the crossing could occur  
18 at a narrow section of the river containing several islands that could support  
19 transmission line poles.

20 **Q. In evaluating possible corridors in Wisconsin, did Applicants consider corridor**  
21 **sharing?**

22 A. Yes. In Wisconsin, routing corridors for the Project were drawn around routing  
23 opportunities such as existing transmission lines, railroad corridors and highways in

1 accord with Wisconsin’s siting priorities law, Wis. Stat. § 1.12(6). This law provides that  
2 “[i]n siting of new transmission lines . . . it is the policy of the state that, to the greatest  
3 extent feasible that is consistent with economic and engineering considerations, reliability  
4 of the electric system, and protection of the environment, the following corridors should  
5 be utilized in the following order of priority:

- 6 a) Existing utility corridors.
- 7 b) Highway and railroad corridors.
- 8 c) Recreational trails, to the extent the facilities may be constructed below ground  
9 and do not significantly impact environmentally sensitive areas.
- 10 d) New corridors.

11 Wisconsin Statute § 196.025(1m) directs the PSCW to implement the siting priorities law  
12 when making CPCN determinations.

13 **Q. What existing transmission line corridors did Applicants identify during the routing**  
14 **process?**

15 A. The existing Q1 Line was identified as the most direct route between both the Alma or  
16 Winona River crossings and the La Crosse area. In addition to the Q1 Line transmission  
17 corridor, highway, railroad, and other transmission lines were identified in close  
18 proximity to the Q1 Line. Development of potential routes along the Q1 Line corridor  
19 assumed that the existing 161 kV line could be double-circuited on the same poles as the  
20 345 kV transmission line proposed as part of the Project. The new double circuit line  
21 would also be built alongside significant lengths of highway and railroad right-of-ways.  
22 This corridor sharing and line consolidation would avoid creation of new corridor and be  
23 consistent with Wis. Stat. § 1.12(6), which prioritizes use of existing high voltage

1 transmission corridors, highways, and railroads when routing a new transmission line.

2 During this initial phase of route development, the Applicants focused on the Q1 Line

3 transmission corridor because the multiple Mississippi River crossing locations provided

4 route alternatives to the Q1 Line corridor.

5 **Q. How was Alma identified as the most appropriate Mississippi River crossing?**

6 A. In approximately November 2009 an analysis of the three river crossings showed that

7 Alma was the superior Mississippi River crossing. Based on any objective measure –

8 including a systematic analysis of routing data for the entire project area as well as

9 localized Mississippi River considerations – overall impacts in both states would be

10 reduced by crossing the Mississippi River at Alma. The key factors that support the

11 Alma crossing are:

- 12 • Between Alma and La Crosse, there are multiple routing opportunities that follow
- 13 existing transmission line corridors.
- 14 • Routes to the Alma crossing on the Minnesota side of the river follow an existing
- 15 transmission line corridor through the hills along the river; other crossings would
- 16 require creation of a new 10- to 15-mile transmission corridor through the bluff
- 17 land driftless area.
- 18 • The Alma crossing would result in the shortest crossing of the Mississippi River
- 19 floodplain, the shortest crossing of the Upper Mississippi River National Wildlife
- 20 and Fish Refuge (“Refuge”) and the least wetlands impacts.
- 21 • The USFWS prefers the Alma crossing over the other two crossings.



- 1           • The La Crescent crossing would require substantial impacts to developed land  
2           including relocation of existing businesses to establish an endpoint substation or  
3           would require routing the 345 kV line through the La Crosse Marsh wetland.

4 **Q. After the Alma crossing was established, what was the next step in the route**  
5 **development process?**

6 A. With the data showing that the most appropriate river crossing was Alma, routing focused  
7 on identifying routes between Alma and a North La Crosse area substation. The Q1 Line  
8 corridor is the most direct route between Alma and North La Crosse as well as the route  
9 with the most corridor sharing because it follows the existing Dairyland Q1 Line  
10 transmission corridor, highway, and railroad corridors. The Q1 Line corridor was the  
11 original Q1 Route.

12 **Q. Describe some of the challenges posed by utilizing the existing Q1 Line corridor.**

13 A. The northern 8 miles of this corridor is near GRR/STH 35, a designated National Scenic  
14 Byway, along which WisDOT holds scenic easements. The southern portion of the Q1  
15 Line corridor crosses the Refuge and the Van Loon Wildlife Area, both within the Black  
16 River floodplain. The WDNR, WisDOT, and USFWS expressed several concerns with  
17 utilizing the Q1 Line corridor for the proposed 345 kV line, including potential aesthetic  
18 and environmental impacts along the GRR and permitability of the route across federal  
19 lands and state wetland areas in the Black River floodplain.

20 **Q. What were the concerns raised about potential aesthetic impacts of following the Q1**  
21 **Line corridor along the GRR/STH 35?**

22 A. The GRR is a designated National Scenic Byway. The Wisconsin Mississippi River  
23 Parkway Commission (“WI-MRPC”), made up of representatives from communities

1 located along the Wisconsin GRR, oversees the Wisconsin GRR. Potential aesthetic  
2 impacts to the GRR National Scenic Byway were raised by WI-MRPC and WisDOT.  
3 These aesthetic concerns were primarily directed to the northernmost 8 miles of the Q1  
4 Route. WisDOT also expressed concerns about the potential incompatibility of the  
5 Project with existing scenic easements held by WisDOT along the GRR.

6 **Q. What were the concerns raised about potential biological impacts of following the**  
7 **Q1 Line corridor through the Black River floodplain?**

8 A. The original Q1 Route follows the existing 161 kV line across the Black River and its  
9 forested floodplain near Holmen. The Black River floodplain is up to 3 miles wide and  
10 approximately 7 miles long just northwest of the route's endpoint in Holmen. Regardless  
11 of the route selected, the proposed 345 kV line must cross the Black River to connect into  
12 the 161 kV system serving the La Crosse area. The Black River floodplain is comprised  
13 of state, federal, and private lands. Federal lands in the Black River area are part of the  
14 Refuge and which is limited to the southern Project area. The Van Loon Wildlife Area is  
15 a 3,918-acre state-owned property located in the northwest corner of La Crosse County,  
16 about 3.5 miles northwest of the village of Holmen. Routes crossing the Black River  
17 would likely cross short segments of Van Loon lands. Crossings of these state and  
18 federal lands would require permits from both the WDNR and the USFWS.

19 **Q. What crossing locations of the Black River floodplain were evaluated by**  
20 **Applicants?**

21 A. Applicants identified three existing corridors that could be used: the existing Q1 Line, the  
22 GRR/STH 35, and an existing 69 kV line near the Seven Bridges Trail. In comparing the  
23 three alignments across the Black River, the Applicants' interpretation of the data (see

1 CPCN Application Table 2.2-3) found that that the Q1 Line corridor, by following an  
2 existing transmission corridor with the shortest route distance, best minimized impacts.  
3 A map of these three Black River crossing alternatives is presented in Figure 2.2-6 of the  
4 CPCN Application.

5 Based on concerns raised by the WDNR, Applicants examined a crossing of the Black  
6 River adjacent to the U.S. Highway 53 (Hunters Bridge) east of Galesville. This location  
7 would not require crossing of wetlands. Two of the three routes presented in the CPCN  
8 Application (Arcadia and Q1-Galesville) share this crossing location.

9 **Q. Did Applicants receive comments from the WDNR regarding these Black River**  
10 **crossing options?**

11 A. Applicants approached the WDNR to receive input on the Black River crossing options.  
12 WDNR staff indicated that any crossing of the Black River floodplain might not be  
13 permissible by WDNR and encouraged the Applicants to develop alternative routes that  
14 do not impact the Black River floodplain.

15 **Q. Did Applicants identify impact minimization options to address WDNR concerns?**

16 A. Yes. The Applicants developed detailed construction plans (CPCN Application,  
17 Appendix J) identifying the methods that would be used to construct the proposed  
18 transmission line along this existing Q1 Line corridor to minimize temporary impacts.  
19 Temporary impact minimization measures included winter construction and helicopter  
20 access to areas that were difficult to reach to minimize traffic and ground disturbance.  
21 Vibratory caisson foundations, which do not require excavation or the use of concrete or  
22 other fill, would be used. Tree clearing impacts were minimized through the use of  
23 specialized poles that required the least amount of new right-of-way, while keeping pole

1 heights and wires in a single plane and at elevations below treetop height to minimize  
2 potential impacts to birds.

3 **Q. How has WDNR responded to these proposals?**

4 A. To date, WDNR has not provided any comments on these proposals. Instead, WDNR has  
5 maintained that it may not be able to permit routes that cross the Black River floodplain.  
6 Applicants requested specific regulatory or legal authority for WDNR's stance but did  
7 not receive any.

8 **Q. Did Applicants receive feedback from the USFWS regarding the permissibility of  
9 crossing the Refuge along the Q1 Line alignment?**

10 A. The Q1 Line corridor would require a special use permit from USFWS to occupy Refuge  
11 lands. The Applicants met with USFWS several times to discuss the Black River area.  
12 After preparing the construction plan and an assessment of temporary and permanent  
13 impacts, the Applicants inquired as to the permissibility of a route through the Refuge.  
14 As described, the Applicants presented detailed construction plans, access routes,  
15 itemizations of tree clearing needs, and a range of four different pole types. The  
16 Applicants also offered mitigation in the form of exchanging an existing easement across  
17 the Mississippi River near the Trempealeau National Wildlife Refuge for a permit to  
18 cross the Refuge lands at the Black River and to pursue purchase of private land for  
19 inclusion into the Refuge. After assessing all of the above information, USFWS issued a  
20 letter on August 16, 2010 which indicated the Q1 Line corridor was not permissible under  
21 its rules governing what compatible uses are allowed in Refuge lands. A copy of this  
22 letter is included in Appendix P of the CPCN Application.

1 **Q. How do the routes proposed in the Application respond to USFWS and WDNR**  
2 **concerns?**

3 A. Based on the USFWS letter and supporting rule citation indicating that it could not permit  
4 the Q1 Line corridor, Applicants modified the original Q1 Route to follow the GRR/STH  
5 35 across the Black River floodplain. Applicants termed this route the Q1-Highway 35  
6 Route. The Q1-Highway 35 Route is 43 miles and would be constructed as a double  
7 circuit line with the Dairyland Q1 Line for its entire length. Also, in response to specific  
8 WDNR concerns about crossing the Black River along the Q1 Line corridor, the  
9 Applicants developed the Q1-Galesville Route which utilizes a connector route segment  
10 from the original Q1 Route to the Galesville area to form another route that avoided  
11 impacts to the Black River floodplain. Finally, the Arcadia Route was developed to  
12 avoid both aesthetic impacts to the GRR/STH 35 and impacts related to crossing the  
13 Black River floodplain.

14 **GENERAL ENVIRONMENTAL CHARACTERISTICS OF THE APPLICANTS'**  
15 **PROPOSED ROUTES**

16 **Q. Please summarize and compare the environmental characteristics of the proposed**  
17 **routes.**

18 A. With the connectors, there are a total of eight different end-to-end route alternatives.  
19 Each of the routes has different environmental features. A high-level summary of the  
20 three main routes are as follows:

21 Q1-Highway 35 Route: This is the shortest route and shares the greatest percentage of its  
22 right-of-way with existing transmission lines, roads, and railroad corridors. While this  
23 route does not show a 100 percent sharing of transmission line right-of-way, it would  
24 share the entire length with an existing 161 kV transmission line. The areas where it is

1 not shown to share existing right-of-way are areas where the route of the existing Q1  
2 Line alignment was modified to avoid residences or natural resources. This route also  
3 has a relatively low number of homes located within 300 of the proposed route centerline.  
4 This route avoids federal land in the Refuge by following STH 35 and U.S. Highway 53  
5 along its southernmost 7 miles.

6 Arcadia Route: The Arcadia Route avoids both the aesthetic impacts to the GRR and the  
7 potential environmental impacts to the Black River floodplain, but is the longest of the  
8 three proposed routes and has greater impacts to homes than the Q1-Highway 35 route.

9 Q1-Galesville Route: Of the three main routes, this route has the greatest number of  
10 homes located within 300 feet of the proposed route centerline, has the fewest number of  
11 stream crossings, and crosses the fewest acres of wooded wetlands. This route also  
12 includes an approximately 7-mile long segment along U.S. Highway 53/93 south of  
13 Galesville where there is no existing transmission line

14 A table comparing the relative impacts among the route alternatives, including  
15 connectors, is attached to my testimony as **Ex.–Applicants-Hillstrom-7** at pp. 1-2.

## 16 **PROJECT-RELATED IMPACTS AND PROPOSED MINIMIZATION TECHNIQUES**

### 17 **Waterway and Wetland Impacts and Minimization Techniques**

18 **Q. Will the Project require waterway crossings or impacts to wetlands?**

19 A. Project construction would require crossing several perennial and intermittent creeks,  
20 streams, and the Mississippi and Black rivers. Depending on which route is selected,  
21 some transmission line poles would require placement in the floodplains of the  
22 Mississippi and Black rivers.

1 **Q. Generally speaking, what actions have and will Applicants take to avoid and**  
2 **minimize adverse impacts to wetlands?**

3 A. Temporary impacts to wetlands may occur if they need to be crossed during construction  
4 of the transmission line. No staging or stringing setup areas would be placed within or  
5 adjacent to water resources, as practicable. Applicants would avoid major disturbance of  
6 individual wetlands and drainage systems during construction by spanning wetlands and  
7 drainage systems, where possible. When it is not possible to span the wetland or if access  
8 paths cross wetlands, the Applicants would draw on several options during construction  
9 to minimize impacts: (1) When possible, construction would be scheduled during frozen  
10 ground conditions and construction access would utilize ice road construction techniques  
11 which may include the use of mats; (2) Crews would attempt to access the wetland with  
12 the least amount of physical impact to the wetland (i.e. shortest route); (3) Structures  
13 would be assembled on upland areas before they are brought to the site for installation,  
14 when practicable; (4) When construction during winter is not possible, construction mats  
15 would be used where wetlands would be impacted. Additionally, the Applicants have  
16 access to low impact or tracked construction vehicles designed to minimize soil impacts  
17 in wet areas; (5) Wetlands impacted would be restored as required by the U.S. Army  
18 Corp of Engineers (“USACE”) and WDNR; (6) When winter construction or access via  
19 construction matting is not practical, access and delivery of labor, equipment and material  
20 would be performed by heavy lift helicopter.  
21 Wetland vegetation would be restored following construction. Applicants would obtain  
22 necessary Section 404 permits from USACE and state level permits from the WDNR.

1 **Mississippi River Crossing Impacts and Minimization Techniques**

2 **Q. Regarding the Mississippi River crossing, what actions will Applicants take to avoid**  
3 **and minimize adverse impacts?**

4 A. Crossing the Mississippi River and Refuge will require a special use permit from the  
5 USFWS and may involve impacts such as temporary habitat disturbance associated with  
6 construction activities; permanent modification of habitat from forested to non-forested  
7 wetland associated with clearing for construction access; and temporary shoreline and  
8 river bottom disturbance associated with access from barges. Final construction plans for  
9 work in the refuge will be coordinated with the USFWS as part of the special use permit  
10 process. General habitat impacts in these wetlands are not expected to impact local  
11 populations or survivorship because construction will occur within an existing  
12 transmission corridor and other unaffected habitats are available nearby to support  
13 displaced animals. Habitat conversion from forested to non-forested wetland due to  
14 clearing may need associated state and federal permits. Temporary shoreline and river  
15 bottom disturbance associated with access from barges in the Mississippi River may  
16 impact state listed mussels. If at the time of construction, state listed mussels are located  
17 within proposed access areas, qualified aquatic scientists will be involved in the process  
18 of safely moving species to unaffected areas. Additional indirect impacts to surface  
19 water and wetlands along the alternative routes could include sedimentation reaching  
20 surface waters during construction due to ground disturbance by excavation, grading,  
21 construction traffic and dewatering of holes drilled for transmission poles. This could  
22 temporarily degrade water quality due to turbidity. These impacts would be avoided and  
23 minimized using appropriate sediment control practices and Best Management Practices  
24 (“BMPs”). These practices would be detailed in the Construction Site Erosion, Storm



1 Water Control Plan and in the Storm Water Pollution Prevention Plan (“SWPPP”) that  
2 would be completed prior to the start of construction.

3 Once the Project is completed, there would be no significant impacts on surface water  
4 quality because wetland impacts would be minimized and mitigated, disturbed soil would  
5 be restored to previous conditions or better, and the amount of land area converted to an  
6 impervious surface would be small.

7 The Applicants would maintain sound water and soil conservation practices during  
8 construction and operation of the Project to protect topsoil and adjacent water resources  
9 and minimize soil erosion. Construction would be completed according to WDNR and  
10 USACE permit requirements.

### 11 **Black River Floodplain Impacts and Minimization Techniques**

12 **Q. Which of the proposed routes cross the Black River floodplain?**

13 A. The Q1-Highway 35 Route parallels GRR/STH 35 crosses the Black River floodplain and  
14 the Van Loon Wildlife Area. Applicants propose to place the poles outside of the  
15 GRR/STH 35 right-of-way and WisDOT’s scenic easements, approximately 350 feet  
16 north of the GRR/STH 35. This alignment would allow a tree buffer that would act as a  
17 visual screening between the proposed transmission line and the GRR/STH 35.

18 **Q. As you mentioned previously, the WDNR has expressed concerns about the Q1-  
19 Highway 35 Route’s crossing of the Black River floodplain. Can you describe the  
20 importance of this area?**

21 A. The Black River floodplain is a large forested wetland complex located at the juncture of  
22 La Crosse and Trempealeau counties. The Black River floodplain is comprised of state,  
23 federal, and private lands. Federal lands in the Black River area are part of the Refuge.  
24 The Van Loon Wildlife Area is a 3,918-acre state-owned property located in the

1 northwest corner of La Crosse County, about 3.5 miles northwest of the village of  
2 Holmen.

3 **Q. The DEIS states that the Q1-Highway 35 Route will result in direct and indirect**  
4 **impacts to the Black River floodplain forest (p. 118). Are Applicants proposing any**  
5 **mitigation measures?**

6 A. Yes. As part of the Q1-Highway 35 Route proposal, Applicants plan to remove the  
7 existing Q1 Line from its current alignment in the Van Loon Wildlife Area and the  
8 Refuge and double circuit the rebuilt Q1 Line with the new 345 kV line parallel to STH  
9 35. The result of the Q1 Highway 35 Route would be to remove three miles of an  
10 existing transmission corridor within the Van Loon Wildlife Area and move it to a two-  
11 mile, already disturbed corridor adjacent to a highway. The WDNR previously requested  
12 the relocation of the Q1 Line from the Van Loon Wildlife Area to STH 35 to reduce  
13 fragmentation in a letter dated January 22, 1993. A copy of this letter was included as  
14 Attachment B to Applicants' November 28, 2011 Comments on the DEIS. Applicants'  
15 November 28, 2011 Comments are **Ex.-Applicants-Hillstrom-8**. Once the Q1 Line is  
16 moved, the current right-of-way of the Q1 Line could be subject to a restoration plan.

17 **Q. Are any other mitigation measures being considered?**

18 A. Applicants have proposed to explore the purchase of private property for incorporation  
19 into the Van Loon Wildlife Area and Applicants have made a commitment to schedule  
20 construction work to avoid potential avian impacts. Applicants have discussed further  
21 consolidation of existing power lines in the Black River floodplain by moving an existing  
22 161 kV line at Seven Bridges Road to the proposed corridor north of STH 35. Applicants  
23 have also suggested habitat improvement measures such as wildlife passages below

1 GRR/STH 35 and forest management to open up the canopy for improved habitat for  
2 endangered species such as the Eastern Massasauga Rattlesnake (“EMR”). In addition,  
3 as described in greater detail in the testimony of Mr. Stevenson, Applicants have  
4 proposed the use of helicopter construction methods. Applicants believe that these  
5 proposed mitigation and impact minimization measures could result in a net benefit to the  
6 functions and values of the Black River floodplain. The WDNR has not commented on  
7 Applicants’ proposed mitigation measures.

8 **Q. The DEIS states that the Q1-Highway 35 Route would increase the width of the**  
9 **STH 35 corridor thus resulting in increased fragmentation of the Black River**  
10 **floodplain forest (p. 118-119). Do you agree with this assessment?**

11 A. No. This statement does not take into account the de-fragmentation of the Black River  
12 floodplain that would occur as a result of construction on this route. The Q1-Highway 35  
13 route would remove an existing transmission line corridor and replace it adjacent to an  
14 existing highway. The current GRR/STH 35 corridor represents a more intense  
15 fragmentation of the floodplain habitat compared to a transmission corridor and is an  
16 almost impassable hindrance to wildlife. GRR/STH 35 also represents a continual  
17 harassment corridor because of noise and visual disturbance generated by passing  
18 vehicles. In contrast, a transmission line corridor does not hinder passage of wildlife nor  
19 does it cause noise, pollution or light. From an ecological standpoint, expansion of this  
20 corridor by the proposed Q1-Highway 35 Route right-of-way should not be considered a  
21 fully cumulative impact. Furthermore, the mitigation of consolidating the existing Q1  
22 Line with the proposed 345 kV line along the highway would result in a lessening of  
23 fragmentation of the Black River floodplain. A table comparing the relative impacts to

1 the Black River floodplain among the Q1 route alternatives is **Ex.-Applicants-**  
2 **Hillstrom-7** at p. 3.

3 **Rare Species Impacts and Mitigation Measures**

4 **Q. Describe Applicants' review of the Project's potential impacts to rare species.**

5 A. Information concerning the presence of rare species, including threatened, endangered or  
6 special concern, within 2 miles of the proposed routes was obtained through a review of  
7 the Wisconsin Natural Heritage Inventory ("WNHI") database by a qualified  
8 environmental specialist with Natural Heritage Inventory ("NHI") Screening and  
9 Methodology Training. Both historic (pre-1970) and non-historic (current since 1970)  
10 element occurrence records were evaluated. Applicants also consulted extensively with  
11 local WDNR personnel to verify and refine the rare species studies presented in the  
12 CPCN Application.

13 **Q. Generally, what did Applicants' review of the WNHI database reveal about the**  
14 **Project's potential impact on rare species?**

15 A. The WNHI database notes the presence of 33 threatened, endangered, or special concern  
16 species (historic occurrences) within 2 miles of the routes. The WNHI database notes the  
17 presence of 78 threatened, endangered or special concern species (non-historic  
18 occurrences) and 16 natural communities within 2 miles of the routes. Several of these  
19 species and natural communities occur more than once along the routes.  
20 Applicants submitted a report describing the methods and results of rare species report  
21 ("Rare Species Report") to the WDNR and PSCW for review. The Rare Species Report  
22 is **Ex.-Applicants-Hillstrom-9**.

1 **Q. How do Applicants propose to avoid impacts to rare species whose potential habitat**  
2 **was identified in the Rare Species Report?**

3 A. If the PSCW approves the Project and selects a route, Applicants will work with WDNR  
4 to identify any further field investigations needed to determine the presence or absence of  
5 these species and determine appropriate avoidance protocols. To protect plant species,  
6 Applicants will typically mark areas where construction crews must not access. For  
7 animal species, Applicants will work with WDNR to determine appropriate construction  
8 protocols to avoid impacts.

9 **Q. The DEIS for this Project states the EMR may be present along Q1-Highway 35**  
10 **Route (Segment 8B) within the Van Loon Wildlife Area (p. 105). Do Applicants**  
11 **agree that the Van Loon Wildlife Area is a suitable habitat for the EMR?**

12 A. The Van Loon Wildlife Area has primarily developed into late successional vegetation,  
13 *i.e.*, forest canopy greater than 60 percent. The recently published extinction model for  
14 this species, finds that this vegetation type puts into peril the long term outlook for any  
15 population growth of EMR within the Van Loon Wildlife Area as the EMR prefers  
16 habitats with more sun. “Range wide Extinction Risk Modeling for the Eastern  
17 Massasauga Rattlesnake (*Sistrurus catenatus catenatus*)-Final Report,” Faust, L. J.  
18 Szymanski and M. Redmer, USFWS and Lincoln Park Zoo, 2011 at p. 66.

19 **Q. How would selection of the Q1-Highway 35 Route improve the habitat for the**  
20 **EMR?**

21 A. Removal of forested floodplain species along the Q1-Highway 35 Route (Segment 8B)  
22 would remove the closed canopy along its right of way and open up larger habitat areas  
23 for the EMR. This would also allow for the removal of the current Q1 Line from its

1 easement and appropriate habitat restoration actions within this area. In addition,  
2 installation of wildlife passageways under GRR/STH 35, which Applicants have  
3 suggested, in this area would allow passage by snakes, turtles and other wildlife and  
4 improve hydrological flow during flooding. WDNR has not commented on Applicants'  
5 suggestion.

6 **Q. In its comments on the DEIS, USFWS stated that additional surveys for EMR**  
7 **should be conducted if the Q1-Highway 35 Route is selected. Are Applicants willing**  
8 **to conduct such survey work?**

9 A. Yes. Applicants are willing to conduct these additional surveys in accord with the  
10 USFWS's protocol. If the Q1-Highway 35 Route is selected, the Applicants will also  
11 work with USFWS and WDNR to develop measures to avoid, minimize, and mitigate  
12 adverse effects to the EMR. USFWS's December 22, 2011 comments on the DEIS are  
13 **Ex.-Applicants-Hillstrom-10.**

14 **Q. How do Applicants propose to minimize potential impacts to EMR if the Q1-**  
15 **Highway 35 Route is selected?**

16 A. We have developed construction techniques that minimize the risk to EMR. These  
17 methods include helicopter construction, the use of vibratory caisson foundations, and  
18 winter construction timing. These construction methods combined with pre-construction  
19 surveys can minimize the chance that any EMR would be harmed or disturbed during  
20 construction.

1 **Q. USFWS’s DEIS comments also express concerns about the Project’s potential**  
2 **impacts on bald eagles and other migratory birds. Do Applicants have any response**  
3 **to the concerns raised by USFWS?**

4 A. Yes, the USFWS makes broad conclusions that do not appear to be supported by any data  
5 and appear to be in conflict with the bird impact studies presented in the Federal DEIS.

6 An excerpt from the Federal DEIS is **Ex.-Applicants-Hillstrom-11**. The Federal DEIS  
7 contains an exhaustive study of potential impacts to various species of birds and  
8 concludes that impacts to studied bird populations, including eagles, are not likely.

9 The USFWS letter states that the Q1-Highway 35 route would have “substantial adverse  
10 impacts to migratory birds” in the Black River floodplain. It is unclear whether the

11 USFWS considered that the proposed structures in this area would be 75- to 110-feet tall  
12 and that very little of the proposed structures would be above tree level. Applicants note  
13 that there are many transmission lines in the vicinity of the Refuge, including lines that  
14 are completely surrounded by Refuge lands. Applicants have a long history of collection  
15 of bird incident data including semi-annual reporting of this data to the USFWS.

16 USFWS does not present any data to support their concerns; instead they reference an  
17 incident where songbirds collided with a television transmission tower near Galesville.

18 This example is not applicable because it is an incident at a different type of tower than is  
19 proposed by the Project. The USFWS website:

20 <http://www.fws.gov/habitatconservation/communicationtowers.html> states that “Lighted  
21 guy-wired towers taller than 199 feet above ground level (AGL), are particularly  
22 hazardous to migratory birds, especially night-migrating song birds.” A screenshot of

1 this page of the USFWS website is **Ex.-Applicants-Hillstrom-12**. Neither lighted  
2 structures nor guy wires are proposed for the Project.

3 Applicants intend to work with USFWS on performing additional bird monitoring  
4 through the winter. The monitoring will focus on identifying eagle nests, important eagle  
5 areas, and general bird movements.

6 **Q. USFWS notes that bald eagles are drawn to portions of the Q1-Highway 35 Route**  
7 **because a large chicken production plant in Arcadia provides ample food source by**  
8 **spreading chicken waste in fields from Arcadia to Galesville along STH 35. Do**  
9 **Applicants have any concerns regarding the disposal method utilized by this chicken**  
10 **production plant?**

11 A. Yes, the disposal method as described appears to be “artificially feeding bald eagles,” a  
12 practice that the USFWS discourages because it “can disrupt their essential behavioral  
13 patterns and put them at increased risk from power lines, collision with windows and  
14 cars, and other mortality factors.” USFWS, *National Bald Eagle Management*  
15 *Guidelines* at p. 15, May 2007. A copy of these guidelines is **Ex.-Applicants-Hillstrom-**  
16 **13**. In addition, the practice of disposing of chicken carcasses and other waste in farm  
17 fields may be a temporary practice. When this practice is stopped, eagles will no longer  
18 be drawn to these areas. Applicants do not believe that artificial feeding of protected  
19 species should be a factor in siting transmission lines.

## 20 **Agricultural Impacts and Mitigation Measures**

21 **Q. Please describe how Applicants will minimize impacts to agricultural lands.**

22 A. Potential agricultural impacts of the Project would generally be short-term and include  
23 temporary construction-related impacts, such as loss of crops. Long-term impacts due to  
24 transmission pole placement would also occur. Many of the route segments in



1 agricultural areas run along fence lines or between fields. Some of the route segments  
2 run along public road right-of-way, and the proposed poles would be located along the  
3 edge of the right-of-way, and the farm field, where practicable. These route-siting  
4 practices should minimize the loss of tillable land and any problems associated with use  
5 of agricultural equipment. If issues arise, conversations could continue during the real  
6 estate acquisition process to address property owner concerns.

### 7 **Aesthetic Impacts and Mitigation Measures**

8 **Q. Describe how Applicants have or will minimize the aesthetic impacts associated with**  
9 **the proposed routes.**

10 A. Applicants are proposing above ground construction of the transmission line and  
11 structures, and thus, they will be visible. Applicants have attempted to minimize visual  
12 impacts to the extent possible by proposing to locate the lines along existing utility or  
13 highway corridors in many areas or along field edges where possible.

14 The northern portion of the Q1 Routes are located near the GRR/STH 35 along the  
15 Mississippi River for approximately 8 miles. Both WisDOT and the WI-MRPC have  
16 raised concerns about potential aesthetic impacts to the GRR/STH 35 relating to the Q1  
17 Routes.

18 **Q. What is the significance of the GRR?**

19 A. The GRR is a 3,000 mile network of roads along the Mississippi River extending to the  
20 Gulf of Mexico. The Wisconsin segment is approximately 250 miles in length, running  
21 through Pierce, Pepin, Buffalo, Trempealeau, La Crosse, Vernon, Crawford, and Grant  
22 counties. The Wisconsin GRR is maintained in partnership between WisDOT and WI-  
23 MRPC. The Wisconsin GRR was designated as a National Scenic Byway by the U.S.  
24 Department of Transportation Federal Highway Administration National Scenic Byway

1 Program in 2000. The State of Wisconsin has acquired scenic easements along most of  
2 the approximately 250 miles of the Wisconsin GRR. These scenic easements are  
3 managed by WisDOT (“WisDOT Easements”). STH 35 in the Project area is designated  
4 as part of the Wisconsin GRR.

5 **Scenic Easements**

6 **Q. The existing Q1 Line is located along the GRR/STH 35. When was the Q1 Line**  
7 **constructed?**

8 A. During the 1940s, Dairyland obtained right-of-way easements to construct the Q1 Line  
9 along segments of STH 35 that are along the Q1 Routes (“Q1 Easements”). The Q1  
10 Easements, generally in blanket form, provide, in part, that Dairyland and its “successors  
11 and assigns” have the right to “construct . . . replace . . . electric transmission and/or  
12 distribution line, or lines or system, of single pole or ‘H’ frame type structure.”

13 **Q. When did the state of Wisconsin obtain scenic easements along the GRR?**

14 A. WisDOT began purchasing scenic easements along the GRR in 1951. Although a  
15 majority of the WisDOT Easements along the segment of GRR/STH 35 that is part of the  
16 Q1 Routes were not acquired until later, primarily in 1958 and 1963.

17 **Q. How large are the scenic easement areas?**

18 A. The exterior boundary of the scenic easements in the Project area are generally located at  
19 a distance of 350 feet off the centerline of GRR/STH 35.

20 **Q. To your knowledge, did the State of Wisconsin obtain any scenic easements after**  
21 **1963?**

22 A. Yes. A lesser number of scenic easements were obtained subsequent to 1963,  
23 predominantly in the late-1970s and early-1980s.

1 **Q. Do the WisDOT Easements overlap with Dairyland’s Q1 Easements?**

2 A. Along the Q1 Routes, 20 of the WisDOT Easements overlap Q1 Easements. On August  
3 26, 2011, Applicants filed copies of the WisDOT Easements, the existing Dairyland Q1  
4 Easements, and maps showing these easements boundaries along with the proposed  
5 transmission line alignments along GRR/STH 35. This August 26th filing is **Ex.-**  
6 **Applicants-Hillstrom-14. Ex.-Applicants-Hillstrom-15** contains additional easement  
7 documents that were either inadvertently omitted or are replacements for incomplete  
8 copies of the easement documents filed on August 26, 2011.

9 **Q. Did the state of Wisconsin acquire any of Dairyland’s Q1 Easement rights when it**  
10 **obtained the WisDOT Easements?**

11 A. When the State of Wisconsin acquired the WisDOT Easements, it did not condemn,  
12 purchase or otherwise acquire any of Dairyland’s existing Q1 easement rights.

13 **Q. Do the scenic easements obtained by WisDOT allow transmission structures like the**  
14 **ones proposed for this Project?**

15 A. According to published accounts of its scenic easement program, WisDOT initially  
16 adopted a standardized form for use in acquiring scenic easements. Based on the plain  
17 language of the WisDOT Easements acquired with this standardized form, Applicants  
18 believe that they do allow transmission structures like the ones proposed for this Project.  
19 The WisDOT Easements acquired with the standardized easement form expressly classify  
20 the installation of “electric ... lines ... for the purpose of transmitting ... power” as a  
21 “Permitted Use.” See **Ex.-Applicants-Hillstrom-14** (emphasis added).

1 **Q. Has WisDOT identified any scenic easements that do not contain this same language**  
2 **expressly permitting electric lines?**

3 A. Yes. At page 11 of its DEIS comments filed December 23, 2011, WisDOT identified  
4 eight scenic easements acquired in the late-1970s or early 1980s that do not contain this  
5 same language. WisDOT’s December 23, 2011 DEIS Comments (“WisDOT’s DEIS  
6 Comments”) are **Ex.-Applicants-Hillstrom-Ex. 16**. Copies of these eight scenic  
7 easements are **Ex.-Applicants-Hillstrom-Ex. 17**.

8 **Q. Do the Q1 Routes on GRR/STH 35 traverse any of the eight scenic easements**  
9 **identified at page 11 of WisDOT’s DEIS Comments?**

10 A. Only to a limited extent. Of the eight scenic easements identified at page 11 of  
11 WisDOT’s DEIS Comments, only two are crossed by the Q1 Routes on GRR/STH 35. A  
12 map showing the location of these eight scenic easements is **Ex.-Applicants-Hillstrom-**  
13 **18**. These include the first scenic easement listed on page 11 of WisDOT’s DEIS  
14 Comments and identified as document number 149949, found at Vol. 148, pages 522-524  
15 (1979) of the Buffalo County land records. **Ex.-Applicants-Hillstrom-Ex. 17** at pp. 1-3,  
16 **Ex.-Applicants-Hillstrom-18** at p. 2. The second is scenic easement is the fifth one  
17 listed on page 11 of WisDOT’s DEIS Comments. It is identified as document number  
18 224170, found at Vol. 251, pages 91-94 (1978) of the Trempealeau County land records.  
19 **Ex.-Applicants-Hillstrom-17** at pp. 11-14, **Ex.-Applicants-Hillstrom-18** at p. 3.  
20 Applicants do not have an explanation for why the other six scenic easements are  
21 identified at page 11 of WisDOT’s DEIS Comments as they do not appear to be relevant.

1 **Q. Does the first scenic easement (Doc. No. 149949) in Buffalo County preclude**  
2 **construction of the line as proposed for this Project?**

3 A. The Applicants do not believe that it does. The existing Dairyland Q1 Line currently  
4 crosses the scenic easement area. The proposed Project would be constructed on the  
5 same alignment as the preexisting Dairyland Q1 Easements, which was not acquired or  
6 restricted by the subsequent WisDOT Easements. Even assuming that the easement  
7 language WisDOT cites at page 11 of WisDOT’s DEIS Comments could be interpreted  
8 as being more restrictive than the language in WisDOT’s standardized form easements  
9 (which expressly permit electric lines), the different language is not relevant because the  
10 Applicants could construct, maintain, and operate the proposed Project within the  
11 preexisting Dairyland Q1 Easement. And I would also note that the proposed Project will  
12 only cross GRR/STH 35 at this point. There is no longitudinal installation proposed for  
13 this area. As WisDOT noted at page 3 of its November 22, 2011 letter to the Federal  
14 Highway Administration (“FHWA”), WisDOT agrees that highway crossings can be  
15 permitted notwithstanding any scenic considerations associated with GRR/STH 35 or the  
16 WisDOT Easements. A copy of WisDOT’s November 22, 2011 letter to FHWA is **Ex.-**  
17 **Applicants-Hillstrom-19**. Therefore, the WisDOT Easement in this area should not  
18 restrict the proposed GRR/STH 35 crossing. If necessary, one pole could be moved to  
19 the north side of the road to avoid this parcel.

20 **Q. Does the second scenic easement (Doc. No. 224170) in Trempealeau County preclude**  
21 **transmission structures like the ones proposed for this Project?**

22 A. It should not. Like the first example I just referenced, the existing Dairyland Q1 Line and  
23 Q1 Easements currently cross the scenic easement area. In addition, this particular

1 easement is split into four separate zones defined as Part I through Part IV. The scope of  
2 the scenic easement varies by zone. For example, WisDOT notes at page 11 of its DEIS  
3 comments that, it “acquired all owners’ rights to ‘utilize that land contained within Parts I  
4 and III for any other than agricultural purposes unless platted ... or single family  
5 residence...” But in Parts II and IV, the easement states that WisDOT only acquired the  
6 owners’ rights to erect billboard/outdoor advertising, dump or store trash, remove trees or  
7 shrubs, park portable living quarters or quarry subsurface materials. The existing  
8 Dairyland Q1 Line and the Q1 Routes do not cross Parts I and III of the scenic easement,  
9 but only cross Part II. **Ex.-Applicants-Hillstrom-18** at p. 3. The agricultural and  
10 residential use provision applicable in Parts I and III of the scenic easement are therefore  
11 not at issue.

12 **Q. Would the other restrictions concerning outdoor advertising, dumps, tree/shrub**  
13 **removal, portable living quarters or quarrying be impacted by the proposed**  
14 **Project?**

15 A. No. The construction and maintenance of the proposed transmission structures would not  
16 involve the placement of any outdoor advertising or portable living quarters and would  
17 not result in any tree/shrub removal or quarrying. The land has already been cleared and  
18 is currently in use as tillable crop land, so the Applicants do not anticipate any tree or  
19 shrub removal.

1 **Q. Are there other examples of scenic easements with similar language that WisDOT**  
2 **did not identify at page 11 of its DEIS Comments?**

3 A. Yes. Applicants are aware of two scenic easements crossed by the Q1 Routes which  
4 contain similar language to the easements identified at page 11 of WisDOT's DEIS  
5 Comments.

6 **Q. Where are those two scenic easements located?**

7 A. The two scenic easements Applicants are aware of are located in Trempealeau County.  
8 They include the parcels directly North and Northwest of the parcel burdened by Doc.  
9 No. 224170. The parcel directly to the North is burdened by a scenic easement identified  
10 as document number 224918, found at Vol. 252, pages 592-594 (1978) of the  
11 Trempealeau County land records. *See Ex.-Applicants-Hillstrom-20* at pp. 5-7. The  
12 parcel to the Northwest is burdened by a scenic easement identified as document number  
13 222491, found at Vol. 247, pages 192-195 (1978) of the Trempealeau County land  
14 records. *See Ex.-Applicants-Hillstrom-20* at pp. 1-4.

15 **Q. Do either of these two scenic easements prohibit construction of the Project?**

16 A. We do not believe so. These scenic easements are similar to the prior example of the  
17 parcel burdened by document number 149949 in Buffalo County. The existing Dairyland  
18 Q1 Line currently crosses the after-acquired WisDOT Easements. Like the first Buffalo  
19 County example, the proposed Project could be constructed, maintained and operated  
20 within the preexisting Dairyland Q1 Easements and the Project will also only cross  
21 GRR/STH 35 at this point. Therefore, the WisDOT Easements in this area should not  
22 restrict the proposed GRR/STH 35 crossing.

1 **Meetings with WisDOT**

2 **Q. Have Applicants met with WisDOT to discuss WisDOT's aesthetic concerns?**

3 A. Yes. We have met in person with WisDOT on at least 7 occasions, and have held  
4 numerous telephone conversations and other exchanges of information. We discussed the  
5 project and the GRR with members of the WI-MRPC at many of the Project's open  
6 houses, and took two WI-MRPC members on a driving tour of the Project area. The  
7 Applicants initiated communication with WisDOT in March 2008 to discuss appropriate  
8 agency coordination and contacts. Applicants met with WisDOT in September 2008 to  
9 introduce the Project and ask for WisDOT's feedback. The meeting focused on  
10 WisDOT's concerns about the Project's aesthetic impact and the presence of WisDOT's  
11 scenic easements along STH 35. Applicants met again with WisDOT in February 2009  
12 to discuss transmission line routes and WisDOT's STH 35 concerns.

13 **Q. Have Applicants prepared any visual simulations to show the potential aesthetic  
14 impacts of the Q1 Routes on the GRR/STH?**

15 A. Yes, Applicants prepared a draft Visual Assessment Memorandum and provided it to  
16 WisDOT in January 2010. The Visual Assessment Memorandum provided a series of  
17 photo simulations showing what the proposed Project would look like along STH 35.

18 **Q. Did Applicants subsequently revise this draft Visual Assessment Memorandum?**

19 A. The Applicants reviewed the Visual Assessment Memorandum with WisDOT and WI-  
20 MRPC staff on January 29, 2010. During that meeting, WisDOT requested four  
21 additional photo simulations and suggested a new alignment for a section of the route  
22 south of Cochrane, Wisconsin. The Applicants revised the draft Visual Assessment  
23 Memorandum and provided it to WisDOT and the WI-MRPC on April 21, 2010.



1 **Q. Did Applicants prepare any other visual assessments of Q1-Highway 35 Route?**

2 A. In response to requests from WisDOT for updated mapping, Applicants developed a  
3 “flyover” video of the Q1-Highway 35 Route. The video was presented at a meeting held  
4 on July 29, 2010. The video included overlays indicating locations of existing road right-  
5 of-way, scenic easements, existing transmission line rights of way and the location of the  
6 proposed transmission line route. In addition to presenting the video, the Applicants also  
7 presented the adjustments to the Q1-Highway 35 Route alignment that WisDOT and WI-  
8 MRPC had requested at the January 29, 2010 meeting. The most significant of these  
9 requested changes was to move the proposed 345 kV line from the existing Q1 Line  
10 alignment on the east side of the STH 35 to the west side for a 1.5 mile stretch south of  
11 Cochrane. This change would consolidate the proposed transmission line and two  
12 existing transmission lines on the west side of the road, away from the bluffs and off of  
13 any scenic easements.

14 **Q. Did Applicants have any other meetings with WisDOT prior to submitting the**  
15 **CPCN Application in January 2011?**

16 A. Another meeting was held on August 31, 2010 with WisDOT, WDNR, and WI-MRPC  
17 staff. At this meeting, WisDOT strongly encouraged the Applicants to avoid the  
18 GRR/STH 35 corridor and propose other routes instead. WisDOT also indicated that it  
19 would respond to the Applicants’ interpretation of scenic easements allowing  
20 transmission lines as a permitted use.

21 On September 8, 2010, another meeting was held with WisDOT to discuss the Q1-  
22 Highway 35 Route and to further refine the route to minimize visual impacts to  
23 GRR/STH 35. At this meeting, WisDOT suggested several route alignments and pole

1 placement changes as well as requesting certain poles weathering steel (brown) or others  
2 galvanized steel (gray). WisDOT also asked for several additional photo simulations and  
3 an update of all previous photo simulations to include the changes the Applicants have  
4 made based on WisDOT's requests. A revised and finalized Visual Assessment Memo  
5 was provided to WisDOT on November 18, 2010. This final Visual Assessment is  
6 Appendix O to the CPCN Application and is entitled a "Visual Assessment of the Great  
7 River Road." This assessment includes 23 photographic simulations to show the  
8 proposed structures along the Q1-Highway 35 Route.

9 **Q. Have Applicants prepared any assessments comparing the potential aesthetic**  
10 **impacts of different routes under consideration for the proposed Project?**

11 A. Yes. WisDOT requested that the Applicants search for a methodology that would allow  
12 Applicants to establish appraised values associated with aesthetic impacts such as a point  
13 value system. In response to this request, Applicants developed a memorandum  
14 comparing four different analysis methods. These methodologies were discussed during  
15 a meeting on June 8, 2011. A general consensus was developed at the meeting approving  
16 of Method #1, the Viewshed Method. Applicants then prepared a memorandum  
17 implementing the Viewshed Method to compare aesthetic impacts of the routes under  
18 consideration for this Project. A copy of this "Technical Memorandum: Comparison of  
19 Aesthetic Impacts for Wisconsin Routes" is **Ex.-Applicants-Hillstrom-21**.

1 *Aesthetic Mitigation Measures*

2 **Q. Can you summarize how Applicants propose to minimize aesthetic impacts to the**  
3 **GRR/STH 35 related to the Q1 Routes?**

4 A. In consultation with WisDOT and the WI-MRPC prior to submission of the CPCN  
5 Application, Applicants developed strategies to address aesthetic concerns along  
6 GRR/STH 35. Among those strategies are:

- 7 • The use of both weathering steel poles and galvanized steel poles along  
8 GRR/STH 35. WisDOT requested, and Applicants agreed, that different  
9 conditions along GRR/STH 35 would warrant a different finish and that  
10 Applicants would consult with WisDOT regarding the pole finishes if a Q1 route  
11 alternative were selected.
- 12 • Applicants further agreed that in certain areas, pole heights would be reduced to  
13 75 to 115 feet to address WisDOT's aesthetic concerns. These pole types could  
14 be deployed in additional areas.
- 15 • On the north end of the Q1 Routes, right-of-way width was reduced to 115 feet to  
16 retain a screen of trees.
- 17 • South of Cochrane, the Applicants proposed to route the 345 line away from  
18 GRR/STH 35 to a railroad corridor and to remove existing 161 and 69 kV lines  
19 currently adjacent to the highway. This results in removal of 4.1 miles of 161 kV  
20 line and 2.6 miles of 69 kV existing transmission line facilities currently located  
21 adjacent to STH 35.

- At WisDOT’s request, Applicants refined the alignments of the Q1 Routes to reduce the number of poles located in scenic easements and the length of scenic easements containing transmission facilities.
- Development and inclusion of a route (Arcadia Route) that avoids impacts to the GRR/STH 35.

**Q. Would the mitigation measures propose reduce the number of transmission line miles and poles within WisDOT’s scenic easement areas along the GRR/STH 35?**

A. Yes. The following table shows that both the number of miles of transmission line and the number of poles within WisDOT’s scenic easements would be reduced following after construction of the Project along the Q1 Routes.

	Miles of Transmission Line	Number of Poles
Existing Q1 Line within Scenic Easements	6.1	51
Post Construction of the Project along the Q1 Routes	2.7	15
Total Reduction	3.4	36

**Other Potential Impacts and Minimization Techniques**

**Q. Describe the Project’s potential impacts on forested areas and what Applicants will do to avoid or minimize these impacts.**

A. To accommodate transmission line construction, all woody vegetation would be cleared for the full right-of-way width, which would facilitate safe and efficient construction, operation and maintenance of the transmission line. After construction is complete, vegetation in the right-of-way would be cut at or slightly above the ground surface. Root

1 stocks would be left in place to regenerate after construction, except in areas where stump  
2 removal is necessary to facilitate the movement of construction vehicles along the right-  
3 of-way. Regrowth of tall-growing species under the transmission line would not be  
4 allowed. Where permission of the landowner has been obtained, stumps of tall-growing  
5 species would be treated with an herbicide to discourage regrowth. The disposition of  
6 trees of commercial or other value would be negotiated with the landowner prior to land  
7 clearing and included in the easement agreement.

8 **Q. Please describe the Project’s potential impacts on cultural resources and historic**  
9 **sites and what Applicants will do to avoid or minimize those impacts.**

10 A. The Mississippi Valley Archaeological Center (“MVAC”) at the University of  
11 Wisconsin-La Crosse has conducted an archival and literature review of the Project  
12 corridors for the Applicants. A report summarizing these findings was submitted to the  
13 Wisconsin State Historic Preservation Office (“SHPO”) in early 2011. The MVAC  
14 report identified 18 archaeological sites as potentially within or immediately adjacent to  
15 the proposed segments.

16 Avoidance of identified cultural resources is the preferred approach. If avoidance is not  
17 possible and construction is planned at an identified site, the SHPO may recommend  
18 Phase I testing of the identified site by a fully qualified archeologist to verify location and  
19 determine whether evidence of the site remains. Some level of additional mitigation,  
20 such as recordation, may be determined for an identified and eligible site prior to  
21 construction. Previously undiscovered sites uncovered during construction would likely  
22 follow a similar course of Phase I examination with appropriate mitigation determined in  
23 consultation with all parties.

1 **Q. Given your understanding of the Applicants' routing process, Applicants' proposed**  
2 **policies and mitigation techniques for the Project, and your experience with other**  
3 **transmission projects, in your opinion will the proposed Project have an undue**  
4 **adverse impact on other environmental values such as, but not limited to, ecological**  
5 **balance, public health and welfare, historic sites, geological formations, the**  
6 **aesthetics of land and water and recreational use?**

7 A. No. In my opinion, regardless of the route selected, the proposed Project will not have an  
8 undue adverse impact on other environmental values.

9 **WISDOT PERMITS**

10 **Q. What permitting authority does WisDOT have over utility facilities located within**  
11 **state highway right-of-way?**

12 A. Wisconsin Statute § 86.16 allows utilities to locate their facilities along and across  
13 highway right-of-way with the written consent of the highway jurisdiction. Wherever a  
14 transmission line needs to share right-of-way or cross a state or federal highway, a permit  
15 must be obtained from WisDOT. The Q1 Routes cross the GRR/STH 35 and parallel  
16 GRR/STH 35 but do not require the placement of a pole within highway right-of-way.

17 **Q. Has WisDOT commented on the permitability of the proposed crossings of the**  
18 **GRR/STH 35?**

19 A. Yes, WisDOT acknowledged in a November 22, 2011 letter to the FHWA that it could  
20 issue crossing permits for crossings of STH 35. However, the letter raised questions  
21 regarding whether WisDOT could issue utility permits for longitudinal transmission  
22 installations along STH 35. A copy of WisDOT's November 22, 2011 letter to FHWA is  
23 **Ex.-Applicants-Hillstrom-19**. While Applicants have been meeting and communicating  
24 with WisDOT since March 2008 regarding this Project, WisDOT's November 22nd letter

1 was the first time that Applicants had heard that a route along STH 35 may not be  
2 permittable by WisDOT.

3 **Q. Did Applicants respond to WisDOT’s statements about the permissibility of the**  
4 **routes along STH 35?**

5 A. On December 9, 2011, Applicants provided a response to WisDOT’s November 22, 2011  
6 letter to FHWA stating that no poles would be located in STH 35 right-of-way. A copy  
7 of Applicants’ December 9, 2011 letter is **Ex.-Applicants-Hillstrom-22**. Robert Fasick,  
8 State Right-of-Way Accommodation and Permits Engineer for WisDOT, subsequently  
9 advised Applicants that WisDOT would require a utility permit for longitudinal  
10 installations wherever the transmission line right-of-way overlaps highway right-of-way.

11 **Q. Are there portions of the Q1-Highway 35 and Q1-Galesville routes that overlap STH**  
12 **35 right-of-way?**

13 A. Applicants reviewed the Q1-Highway 35 and Q1-Galesville routes and identified three  
14 segments where transmission line right-of-way along the proposed longitudinal  
15 alignments would overlap STH 35 right-of-way located in Segments 2A/2B, 2C/2D, and  
16 8A/8B/8C.

17 **Q. Have Applicants made any adjustments to these three segments to avoid**  
18 **overlapping STH 35 right-of-way?**

19 A. Yes, Applicants determined that minor adjustments could be made so that no right-of-  
20 way overlap would occur, Highway 35 Adjustment. The Highway 35 Adjustment could  
21 be used in the event the PSCW approves the Q1-Highway 35 Route or the Q1-Galesville  
22 Route and if WisDOT determines that it could not issue a utility permit for longitudinal  
23 installations along STH 35. Applicants believe that no longitudinal utility permit for

1           STH 35 would be required if the 35 Adjustment were implemented. Applicants filed  
2           supplemental DEIS comments on December 23, 2011 describing the 35 Adjustment and  
3           providing an impacts table for the 35 Adjustment. Applicants' supplemental DEIS  
4           comments are **Ex.-Applicants-Hillstrom-23**. An updated impacts table to correct  
5           addition errors is attached as **Ex.-Applicants-Hillstrom-24**.

6   **Q.   How do the impacts of the 35 Adjustment compare to the original alignments for the**  
7   **Q1-Highway 35 and Q1-Galesville routes?**

8   A.   Based on Applicants' review, the 35 Adjustment would have impacts very similar to  
9           those of the original Q1-Highway 35 and Q1-Galesville alignments on the STH 35  
10          segments. The 35 Adjustment would result in one (net) less pole in wetlands: two poles  
11          would be removed in the northern segments (Segments 2A3R/2BR/2A4R), one pole  
12          would be added on the new 8AR/9R segment. The 35 Adjustment would decrease the  
13          proposed matting/temporary disturbance within wetland by approximately 1,800 to 1,900  
14          feet within the 2A3R/2BR/2A4R segments.

15   **Q.   Have Applicants analyzed any other route alignment alternatives in response to**  
16   **WisDOT's concerns?**

17   A.   Applicants have also analyzed a short realignment that would allow the Q1-Highway 35  
18          Route to utilize the same north/south alignment west of U.S. Highway 53 through the  
19          Town of Holland. The three-span segment between Segment 9 and Segment 18g which  
20          joins the two routes across the U.S. Highway 53 south of the U.S. Highway 53/ STH 35  
21          interchange, the Holland U.S .53 Adjustment. A map of the Holland US 53 Adjustment  
22          for the Q1-Highway 35 Route and impacts table are attached as **Ex.-Applicants-**  
23          **Hillstrom-25** and **Ex.-Applicants-Hillstrom-26**.



1 **ENVIRONMENTAL PERMITS**

2 **Q. Besides the PSCW approval the Applicants are seeking in this proceeding, what**  
3 **WDNR permits will be required for the Project?**

4 A. Applicants anticipate the following WDNR permits will be required for the Project and  
5 have been applied for in the Utility Permit Application:

- 6 • Chapter 30 Permit to place temporary bridges in or adjacent to navigable waters,  
7 pursuant to Wis. Stat. § 30.123 and Wis. Admin. Code ch. NR 320;
- 8 • Wetland Water Quality Certification to discharge fill in wetlands, pursuant to  
9 Wis. Stat. § 28 1.36 and Wis. Admin Code chs. NR 103 and NR 299;
- 10 • Chapter 30 Permit to place miscellaneous structures within navigable waterways,  
11 pursuant to Wis. Stat. § 30.12 and Wis. Admin. Code ch. NR 329;
- 12 • Chapter 30 Permit for grading on the bank of a navigable waterway, pursuant to  
13 Wis. Stat. § 30.19 and Wis. Admin. Code ch. NR 341;
- 14 • WPDES Stormwater Discharge Permit pursuant to Wis. Stat. ch. 283 and Wis.  
15 Admin. Code ch. NR 216;
- 16 • Incidental take authorization pursuant to Wis. Stat. § 29.604 if the need for that  
17 permit is identified by WDNR;
- 18 • Any other applicable required permit, if the need for that permit is identified by  
19 the WDNR.

20 **Q. When do Applicants expect to obtain these other WDNR approvals?**

21 A. Applicants expect to receive the WDNR permits no more than 30 days after the PSCW  
22 order issuing a CPCN for this Project.

1 **ROUTE FLEXIBILITY**

2 **Q. Do the structure locations and route centerline shown in the CPCN Application**  
3 **accurately reflect where the actual structures and transmission lines will be located?**

4 A. For the most part, however, minor adjustments to the approved centerline and structure  
5 locations are sometimes needed to address unpredictable problems in the field or to  
6 resolve legitimate landowner concerns. Applicants request that the PSCW grant them the  
7 flexibility to make minor adjustments to the proposed route centerline for the protection  
8 of social, cultural, or environmental resources similar to the flexibility granted by the  
9 PSCW in other CPCN dockets. See Docket No. 137-CE-147. Applicants also request  
10 the flexibility to make adjustments that affect new landowners if the newly affected  
11 landowners consent to the change. Applicants understand that these minor alignment  
12 adjustments from the approved centerline may not affect resources or cause impacts not  
13 discussed in the EIS. In addition, for each proposed minor centerline adjustment  
14 Applicants will submit, for PSCW Staff review and approval, a letter describing the  
15 nature of the requested change, the reason for it, the incremental cost and environmental  
16 impact differences based on the approved route, and Applicants' communications with  
17 the affected landowners.

18 **PUBLIC OUTREACH**

19 **Q. Generally describe how Applicants conducted public outreach for the 345 kV**  
20 **Project prior to submitting the CPCN Application.**

21 A. The Applicants conducted a more than three-year public participation process to provide  
22 stakeholders the opportunity to discuss 345 kV Project need, goals, routing criteria and  
23 environmental concerns. **Ex.-Applicants-Hillstrom-27** summarizes Applicants public  
24 outreach efforts and communications for the Hampton – Rochester – La Crosse 345 kV

1 Project. The public participation process prior to filing the CPCN Application included  
2 three rounds of CapX2020-hosted open houses, Minnesota Department of Commerce  
3 public meetings, and MPUC public hearings on the CON Application, a round of RUS  
4 public scoping meetings, a round of Minnesota EIS public scoping meetings, numerous  
5 presentations to local governments, and extensive media coverage.

- 6 • A round of public open houses held in six locations in southeast Minnesota in  
7 September 2007 in conjunction with the Minnesota CON process.
- 8 • A second round of public open houses in May 2008 in five locations, including  
9 Galesville, Wisconsin to provide information to the public, answer questions, and  
10 gather input on the siting process and newly developed macro-corridors.
- 11 • A third round of public open houses in December 2008. New route options  
12 within the previously identified macro-corridors were presented to attendees in  
13 seven locations within the study area, including Galesville, Wisconsin.
- 14 • A fourth round of public open houses were held in Wisconsin in May 2009. Open  
15 houses were held in Galesville, Arcadia, and Fountain City to provide information  
16 to the public, answer questions and discuss the regulatory process.
- 17 • An additional round of public meetings in June 2009 at five locations, including  
18 Galesville and Arcadia, to conduct RUS public scoping meetings. New route  
19 centerline options within the previously identified macro-corridors were presented  
20 to attendees in six locations within the 345 kV Project area.
- 21 • One round of route permit scoping meetings in May 2010 at three locations to  
22 conduct public scoping for the Minnesota EIS.

- A summary of the dates and locations of these meetings is provided in Table 2.2-4 of the CPCN Application.

**Q. What was the format of the open houses hosted by Applicants?**

A. The public open house format included large informational displays that provided 345 kV Project purpose and need, permitting process information, detailed aerial maps with 345 kV Project corridors or routes, handouts, and comment forms. Project representatives staffed the meetings, answered questions and engaged the public in discussion. Aerial maps were used to show greater routing area detail and to collect site-specific public input. The third and fourth rounds of public open houses included a GIS station that allowed landowners to obtain a detailed map of their property in relation to the route options. Public scoping meetings for the Minnesota EIS were also conducted in the open house format and included two GIS stations. Public open houses solicited information about the types of land use in the 345 kV Project area, environmental considerations, routing suggestions and the criteria that should be used in developing proposed routes. Comments were recorded on the detailed aerial maps and comment forms, while notes were taken of conversations (with stakeholders' approval). The 345 kV Project team also provided explanations on various aspects of the proposal and the public participation process.

A similar format was used for the RUS public scoping meetings with presentation of the full suite of 345 kV Project materials. An RUS representative attended and provided information on the National Environmental Policy Act and Section 106 processes.

1 **Q. Approximately how many people submitted comment forms at these open houses?**

2 A. Approximately 339 comment forms were received throughout the three rounds of public  
3 open houses. Approximately 540 people signed in at the RUS public scoping meetings,  
4 and 337 comment forms, letters or emails were received during the formal scoping  
5 comment period. Approximately 350 people attended the Minnesota public scoping  
6 meetings.

7 **Q. In addition to the open houses, did Applicants host any other public meetings  
8 related to the Project?**

9 A. Applicants also hosted routing work group meetings in March and May 2008 at five  
10 different locations specified in Table 2.2-5 of the CPCN Application.

11 **Q. Who was invited to attend these routing group meetings?**

12 A. Federal, state, regional, county and city officials and representatives as well as members  
13 of the general public who requested to be included, were invited to participate.

14 Participants were asked to provide comments, data and input representing their  
15 organizations or communities. Some participants were appointed or selected by their  
16 respective agency. Members of the general public were invited to participate using the  
17 December 2007 CapX2020 update newsletter. Interested individuals signed up to  
18 participate at the December 2007 CON scoping meetings.

19 **Q. What was the format of these routing group meetings?**

20 A. The workshop format featured small group discussions on the importance and  
21 implications of the 345 kV Project routing criteria. The routing work group meetings  
22 included several different activities. The CapX2020 representatives gave a presentation  
23 describing the proposed transmission facilities, siting approach, criteria, resources,

1 opportunities and constraints, and comparative analysis. Small group discussions focused  
2 on the siting criteria. Map workshops focused on the specific work group's section of the  
3 345 kV Project area. The meetings collected input and routing suggestions and identified  
4 challenges for routing in the area.

5 **Q. Did the PSCW also conduct public meetings related to the 345 kV Project after the**  
6 **CPCN Application was filed?**

7 A. Yes, the PSCW conducted four EIS scoping meetings that were open to the public.  
8 These scoping meetings were held on July 14, 2011 in Cochrane, Wisconsin and July 20,  
9 2011 in Centerville, Wisconsin.

10 **Q. What other means of communicating with the public about the 345 kV Project did**  
11 **Applicants use?**

12 A. Direct mail was used to notify landowners and other stakeholders of open house events,  
13 public meetings and hearings. Applicants invited the public to open houses and public  
14 hearings via newspaper ads in local papers. Applicants also mailed informational  
15 newsletters to all postal patrons within the 345 kV Project area to provide 345 kV Project  
16 information and to inform the public about upcoming open houses. Additionally,  
17 between June 2006 when the CapX2020 project was announced and January 2011 when  
18 the CPCN Application was filed, the Applicants provided about 40 presentations and  
19 updates to local officials, including county board and city council meetings. Applicants  
20 also communicated with the local media via news releases, interviews, and 345 kV  
21 Project updates. Media coverage of the Hampton – Rochester – La Crosse 345 kV  
22 Project during that period generated approximately 260 news stories in the 345 kV  
23 Project area.

1 The public has also been kept informed about the Hampton – Rochester – La Crosse 345  
2 kV Project through the CapX2020 website at: <http://capx2020.com>. The user friendly  
3 website contains tools to inform stakeholders and provides contact information for 345  
4 kV Project leads so stakeholders can submit questions, suggestions, and concerns. A  
5 member of the 345 kV Project team typically responds to emails and comments within a  
6 day. Updated fact sheets about the routing process, permitting and public processes, and  
7 environmental issues are provided on the website for wide range accessibility.

8 Additionally, the website includes all Minnesota, Wisconsin, and Federal regulatory  
9 documents associated with the Hampton – Rochester – La Crosse 345 kV Project as well  
10 as detailed route segment maps that are continually updated.

11 **Q. How did Applicants document public input regarding the 345 kV Project?**

12 A. Comments received during each round of public open houses and routing work group  
13 meetings were categorized and summarized into several common themes. A summary of  
14 these common themes is provided on page 2-101 of the CPCN Application.

15 **Q. Did Applicants take into account the feedback that it received from its outreach  
16 efforts in determining the routes it proposes?**

17 A. Yes. During agency consultation and the public participation process, numerous route  
18 segments were suggested and considered. Some of these recommended options were  
19 minor variations of the Applicants' proposed route segments, and others were major  
20 revisions of proposed route segments. Some of these recommended route segments were  
21 incorporated into the routes evaluated in this document, and some were eliminated.

22 Three of the more significant options incorporated into the route analysis for the 345 kV  
23 transmission line include the Arcadia, Bluff, and Blair routes.

1 **Q. Can you describe the public outreach conducted by Applicants following submission**  
2 **of the CPCN Application?**

3 A. Since the filing of the CPCN Application, Applicants have continued to continued to  
4 conduct public outreach efforts. These efforts include:

- 5 • Issuing a press release on the filing of the CPCN Application on January 5, 2011  
6 to media outlets in the 345 kV Project area;
- 7 • Approximately 115 Project-related news stories were generated during 2011;
- 8 • CapX2020 345 kV Project team made 11 presentations to local officials and  
9 numerous presentations/consultations to state agencies;
- 10 • Project team briefed legislative staff representing five Wisconsin state legislators  
11 whose districts include the 345 kV Project area as well as the governor's office;
- 12 • Distributed two CapX Quarterly newsletters that updated landowners, local, state  
13 and federal officials, as well as the media on the CPCN process; and
- 14 • The CPCN application, the DEIS, 345 kV Project route maps and other  
15 supporting documents were posted and continually updated on the CapX2020  
16 website.

17 **CONCLUSION**

18 **Q. Does this complete your direct testimony?**

19 A. Yes.

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