AN OFFICIAL FILING
BEFORE THE
PUBLIC SERVICE COMMISSION OF WISCONSIN

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

NORTHERN STATES POWER COMPANY, A WISCONSIN CORPORATION, DAIRYLAND POWER COOPERATIVE AND WPPI ENERGY'S INITIAL BRIEF IN SUPPORT OF THEIR JOINT APPLICATION

INTRODUCTION

After a three-day contested case hearing and four public hearing sessions, the Public Service Commission of Wisconsin ("PSC") has before it a robust record that demonstrates the need for the Hampton-Rochester-La Crosse 345 kV project ("Project") to serve the La Crosse, Wisconsin area and the region and provides multiple viable routes for construction.

The Project will create a vital additional 345 kV link between Minnesota and Wisconsin across the MWEX interface. This connection will increase transfer capability between the states to meet Wisconsin's existing and future power needs, including renewable generation requirements, and facilitate additional generation, wholesale competition, and more efficient delivery of energy.

The Project will also provide 750 MW of load serving capability in the Winona, Minnesota and La Crosse areas.[1] While the Final Environmental Impact Statement questioned the La Crosse community need for the Project by indicating that French Island oil combustion generation could be used for transmission support, at hearing, this option was eliminated.[2] At the end of hearing, all engineering witnesses, including PSC staff and the Citizens Utility Board ("CUB") consultant Richard Hahn, agreed that the La Crosse area has an existing transmission deficit, that French Island is not a reasonable alternative, and new transmission facilities must be constructed to ensure continued reliable service to this community.[3] The Project will serve the La Crosse area beyond 2040 by providing a strong 345 kV tie directly into the load center at Briggs Road Substation.[4]

For construction, three complete route alternatives between the Mississippi River crossing at the city of Alma and a new Briggs Road Substation near Holmen were analyzed as well as three route segment alternatives. In combination, the record contains eight distinct route alternatives.

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[1] Ex.-Applicants-Hillstrom-1 at Appendix E at 37; Ex.-Applicants-King-2 at 3.
[2] Ex.-PSC-Rineer-1 at XVII-XVIII; Sirohi Surrebuttal at 2:18-24.
[3] NoCapX2020 and CETF generally oppose the need for the Project, but offered no witness to support this position. Applicants will respond to these two intervenors as appropriate in the Applicants' reply brief.
[4] *See* Ex-Applicants-King-2 at 36.

When the PSC's siting criteria is applied, the Q1-Highway 35 alternative is the route that causes the least impact to people and the environment because it is the shortest, most direct route, utilizes the greatest percent of existing corridors consistent with the siting priorities laws, Wis. Stat. §§1.12(6) and 196.025(1m), and is the least costly.[5] In addition, the Q1-Highway 35 Route would be constructed as a double circuit line with the Q1 161 kV transmission line ("Q1 Line") between Alma and the Briggs Road Substation for its entire length, thus consolidating utility corridors and avoiding up to $40 million standalone rebuild costs for the Q1 Line.[6]

The Wisconsin Department of Transportation ("WisDOT") and the Wisconsin Department of Natural Resources ("DNR") have raised "permittability" concerns regarding the Q1-Highway 35 Route. The record indicates that the positions of these agencies are not based on systematic and scientific analysis of the overall routes being considered in this docket. In contrast, the Department of Agriculture and Consumer Protection ("DATCP"), in its March 5, 2012 comment letter, articulated a thoughtful analysis of specific comparative environmental impacts of the routes in their entirety that supports its conclusion that the Q1-Highway 35 Route or the Q1-Galesville Route[7] should be selected over the Arcadia Route options.[8]

Applicants recognize that these differing opinions of agencies present special considerations for the PSC. Applicants believe that all eight route alternatives meet the state siting criteria and are constructible and permittable. Applicants are prepared to implement whatever decision the PSC makes and are hopeful that, should the PSC select one of the Q1 routes, the concerns of WisDOT and DNR could be addressed such that the agencies would issue the necessary permits.

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[5] Hillstrom Direct at 13:4-8; Ex.-PSC-Rineer-1 at 280, Table 12.5-1.
[6] Ex.-PSC-Rineer-1 at 278-79; Thompson (Applicants) Direct at 7:4-5; Ex.-Applicants-Stevenson- 6.
[7] The original Q1 Route that follows the Q1 Line, is not under consideration in this docket because the United States Fish and Wildlife Service stated it will not authorize construction across its land in the Black River Bottoms, Segment 8. Hillstrom Direct at 20:19-21:5; Ex.-PSC-Rineer-1 at XXV and XXVII.
[8] DATCP March 5, 2012 Letter at 2-4 (PSC REF#: 160995).

Based on the full record and the arguments in this brief, Northern States Power Company, a Wisconsin corporation, on behalf of itself and its co-applicants, WPPI Energy ("WPPI") and Dairyland Power Cooperative ("DPC"), respectfully requests that the PSC grant a Certificate of Public Convenience and Necessity ("CPCN") for the Wisconsin portion of the Project.

ANALYSIS

I. THE PROPOSED PROJECT SATISFIES THE REASONABLE NEEDS OF THE REGION FOR AN ADEQUATE SUPPLY OF ELECTRICAL ENERGY AND WILL PROVIDE REGIONAL RELIABILITY AND OTHER REGIONAL BENEFITS TO WHOLESALE AND RETAIL CUSTOMERS IN WISCONSIN AND THROUGHOUT MISO

The Project will provide a critical 345 kV connection across the Wisconsin and Minnesota ("MWEX") interface that will improve regional reliability and efficiency, reduce wholesale prices throughout the region, and facilitate acquisition of lower cost renewable resources by Wisconsin utilities. These benefits, coupled with the local reliability enhancements for the La Crosse area detailed in the next section, fully support the issuance of a CPCN for the Project.

A. REGIONAL RELIABILITY AND EFFICIENCY

The Project will provide operational flexibility and reliability enhancements by enabling additional power transfers.[9] The Project will also address regional deficiencies identified by MISO. The regional reliability need was confirmed in MISO's exhaustive stakeholder planning process after which MISO approved the Project with a Briggs Road termination as a baseline reliability project in the MTEP08.[10] As part of this proceeding, MISO updated its analysis and concluded that if the Project is not constructed, there will be substantial overloading of facilities in Wisconsin, Iowa, and Minnesota. MISO Senior Director of Expansion Planning Jeff Webb testified that absent the Project and based on projected 2021 system loads, "23 different transmission facilities would be

[9] Ex.-Applicants-King-2 at 27-28 and 58.
[10] Webb Tr. 181:9-182:3 (clarifying: "We have always designated the project in our listings at North La Crosse and have understood that to be a substation at North La Crosse or right about there, which I believe now is called the Briggs Road Substation."). Webb Tr. 182:4-184:9.

overloaded or loaded to within a few percent of emergency capability for any of 17 single contingency conditions or 24 events involving forced outages during the prior outage of another facility."[11] The Project will prevent these overloading conditions.[12]

The Project also adds a 345 kV line to the regional electrical system that will reduce losses on the electrical system by 10 MW.[13] This represents a present value of capacity and energy cost savings of approximately $45 million.[14]

B. TRANSFER CAPABILITY NEED AND BENEFITS

The MWEX interface is constrained, which means that the ability to transfer power between Minnesota and Wisconsin is limited.[15] When delivery options are constrained, overall prices to load are higher than they would be in absence of congestion, as evidenced by the fact that local marginal prices are generally higher in the Eastern MISO region than the Western region.[16]

The Project will provide significant additional transfer capability across the MWEX in the near term and even more longer term when the 345 kV system is extended in Wisconsin. This will provide regional benefits that will be shared within the MISO market, including Wisconsin customers.[17] Even CUB, which opposes the Project's size based solely on local needs, agrees the Project would provide benefits of increased transfer capability and reduced losses.[18] Thermal analyses show that the Project itself will increase transfer capability by approximately 800 MW.[19] When the 345 kV system is extended to the east as anticipated, transfer capability will rise to 1200

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[11] Webb Direct at 19:9-11; Webb Tr. 179:9-17.
[12] Webb Direct at 15-16.
[13] Ex.-Applicants-Hillstrom-1 at 2-50; Hahn accepted the Applicants' position that the Project would reduce losses. Hahn Tr. 35:7-9.
[14] Ex.-Applicants-King-2 at 50; Beuning Tr. 123:22-124:1.
[15] Ex.-Applicants-King-2 at 27.
[16] Hahn Tr. 84:15-85:6.
[17] Ex.-PSC-Neumeyer-5 at 6.
[18] Hahn Tr. 35:7-9.
[19] Ex.-Applicants-King-2 at 57.

MW.[20] This new capacity will reduce energy production costs and provide opportunities for Wisconsin utilities to obtain generation resources from points west, including wind generated resources.[21]

The Applicants' production cost analysis (PROMOD) shows that the Project would lower production costs in the MISO region. The PROMOD software simulates market dispatch in a manner comparable to the actual security-constrained economic dispatch employed by MISO.[22] Using MISO's regional PROMOD models (for the year 2021), Applicants compared the Project with a 161 kV alternative. Existing generation levels were used for the lower voltage alternative and higher levels of wind were used for the 345 kV Project in recognition that the Project, with a future 345 kV connection to the east, would provide 1200 MW of additional transfer capability.[23] The output from the PROMOD cases provided estimated differences in annual MISO production cost in millions of dollars and tons of CO_2 produced and confirmed the superior performance of a 345 kV solution.[24] Over the 20 to 40 years beginning in 2019 (the first full year following anticipated in service date of the La Crosse-Madison 345 kV upgrades), the Project would provide approximately $354 to $445 million in present value benefits relative to 161 kV alternatives.[25]

This new access will enable Wisconsin utilities the opportunity to purchase generation from the west, including wind generated power from Minnesota and the Dakotas which has higher wind capacity factor than wind generation in Wisconsin.[26] As explained by WPPI's Tim Noeldner, whose testimony was not challenged:

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[20] *Id*.
[21] As Hahn noted: "I do not disagree with that the proposed project will enhance deliverability of remote generation into Wisconsin and mitigate congestion costs." Hahn Surrebuttal at 8:8-11.
[22] Beuning Direct at 7:4-5.
[23] Beuning Direct at 9:14-19.
[24] Beuning Direct at 10:11-17.
[25] Beuning Direct at 10:11-16.
[26] Ex.-Applicants-King-2 at 4.

> WPPI relies upon remote generation to meet member utilities' electrical capacity and energy requirements. Absent transmission transfer capability, use of remote generation for this purpose would not be possible. Power transfer capability has provided WPPI with lower-priced resources over the years in two ways: 1) The direct cost of remote purchases from (or ownership of) Minnesota and Illinois generators is lower on a delivered basis than that of other options available at the time these purchases were made, and 2) Having the ability to reach remote resources has given WPPI a wider range of opportunities when considering the economics of resource options inside and outside of Wisconsin. Thus, the availability of power transfer capability (from Minnesota and points west as well as from Illinois) has reduced the cost of electricity for WPPI's members and their customers. The anticipated near-term and long-term power transfer capability improvements provided by the Project are needed in the future to provide similar benefits. Transfer capability also enables WPPI to meet its renewable energy requirements. WPPI currently purchases 80 MW (nameplate) under long term power purchase agreements from wind farms located west of Wisconsin and owns 1.8 MW (nameplate) of a wind farm located near Worthington, Minnesota.[27]

The value of this access for wind resources can and has been quantified. Noeldner testified to a transfer capability value ranging from $130 to $250 ($ per kW of power transfer capability) based on the differential in expected capacity factor of wind generation located in Minnesota versus that of wind generation located in Wisconsin.[28]

The increased transfer capability will also positively impact wholesale prices.[29] As PSC staff Senior Financial Analyst Julie Urban noted: "A transmission line that expands transfer capability will facilitate commerce and promote, not adversely affect, competition in electric markets in Wisconsin."[30] If the Project does not proceed but other planned 345 kV facilities are constructed as anticipated in the MISO planning process, congestion could worsen which would put upward

[27] Noeldner Direct at 4:23-5:16.
[28] Noeldner Direct at 9:3-10. Applicants note that the wind capacity factor and production cost savings benefits are not intended to be additive.
[29] Urban Direct at 8:3-18.
[30] Urban Direct at 8:5-6..

pressure on energy prices.[31] In particular, there are two MISO Multi-Value Projects ("MVP") that would likely increase congestion in the absence of the Project: the Brookings County-Hampton 345 kV Project for which construction activities are underway, and the La Crosse-Madison 345 kV Project which was approved in MTEP11 but has not commenced the state permitting process.[32] As Hahn observed, congestion would be "exacerbated" if other MVP projects were constructed but the "dots" were not connected.[33]

II. THE PROPOSED PROJECT SATISFIES THE REASONABLE NEEDS OF THE PUBLIC FOR AN ADEQUATE SUPPLY OF ELECTRICAL ENERGY IN THE LA CROSSE AREA

In addition to regional benefits, the Project will provide a long-term solution to load serving issues in the La Crosse/Winona and Rochester, Minnesota areas to ensure the adequate and reliable supply of energy. No witness disputed the existence of transmission deficits in these communities, nor did any witness challenge the adequacy of the Project to meet the load serving needs.

In La Crosse, Applicants identified a critical load level of 430 MW.[34] Above 430 MW, the area experiences low voltages if the Genoa-3 generator is off-line and the Alma – Marshland 161 kV transmission line is disconnected (an "N-2" contingency).[35] When load on the system is at or above 430 MW, the critical contingency will cause unacceptable low voltages in the La Crosse area and as load exceeds 500 MW, voltage collapse throughout the wider region may occur.[36] Because load above 430 MW cannot be reliably served under this N-2 contingency, to comply with North American Electric Reliability Corporation ("NERC") standards, load would have to be interrupted after the first outage to put the system in a condition that it can withstand the next contingency.[37]

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[31] Beuning Direct at 4:17-19; King Direct at 23:8-9.
[32] *See* Ex-Applicants-Beuning-2 at 2.
[33] Hahn Tr. at 85:15-20.
[34] Ex.-Applicants-King-2 at 3 and 35.
[35] King Direct at 10:10-13.
[36] King Direct at 10:8-22; Ex.-Applicants-King-4.
[37] King Direct at 10:18-21.

This mitigation action is required under NERC reliability standard TPL-003.[38]

Load first surpassed 430 MW in 2003 and with the exception of 2004, exceeded this level every year since.[39] On August 12, 2010, the coincident flows on the transmission lines hit 450 MW.[40] PSC staff Generation and Transmission Engineer Udaivir Sirohi, Webb, Hahn, and Applicants Senior Transmission Planning Engineer Amanda King, the only four engineering witnesses at hearing who testified regarding local reliability issues, agreed that there is an existing NERC N-2 condition in the La Crosse area that must be addressed with new facilities.[41] Sirohi and Hahn specifically endorsed the critical 430 MW level.[42]

Webb also confirmed the immediate need for facilities to serve the La Crosse area. He detailed how MISO approved the Project in the MTEP08 process through an extensive stakeholder process as a baseline reliability project and conducted its own analysis to confirm the need.[43] For this proceeding, MISO updated its analysis based on a load level of 510 MW–the load level included in the MTEP11 model of peak load in the area in the year 2016.[44] MISO again concluded that the Project is necessary for adequate system loading and voltage levels in the La Crosse area.[45] Webb testified that MISO found wider area problems in addition to the critical N-2 condition Applicants identified:

> The two line outage conditions show the overall area weakness. For these conditions voltages are severely low over a wide area. Here again with peak load voltages as low as 80% at some locations, we expect difficulties in performing routine line maintenance without voltages falling below the acceptable 90% level for the next contingency. The widespread nature and low level of voltage following the two line outage condition indicates that there will be

[38] King Direct at 10:21-22.
[39] Urban Direct at 7:11-13.
[40] Ex.-Applicants-King-2 at 31.
[41] Sirohi Direct at 3:21-22; Webb Direct at 12:15-17; Hahn Tr. 17:2-5.
[42] Sirohi Direct at 3:19-23; Hahn Tr. 17:2-5.
[43] Webb Direct at 5:16-6:6; 12:7-9.
[44] Webb Direct at 12:26-31.
[45] Webb Direct at 13:1-8.

> risk of voltage instability unless a new strong source is provided in the area. Voltage instability can cause rapid progression of declining voltages throughout a wide area resulting in total collapse of voltages and extensive loss of load. Such events in addition to being a violation of NERC planning standards can cause damage to utility and customer equipment and jeopardize public safety. The seriousness of such events, including potential harm to public health and safety, as well as economic impact on businesses and the community, cannot be overstated. The proposed project is very effective in mitigating all of these issues.[46]

Applicants recognize that while all parties who commented on the issue of growth agree that demand will increase, there was debate how much the load in the La Crosse area would grow over time. As King testified at hearing, Applicants prepared their estimated growth rates of 1.46 for 2011 to 2020 and 1.24% after 2020 based on distribution planners' intimate knowledge of the customers each substation serves and anticipated growth in the La Crosse/Winona area.[47] The two witnesses who offered different growth rates did not account for local considerations. Rather, they relied upon regional trends. Hahn opined that the growth rate should be 1% "given the historic load growth in the region and the projections for load growth in the wider region."[48] Urban testified to a range of potential growth rate 0.78%, based on the MISO-wide "Module E" forecast, to 1.28%.[49] Applicants agree with Webb's testimony that the Module E forecasts are not appropriately applied to local areas but are instead intended to develop resource forecasts for comparative analyses of congestion and production costs.[50] Based on their specialized knowledge of the area, Applicants believe their growth rates for the La Crosse area from 2011-2020 are the most reasonable for transmission planning purposes.[51]

Regardless of the ultimate actual growth rate, there is no dispute about the need to build new

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[46] Webb Direct at 15:10-21.
[47] King Tr. 145:19-146:7; Ex-Applicants-King-2 at 36.
[48] Hahn Tr. 25:7-9; Hahn Direct 13:20-24.
[49] Urban Tr. 647:17-19; Urban Direct at 6:7-11.
[50] Webb Rebuttal at 4:14-5:12.
[51] King Tr. 145:19-146:12.

facilities to serve the growing load in the La Crosse area. Nor is there any debate that the Project will provide 750 MW of load serving capability which will serve the area for several decades.[52]

III. PROJECT IS THE BEST ALTERNATIVE IN THE RECORD

At hearing, there were only three alternatives advocated for by other engineering witnesses. No party put forth an alternative that could meet both the local load serving and regional needs that the Project satisfies. Indeed, the proponents of alternatives acknowledge that their analysis was limited to meeting the local need only, disregarding regional considerations.[53] As such, these are not reasonable alternatives for the Project. The PSC should find that the Project is the superior alternative in the record that can meet all identified needs.

Two witnesses, Sirohi and Hahn, supported community service alternatives to the Project. The narrow scope of Sirohi's analysis is expressly noted in his direct testimony: "I would emphasize that my analysis is focused only on Local Area reliability needs …."[54] Sirohi initially recommended using French Island generation for transmission system support—a no build option.[55] Sirohi withdrew this recommendation in his Surrebuttal Testimony based on Webb's rebuttal testimony: "Mr. Webb provides the clinching evidence that the operation of French Island Unit 4 does not resolve all of the transmission system violations" caused by the critical N-2 event.[56]

Sirohi's final recommendation was for the Project or the Reconductor Option, depending on the assumed growth rate.[57] Sirohi testified that the Project is the least cost option for meeting local load serving needs for 20 years if a growth rate at or above 1.28% growth rate is assumed.[58] If a lower growth rate is assumed, the Reconductor Alternative is Sirohi's recommended option.

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[52] *See* Neumeyer Direct at 2:9-10.
[53] Hahn Tr. 49:17-22; Sirohi Direct at 10:1-4.
[54] Sirohi Direct at 10:1-4.
[55] Sirohi Direct at 7:16-20.
[56] Sirohi Surrebuttal at 2:2-14.
[57] Sirohi Sur-Surrebuttal at 2:6-9.
[58] Sirohi Surrebuttal at 7:7-8:6.

Applicants testified to a 1.46 growth rate[59] and a 1.28 growth rate is within the reasonable band of growth rates Urban identified.[60] Therefore, the PSC should find based on Sirohi's testimony that the Project is the least cost solution if only local load serving needs are considered in isolation. Even if the PSC were to find a lower growth rate were appropriate, the Reconductor Option should be rejected because it cannot reasonably meet the need due to construction timelines and constraints. The Reconductor Option provides no transfer capability, requires the rebuilding of 200 miles of 161 kV transmission lines throughout the La Crosse area, and due to restrictions on taking other lines out of service, will take an estimated seven years to complete.[61]

The PSC should also decline to adopt CUB's recommendation that a lower voltage solution be implemented to serve the community of La Crosse. Like Sirohi, Hahn evaluated alternatives looking narrowly at the ability of the alternative to address the reliability problem in La Crosse.[62] In his testimony, Hahn recommended the PSC consider two alternatives.[63] One the Applicants analyzed: a 161 kV solution from Rochester to the Briggs Road Substation, identified as the "161 kV North Rochester – Briggs Road Alternative" in the Supplemental Need Study.[64] Hahn suggested that alternative "appears to result in lower costs to Wisconsin while still addressing the identified reliability concerns for a fairly long time into the future, and therefore better matches the costs and benefits to Wisconsin."[65] This alternative is not a reasonable alternative to the Project because:

- Long-term transfer capability across the MWEX interface would be degraded 600 to 1000 MW from the existing condition.[66]
- The alternative provides only 550 MW of load serving capability compared to 750 MW of capability the Project achieves.[67]

[59] King Tr. 145:22-146:1.
[60] Urban Direct at 6:6-19; Ex.-PSC-Urban-1 at 3.
[61] Ex.-Applicants-Stevenson-15.
[62] Hahn Tr. 19:16-20:4.
[63] Hahn Direct at 33:17-21.
[64] Ex.-Applicants-King-2 at 6-8 and 46.
[65] Hahn Direct at 30:13-15.
[66] Ex.-Applicants-King-2 at 9.

- The alternative provides less reduction in system losses.[68]
- It underutilizes a crossing of the Mississippi River and the U.S. Fish and Wildlife Service's Upper Mississippi River National Wildlife and Fish Refuge where maximizing capacity should be achieved to reduce the need for additional transmission lines to cross these valuable natural resources in the future.[69]
- The Alternative creates a "stopper" in the middle of the 345 kV connections planned for the MISO footprint for overall regional reliability and benefits. As PSC staff Engineer Don Neumeyer explained: "By adding a lower line with lower capacity rating between two 345 kV lines, it becomes the 'weak' link in a sequence of 345 kV lines. To prevent the lower capacity line from overloading, one must limit the power transfer by reducing the capability to match the lowest rated, limiting element."[70]

In an attempt to overcome the regional deficits of his proposed 161 kV solution, Hahn put forth a conceptual 345 kV/161 kV alternative which would bring the 345 kV line from Minnesota to Alma and a 161 kV line from Alma to the Briggs Road Substation.[71] This option is neither developed nor supported in the record. For example, Hahn asserted that the Wisconsin share of this combination alternative would be comparable or less than Wisconsin's share of the Applicants' 161 kV alternative (undefined), but acknowledged he did not conduct a cost analysis.[72] He also testified that he did not do any engineering studies for this alternative.[73] There are no cost estimates of the alternative or any consideration of the fact the La Crosse – Madison 345 kV line likely would be more than 50 miles longer if brought to Alma rather than interconnecting at Briggs Road Substation as contemplated in MTEP11, resulting in additional, avoidable environmental impacts.[74]

IV. THE PROPOSED PROJECT COMPLIES WITH THE REQUIREMENTS OF WIS. STAT. §§ 196.49(3)(B) AND 196.491(3)(D)5

The proponents of a 345 kV Project must show that the project will not 1) substantially

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[67] Ex.-Applicants-King-2 at 53.
[68] Ex.-Applicants-King-2 at 50.
[69] King Direct at 19:21-20:8.
[70] Ex.-PSC-Neumeyer-5 at 1.
[71] Hahn Direct at 31-32 and 33:1-13; *C.f.* Hahn, Tr. 46:15-18.
[72] Hahn, Tr. 43:1-14.
[73] Hahn, Tr. 43:15-20.
[74] *See* Hahn Tr. 38:21-23 (discussing that the La Crosse – Madison 345 kV line would need to be longer if the 345 kV line for the Project terminated in Alma).

impair the utility's efficiency of service; 2) provide facilities unreasonably in excess of future requirements and; 3) add to the cost of service without proportionately improving the value or quantity of service absent specific PSC determinations. The PSC should find that the Project satisfies all of these requirements.

There is no evidence in the record that the Project will impair service. Rather the evidence shows that service will be enhanced. As detailed above, the Project will provide substantial benefits to the La Crosse area and the surrounding area commensurate with its costs.

V. APPLICANTS PROVIDED REASONABLE COSTS FOR THE PROPOSED PROJECT

No party challenged the reasonableness of costs. The estimated cost of the entire Project is $511 million (based on the Q1-Highway 35 Route).[75] PSC staff and Hahn confirmed that these costs are reasonable for the Project.[76]

VI. Q1-HIGHWAY 35 ROUTE FOR THE PROPOSED PROJECT IS IN THE PUBLIC INTEREST, CONSIDERING THE REQUIREMENTS OF WIS. STAT. §§ 1.12(6), 196.025(1M), AND 196.491(3)(D)

For the Project, Applicants proposed three routes to make the connection from the Mississippi River crossing at Alma to the new Briggs Road Substation near the village of Holmen: (1) the Q-1 Highway 35 Route; (2) the Q-1 Galesville Route; and (3) the Arcadia Route.[77] In addition to these three complete routes, three route segment options are also under consideration, the State Highway ("STH") 88 Connector A and B and the Ettrick Connector.[78] With the agencies' suggested STH 88 Connectors (which can be paired with the Q1-Highway 35 or Q1-Galesville

[75] Stevenson Third Supplemental Direct at 3:10-11; Ex.-Applicants-Stevenson-13.
[76] Sirohi Tr.624:23-625:5; Hahn Tr. 80:7-8.
[77] Hillstrom Direct at 9:10-11.
[78] Hillstrom Direct at 11:22-12:5.

routes) and the Ettrick Connector (paired with the Arcadia Route), there are eight routes.[79] Applicants developed these routes and route options over a period of more than three years of careful study, significant public involvement, and the participation of federal and state agencies.[80]

Siting high voltage transmission lines requires a balancing of various factors and trade-offs between competing interests, including agency concerns. The eight route alternatives strike different balances in their impacts on the human and natural environments. The PSC must balance these impacts and agency concerns in selecting the route that, in its judgment, best serves the overall public interest. While all of the routes under consideration in this proceeding are viable and constructible routes that comply with the statutory and rule requirements for issuance of a CPCN, Applicants believe that the Q1-Highway 35 Route best serves the overall public interest. Compliance with the siting priorities law and comparison of human impacts, natural resource impacts, and agricultural impacts all favor the Q1-Highway 35 Route, and this route will not unreasonably interfere with local land use and development plans. While both the WisDOT and DNR have indicated the Q1-Highway 35 Route may not be "permittable," Applicants believe these conclusions are not well-founded and that the underlying concerns can be adequately addressed with appropriate mitigation measures.

A. SITING PRIORITIES LAWS FAVOR THE Q-1 HIGHWAY 35 ROUTE

The siting priorities laws, Wis. Stat. § 1.12(6) and Wis. Stat. § 196.025(1m), establish a state policy favoring existing infrastructure corridors when siting new transmission facilities. These statutes place top priority on using existing utility corridors followed by highway corridors and railroad corridors. The route alternatives all use existing infrastructure corridors to some extent, but at different levels. Table 1 below compares the amount of corridor sharing by route.

[79] Ex.-PSC-Rineer-1 at XXV. The original Q1 Route is not under consideration in this docket because the United States Fish and Wildlife Service has stated it will not authorize construction across its land in the Black River Bottoms, Segment 8. Hillstrom Direct at 20:19-21:5.
[80] Hillstrom Direct at 13:14-15.

Table 1 Corridor Sharing[81]

Resource Category	Q1-Highway 35 Route	Arcadia Route	Q1-Galesville Route	WI-88 Option A Connector (Q1-Highway 35 Route)	WI-88 Option A Connector (Q1-Galesville Route)	WI-88 Option B Connector (Q1-Highway 35 Route)	WI-88 Option B Connector (Q1-Galesville Route)	Arcadia-Ettrick Connector (Arcadia Route)
General Route Impacts (Table 1A)								
Length sharing transmission line ROW (miles)	30.6	39.6	28.2	29.4	27.1	29.2	26.8	47.2
Percent sharing transmission line ROW	71.2%	72.3%	58.3%	59.1%	49.3%	59.6%	49.3%	82.8%
Length sharing railroad ROW (miles)	3.1	0	3.1	0.6	0.6	0.6	0.6	0.0
Percent sharing railroad ROW	7.2%	0%	6.4%	1.2%	1.1%	1.2%	1.1%	0%
Length sharing road ROW (miles)	6.5	9.7	6.8	14.9	15.1	8.7	9.0	2.9
Percent sharing road ROW	15.1%	17.7%	14.0%	30.0%	27.4%	17.8%	16.5%	5.1%
Length not following transmission line, roads or railroads (miles)	2.8	5.5	10.3	4.8	12.2	10.5	18.0	6.9
Percent not following transmission line, roads, or railroad	6.5%	10%	21.3%	9.7%	22.2%	21.4%	33.1%	12.1%
Total length of route (miles)	**43.0**	**54.8**	**48.4**	**49.7**	**55.0**	**49.0**	**54.4**	**57.0**
Total percent of route miles shared with existing ROW (transmission line, road, and railroad)	**93.5%**	**90%**	**78.7%**	**90.3%**	**77.8%**	**78.6%**	**66.9%**	**87.9%**

This table demonstrates that, considering the total percentage of route miles shared with existing priority corridors, the Q1-Highway 35 Route complies with the siting priorities laws to the greatest extent. In addition, the Q1-Highway 35 Route follows the highest priority corridor, an existing DPC 161 kV transmission line, for much of its length.[82] The Q1-Highway 35 Route is also the shortest route while the Arcadia Route with the Ettrick Connector is the longest.[83]

In determining which of the routes should be selected for the Project, the PSC is guided both by these priorities and by provisions of the CPCN statute that establish the factors for evaluating design and route alternatives. Under the siting priorities laws, the PSC evaluates whether the use of priority corridors "is consistent with economic and engineering considerations, reliability of electric system, and protection of the environment." Wis. Stat. § 1.12(6); Wis. Stat. § 196.025(1m). This evaluation incorporates the factors in the CPCN law, Wis. Stat. § 196.491(3), which requires the PSC to consider the same factors and others when determining whether a project is in the public interest. As discussed above, the record demonstrates that all of the routes under

[81] Ex.-Applicants-Hillstrom-7.
[82] Hillstrom Direct at 13:4-8.
[83] Ex.-PSC-Rineer-1 at 280.

consideration are consistent with economic and engineering considerations and the reliability of the electric system. The next sections of this brief describe how all of alternatives, including the Q1-Highway 35 Route, are consistent with the protection of the environment and with the other criteria specified in the CPCN statute.

B. COMPARISON OF POTENTIAL ROUTE IMPACTS

The Project satisfies the requirements of Wis. Stat. §196.491(3)(d)3. and 4., which require that the design and location or route are in the public interest considering environmental factors and that the Project will not have undue adverse impact on environmental values such as ecological balance, public health and welfare, historic sites, geological formations, the aesthetics of land and water and recreational use.

The record shows that Applicants considered the potential impacts on environmental factors throughout the design and siting process and took steps to avoid and minimize potential impacts wherever possible.[84] While each of the proposed routes will have impacts on residences, agricultural lands, wetlands and waterways, and forested areas, those impacts have been avoided and minimized to the extent possible during the siting process and will be further minimized and mitigated through the implementation of best management practices and post-construction actions.[85]

The following chart summarizes and compares some of the major characteristics and selected potential impacts for the proposed transmission lines routes.

[84] Hillstrom Direct at 22:16-34:4.
[85] Hillstrom Direct at 22:16-34:4.

Table 2: Overall Comparison of Potential Impacts[86]

Route	Cost[87] ($Millions)	Length (miles)/ Percent of ROW Length Shared	New ROW (Acres)	Agricultural Land Crossed (acres)	Approx. Number of Stream Crossing	Wetland Area Affected (acres)	New Wooded Wetland Affected (acres)	New Upland Forest Area Cleared (acres)	Number of Residences within 300 Feet of the Centerline
Q1-Highway 35	194.600	43.0/94%	404.4	325.2	43	83.5	33.3	94.5	74
Q1-Highway 35 with STH 88 Connector A	207.600	49.7/90%	509.2	399.4	43	109.0	48.3	128.4	79
Q1-Highway 35 with STH 88 Connector B	207.600	49.0/79%	543.9	417.9	43	111.2	48.0	128.1	67
Q1-Galesville	202.100	48.4/79%	497.0	367.5	48	63.7	20.0	111.9	109
Q1-Galesville with STH 88 Connector A	215.000	55.0/78%	601.8	441.7	48	60.7	27.5	145.8	114
Q1-Galesville with STH 88 Connector B	215.000	654.4/7%	636.5	460.2	48	62.9	27.2	145.5	102
Arcadia	224.400	54.8/90%	519.5	445.3	55	95.6	21.1	140.0	102
Arcadia–Ettrick Connector	233.600	57.0/88%	530.4	468.0	57	142.9	27.3	148.1	57

As shown on the above table, the Q1-Highway 35 Route is the shortest route and has comparable fewer impacts to residences than the majority of other routes under consideration. The Q1-Highway 35 Route has the fewest number of stream crossings, would result in the fewest acres of new upland forest clearing, and shares the most existing corridors. The Q1-Highway 35 Route has the least agricultural impact as it crosses the fewest acres of agricultural land.[88]

The Q1-Highway 35 Route is the shortest and least cost route option,[89] and would avoid the need for a separate project to rebuild DPC's aging Q1 Line.[90] The Q1 Line is nearing the end of its useful life and it must be completely rebuilt by late 2015.[91] The Q1-Highway 35 Route would replace all of the existing Q1 Line and rebuild it as a 345/161 kV double circuit line with the 345 kV

[86] Ex.-PSC-Rineer-1 at 280, Table 12.5-1.
[87] Ex.-Applicants-Stevenson-6.
[88] *See also* DATCP March 5, 2012 Letter at 2 (PSC REF #: 160995).
[89] Ex.-PSC-Rineer-1 at 283, Table 12.6-1.
[90] Thompson (Applicants) Direct at 6-7.
[91] Ex.-PSC-Rineer-1 at 278; Thompson Tr. 175:9-10.

line proposed for the Project. DPC estimates that it will cost its consumer-members up to an additional $40 million dollars to rebuild the Q1 Line if a non-Q1 route is selected for the Project.[92]

C. COMMUNITY LAND USE AND DEVELOPMENT IMPACTS

Under Wis. Stat. § 196.491(3)(d)(6), the PSC may only issue a CPCN for a project that "will not unreasonably interfere with the orderly land use and development plans for the area involved." Two municipalities have objected to the Project on the basis that it will interfere with local land use and development plans.[93] While Applicants acknowledge that a new transmission line will have some impact on land use plans, the record demonstrates that none of the eight routes will unreasonably interfere with local land use and development plans.[94]

D. AGENCY CONSIDERATIONS

1. *DNR*

The DNR is charged with enforcing the provisions of Wis. Stat. ch. 30 regarding navigable waters, harbors, and navigation, which includes the task of reviewing and issuing permits to utilities for impacts to waterways and wetlands. The Project will require wetland permits regardless of which route is selected.[95] If a CPCN is issued by the PSC for this Project, the DNR will have 30 days from the order to decide whether to issue the requisite wetland permits for the proposed Project.[96] In its testimony, DNR stated that Segment 8 of the Q1-Highway 35 Route through the Black River floodplain may not be permittable by DNR under Wis. Stat. 30.025 because there are practicable alternatives to this segment that would avoid "cumulative and significant adverse impacts" to the

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[92] Thompson (Applicants) Direct at 7:3-5.
[93] *See* Ex.-PSC-Rineer-1 at 15, fn. 37 citing letter from David Carlson, Holland Town Chairman, to PSC, August 15, 2011 (expressing concerns about the Project including potential conflicts with the town of Holland's comprehensive plan).
[94] *See* Ex.-PSC-Rineer-1 at 150.
[95] Laatsch Direct at 7:18-19.
[96] Laatsch Tr. 511:3-11.

floodplain.[97] DNR's assertion of "cumulative and significant adverse impacts" fails to fully evaluate all of the routes under consideration and does not take into account the mitigation measures proposed by Applicants to minimize potential impacts. In addition, the DNR's position is not a final permitting decision and Applicants anticipate that if the Q1-Highway 35 Route were selected by the PSC, consistent with Section 30.025(2s), and based on all the routing criteria, the DNR should conclude there is no practicable alternative to the approved route and that DNR's remaining concerns could be addressed during the DNR's subsequent permitting process.

a. DNR Provides No Documentation of Q1-Highway 35 Route Analysis

While there is no specific statutory or rule criteria that precludes DNR from issuing permits for utility crossings of the Black River floodplain, the DNR has stated that such a crossing may not be permittable because, in DNR's estimation, "significant adverse impacts" to this area would result.[98] During the hearing, DNR witnesses could not identify a single page of written analysis documenting the agency's examination of the Q1-Highway 35 Route's crossing of the Black River floodplain which resulted in the significant impact determination other than the DNR's own testimony.[99] In comparison, Applicants analysis of the potential impacts of the proposed routes on wetlands and waterways, including the Black River floodplain covers nearly 50 pages in its CPCN application. This includes an 18-page appendix which outlines a specific construction plan designed to mitigate impacts to the Black River floodplain.[100] Applicants' analysis shows that many of the potential impacts to the floodplain can minimized by appropriate design and construction techniques and mitigated through removal of existing transmission corridors and other measures.

[97] Laatsch Direct at 12:1-15; Laatsch Tr. 503:20-25.
[98] Laatsch Direct at 12:1-15.
[99] Thompson Tr. 560:9-11; Laatsch Tr. 505:12-16.
[100] Ex.-Applicants-Stevenson-5.

b. DNR's Analysis of Potential Impacts Disputed

Lacking contemporaneous documentation supporting its decision, DNR's testimony points to the Q1-Highway 35 Route's possible fragmentation of the Black River floodplain, potential impacts to the Eastern Massasauga Rattlesnake ("EMR"), and potential impacts to migratory birds as its basis for its "significant adverse impact" determination.[101] However, the likelihood of these impacts and their possible magnitude is disputed and an evaluation of the record evidence suggests DNR's concerns are overstated.

With regard to fragmentation, DNR asserts that the Q1-Highway 35 Route will result in habitat fragmentation and facilitate the spread of non-native invasive reed canary grass.[102] While Applicants agree that the route would change the habitat from forested to non-forested along the proposed alignment, it is important to note that State Highway 35 ("STH 35") represents a much more intense source of fragmentation within the Black River floodplain than the proposed transmission line.[103] In addition, the removal of the remote, and longer (three miles vs. two miles) Q1 Line transmission corridor and its replacement along the existing STH 35 corridor reduces the overall fragmentation of the Black River floodplain.[104] The spread of reed canary grass can also be mitigated by planting trees within the abandoned Q1 Line right-of-way.[105] After trees grow to a sufficient size, their canopy will shade out reed canary grass.[106] This will allow for the re-establishment of native floodplain forest species. Applicants provided evidence of showing the reforestation of an abandoned utility corridor in less than 20 years without any active reforestation efforts.[107]

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[101] Thompson (DNR) Direct at 5-6.
[102] Thompson (DNR) Direct at 5.
[103] Hillstrom Sur-Surrebuttal at 4.
[104] Hillstrom Rebuttal at 4-5.
[105] Hillstrom Rebuttal at 5-6.
[106] Hillstrom Rebuttal at 6; Hillstrom Sur-Surrebuttal at 3.
[107] Hillstrom Sur-Surrebuttal at 2.

The DNR also asserts that the Q1-Highway 35 Route would result in "significant potential to negatively impact" the EMR, a rare species which may be present within the Van Loon Wildlife Area.[108] The most recent surveys in the Black River bottoms occurred in 2007, where one EMR was sighted.[109] However, the current habitat in the Van Loon Wildlife Area is not suitable for long-term population growth of the EMR. The Van Loon Wildlife Area has primarily developed into late successional vegetation; *i.e.*, forest canopy greater than 60%.[110] The recently published extinction model for this species finds that this vegetation type puts in peril the long term outlook for any population growth of EMR within the Van Loon Wildlife Area as the EMR prefers habitats with more sun.[111] Removal of forested floodplain species along the Q1-Highway 35 Route (Segment 8B) would remove the closed canopy along its right of way and open up larger habitat areas for the EMR.[112]

DNR also states that the proposed transmission structures have the potential to serve as a source of mortality for migrating birds within the Black River floodplain.[113] No evidence was provided on the record to support this conclusion. Also, this conclusion does not consider the fact that almost all of the Applicants' proposed structures along STH 35 in the Black River floodplain are 75 feet tall, which is below the average tree height in this area.[114]

c. DNR Did Not Compare All Routes and All Impacts

Significantly the DNR's permitting testimony fails to compare the impacts of various route alternatives and instead focuses on one route's impacts to one wetland complex, the Black River

[108] Thompson (DNR) Direct at 5-6.
[109] Ex.-PSC-Rineer-1 at 117.
[110] Hillstrom Direct at 29.
[111] Hillstrom Direct at 29 citing "Range wide Extinction Risk Modeling for the Eastern Massasauga Rattlesnake (*Sistrurus catenatus catenatus*)-Final Report," Faust, L. J. Szymanski and M. Redmer, USFWS and Lincoln Park Zoo, 2011 at p. 66.
[112] Hillstrom Direct at 29-30.
[113] Thompson Direct at 6:5-9.
[114] Ex.-Applicants-Hillstrom-32.

floodplain. However, all of the routes will result in wetland impacts[115] and overall, the Q1-Highway 35 Route results in fewer total wetlands affected compared to the DNR-favored Arcadia Route (83.5 acres v. 95.6 acres).[116] The Q1-Highway 35 Route would have fewer homes within 300 feet than the Arcadia Route.[117] The Q1-Highway 35 Route is significantly shorter and less costly than the Arcadia Route, 43 miles at $195 million versus 54.8 miles at $224 million.[118] In addition, if the Q1-Highway 35 Route were selected over the Arcadia Route, $34 to $40 million in costs to rebuild the existing Q1 Line would be avoided.[119] This overall analysis provides a better evaluation of the route alternatives than the DNR's examination of an impact to a single resource.

d. DNR Did Not Consider Mitigation Measures

The DNR's assertion of "significant adverse impacts" also fails to consider the mitigation measures proposed by the Applicants. If the PSC approves a route including Segment 8B, Applicants can and will mitigate wetlands impacts in consultation with DNR and as required by Army Corps of Engineers regulations.

Applicants contend that construction of the Q1-Highway 35 Route will alleviate wetland impacts from DPC's existing Q1 Line that is currently located in the Van Loon Wildlife Area and the Refuge. As part of the Q1-Highway 35 Route proposal, Applicants plan to remove the existing Q1 Line and double circuit the rebuilt Q1 Line with the new 345 kV line parallel to STH 35.[120] This would eliminate three miles of existing transmission corridor within the Van Loon Wildlife Area and move it to a two-mile, already disturbed highway corridor.[121] After the Q1 Line is removed, the

[115] Laatsch Tr. 508:6-8.
[116] Ex.-PSC-Rineer-1 at 280, Table 12.5-1.
[117] Ex.-PSC-Rineer-1 at 276, Table 12.3-1. The Q1-Highway 35 Route would pass within 300 feet of 74 residences while the Arcadia Route would have 103 residences within 300 feet. *Id.*
[118] Ex.-PSC-Rineer-1 at XXV, Table ES-8 and 48, Table 4.5-2.
[119] Ex-Applicants-Stevenson-6.
[120] Hillstrom Direct at 10.
[121] Hillstrom Direct at 26.

current right-of-way of the Q1 Line could be subject to a restoration plan.[122]

Also, Applicants have proposed to explore the purchase of private property for incorporation into the Van Loon Wildlife Area and Applicants have committed to schedule construction work to avoid potential avian impacts.[123] Applicants have also suggested habitat improvement measures such as wildlife passages below STH 35 and forest management to open up the canopy for improved habitat for the EMR.[124] In addition, Applicants proposed the use of helicopter construction.[125] Applicants believe that these mitigation and impact minimization measures could result in a net benefit to the functions and values of the Black River floodplain.[126] Applicants are also open to other mitigation options to address wetlands impacts. The DNR has not commented on Applicants' proposed mitigation measures.[127]

DNR's statements regarding the nonpermittability of Segment 8B of the Q1-Highway 35 Route are unsupported by the record and should not preclude selection of this route. Applicants believe that the DNR's concerns can be addressed during the subsequent DNR permitting process.

2. *WisDOT*

WisDOT objects to the routes that follow STH 35, the Great River Road ("GRR"), specifically the Q1-Highway 35 and Q1-Galesville routes, and states it will require undergrounding in right-of-way and scenic easements if either route is selected. WisDOT attempts to block selection of these two routes based on its ownership interest in scenic easements along STH 35 and under its authority to grant permits for occupation of state trunk highway right-of-way.[128] A review of the

[122] Hillstrom Direct at 26.
[123] Hillstrom Direct at 26.
[124] Hillstrom Direct at 26-27.
[125] Hillstrom Direct at 27.
[126] Hillstrom Direct at 27.
[127] Hillstrom Direct at 27.
[128] WisDOT lacks any authority outside the highway right-of-way and scenic easements: Fasick testified: "As long as it's out of scenic easement and out of right-of-way, we have no authority." Fasick Tr. 376:1-2.

evidence demonstrates (1) that the scenic easements allow construction of new electrical facilities and (2) that WisDOT's last-minute reversal of opinion to require undergrounding in the scenic easements and at crossings of STH 35 unless one of its favored routes is selected is unreasoned and unreasonable.[129]

a. Scenic Easements Allow Transmission Lines

The proposed STH 35 routes generally follow the existing DPC Q1 Line from Alma to Holmen. During the 1940s, DPC obtained right-of-way easements to construct the Q1 Line along segments of STH 35 that are along the Q1 Routes ("Q1 Easements"). The Q1 Easements, generally in blanket form, provide, in part, that DPC and its "successors and assigns" have the right to "construct … replace … electric transmission and/or distribution line, or lines or system, of single pole or 'H' frame type structure."[130]

WisDOT began purchasing scenic easements along the GRR in 1951. The scenic easements along the proposed routes, with four exceptions detailed in Hillstrom's Direct Testimony,[131] provide for "**permitted uses**" that include the installation of "**electric … lines … for the purpose of transmitting … power**."[132] WisDOT did not condemn, purchase, or otherwise acquire any of DPC's easement rights.[133] In various locations along the Q1-Highway 35 Route, the route overlaps WisDOT scenic easements.[134] In a number of scenic easement locations, there are underlying existing DPC Q1 Easements.[135]

WisDOT has contended that the scenic easements prohibit 345 kV transmission lines, but

[129] WisDOT admits that the same segments may be underground or overhead depending on the route selected. Fasick explained that WisDOT was trying to "have a little give and take". Fasick Tr. 415:1.
[130] Hillstrom Direct at 34:8-12.
[131] Ex.-Applicants-Hillstrom-15.
[132] Hillstrom Direct at pp. 36-38.
[133] Hillstrom Direct at 35:9-12.
[134] Hillstrom Direct at 35:2.
[135] Hillstrom Direct at 35:2, 11-12.

neither the law nor the agency's own witnesses support this interpretation. The terms of an easement are interpreted according to their plain meaning.[136] With respect to restrictions on land (at least in the case of restrictive covenants), Wisconsin follows the majority rule that when land is burdened by a restriction it must be express and unequivocal and that any ambiguity "should be resolved in favor of the free use" of the land and against the drafter.[137] Moreover, when an express activity is allowed, that language controls.[138] Also, because WisDOT did not acquire any rights from DPC when it obtained its scenic easements, WisDOT cannot prevent DPC from exercising its rights under its Q1 Easements.[139]

At hearing, the WisDOT witness defending WisDOT's interpretation lacked personal knowledge of any policy or position. She had never been involved in a scenic easement acquisition or release and was providing testimony as a layperson, not an expert.[140] She also had no explanation for WisDOT's position that the Project cannot be constructed in scenic easements: "I don't know that DOT has a position, but I can probably speak to that and give you an example."[141]

Given Wisconsin law and the plain language in the scenic easements, WisDOT's interpretation is not reasonable and should not prevent the selection of the Q1-Highway 35 Route.[142] Moreover, even if the scenic easements could be construed as WisDOT desires, WisDOT

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[136] *See, e.g., Hunter v. Keys*, 600 N.W.2d 269, 272 (Wis. Ct. App. 1999) (observing that when courts interpret an easement agreement the analysis begins with the plain language of the written instrument).
[137] *See Crowley v. Knapp*, 288 N.W.2d 815, 824 (Wis. 1980).
[138] *Pertzsch v. Upper Oconomowoc Lake Ass'n*, 2001 WI App 232, ¶ 17, 248 Wis.2d 219, 635 N.W.2d 829 (holding that express language that allowed boathouse use controlled over general purpose statement in easement).
[139] *AKG Real Estate, LLC v. Kosterman*, 2006 WI 106, 296 Wis.2d 1, 717 N.W.2d 835 (holding that subsequent easement does not terminate earlier easement even if subsequent easement is silent regarding existence of prior easement).
[140] Vetsch Tr. 457:4-10; 461:507.
[141] Vetsch Tr. 455:24-456:3.
[142] DATCP Chief Legal Counsel David Meany concurs with this conclusion: "Since electric lines and structures are a specific permitted use, I believe it would not be appropriate for WisDOT to rely

has the discretion to nevertheless authorize placement of the transmission lines in the scenic easements. At hearing, Fasick described how the village of Holmen merely asked for scenic easements to be released and WisDOT obliged, apparently without any special governmental approval or aesthetic impacts analysis.[143] Fasick explained that when a requestor like Holmen asks for scenic easements to be released, "then we have the ability to say yes or no."[144] Vetsch Exhibit 3 provided additional examples of 41 easement releases, many for development, including a truck terminal and a City Hall, and most for no cost or a nominal $500 fee. In 2011, WisDOT also approved the placement of a 69 kV line in scenic easements along STH 35 for NSPW's Winona tap project.[145]

3. *Utility Permit Authority*

WisDOT's position with respect to permits for occupation of the highway right-of-way has varied over the course of this proceeding. Its most recent position, wholly developed during a 20-hour timeframe, is that unless one of WisDOT's favored routes is selected, the 345 kV line must be placed underground in STH 35 right-of-way due to aesthetic concerns, regardless of whether it is a crossing or a longitudinal installation. One 0.75 mile segment (2A1, 2A2) in scenic easements is common to both Arcadia and Q1-Highway 35 routes. Curiously, WisDOT's opinion is not consistent within this common segment-if the favored Arcadia Route is selected, the line can be placed overhead; if the disfavored Q1-Highway 35 Route is selected, it must be placed underground at the very same location.

Some limited history of WisDOT's opinion is warranted here. In November 2011, when WisDOT sought support from the Federal Highway Administration ("FHWA") for the proposition

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upon the exclusion relating to an expansion of general commercial and industrial uses to concludes that the proposed Project routes are not allowed within the scenic easements." (PSC Ref. #160995.)

[143] Fasick Tr. 337:13-16; 414:13-17; 442:6-17.

[144] Fasick Tr. 414:6-12.

[145] Ex.-WisDOT-Fasick-17.

that WisDOT could not issue permits for longitudinal installations of the transmission line along STH 35, WisDOT Secretary Gottlieb wrote that WisDOT could permit crossings of STH 35:[146]

> WisDOT understands that this federal law is primarily intended to address longitudinal installations such as the proposed Q1 alternative route, but there may be locations where a proposed transmission line would merely need to cross highway R/W and thus could be permitted to do so.[147]

The Secretary also stated in his letter that "due to the high voltage, the new CapX line cannot be economically built underground using today's technology and thus must be above ground."[148]

In response to WisDOT's letter, Applicants made adjustments to three segments along the Q1-Highway 35 and Q1-Galesville routes, Segments 2A/2B, 2C/2D and 8A/8B/8C to avoid overlapping highway right-of-way.[149] When WisDOT later asserted that some of the crossings proposed may be considered longitudinal, Applicants advised that the crossings could be made perpendicular if required with minor adjustments.[150] This left only STH 35 crossings within WisDOT's permitting authority.

At 3:58 p.m. February 9, 2012, FHWA responded to the Secretary's letter stating that WisDOT had the authority to make permitting decisions for STH 35.[151] On February 10, 2012, in the Direct Testimony of Robert Fasick, Right-of-Way Accommodation and Permits Engineer, WisDOT announced its new determination that it would require the line to be underground in highway right-of-way.[152] In Fasick Surrebuttal, WisDOT clarified that this requirement includes crossings.[153] Fasick also explained that the decision was made between the time WisDOT received FHWA's letter and the noon testimony deadline the next day.

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[146] Ex-Applicants-Hillstrom-19.
[147] Ex.-Applicants-Hillstrom-19 at. 3.
[148] Ex.-Applicants-Hillstrom-19 at 2.
[149] Hillstrom Direct at 47:11-23; 48:1-4.
[150] Stevenson Rebuttal at 3.
[151] Fasick Tr. 379:20-23; Ex.-WisDOT-Fasick-14.
[152] Fasick Direct 8-10.
[153] Fasick Surrebuttal at 5.

For legal authority, WisDOT relies solely on three provisions: Wis. Stat. § 86.07(2), Wis. Stat. § 14.85, and 23 CFR 645.209(h).[154] WisDOT's reliance on these statutes is misplaced. Section 86.07 is WisDOT's statutory authority for issuing permits for construction in the highway right-of-way. The statute has no reference to aesthetics or undergrounding. Similarly, WisDOT's non-voting membership of the Wisconsin Mississippi River Parkway Commission does not grant WisDOT any authority to bar transmission lines along STH 35 for aesthetic reasons.[155]

WisDOT's last citation is to a federal regulation. While WisDOT may be required by the FHWA and its rules to adopt an accommodation policy, WisDOT has no authority to enforce federal law. State agencies, such as WisDOT, are creatures of statute that have "only those powers expressly conferred or necessarily implied" by the statutes under which they operate.[156] The Wisconsin Legislature has delegated to WisDOT the authority to construct and maintain state trunk highways designated as part of the federal aid highway system and to receive and expend federal funds in accordance with federal law, but not, however, to enforce federal law.[157]

A review of the record provides compelling evidence that the decision does not represent reasoned agency decision making.

- **Unprecedented**: This is the first time WisDOT has ever taken the position that a transmission line would need to be underground due to aesthetic considerations.[158]
- **Unstructured**: WisDOT came to the opinion that undergrounding is the only means by which the GRR can be protected when preparing direct testimony.[159] The actual decision-making is unknown. Fasick could not be "specific" on what activities happened at WisDOT to reach that decision because he does not know.[160]

[154] Fasick Tr. 384:20-385:1.
[155] Wis. Stat. 14.85(2).
[156] *Brown Cnty. v. Dep't of Health & Soc. Servs.*, 103 Wis.2d 37, 43, 307 N.W.2d 247, (Wis. 1981).
[157] Wis. Stat. § 84.01(2) and (15).
[158] Fasick Tr. 356:3-10.
[159] Fasick Tr. 360:14-17.
[160] Fasick Tr. 380:17-22.

- **Lack of Expertise**: The conclusion about aesthetic impacts was made by unidentified senior management who met in a room with Fasick who gave a presentation.[161] They looked at Applicants' visual assessments and decided there would be a significant aesthetic impact on the GRR.[162] The decision was made without input from the one person at WisDOT who had actually undertaken aesthetic impacts analyses, WisDOT Rustic Roads and Scenic Byways Coordinator Jane Carrola.[163] Details about Carrola's most recent analysis are discussed below.
- **No criteria**: WisDOT did not apply any specific criteria to determining whether there would be significant aesthetic impacts.[164]
- **Incomplete Analysis**: WisDOT gave no consideration to aesthetic impacts of undergrounding, including the one-acre transition stations that would be required on each side of a highway crossing.[165] In fact, Fasick had no opinion about the aesthetic impacts of these major facilities.[166] WisDOT's analysis is also devoid of the recognition that the STH 35 corridor is filled with infrastructure including a major coal power plant, railroad and multiple transmission lines.
- **Rushed and Undocumented**: WisDOT made its decision that undergrounding would be required between 3:58 p.m. February 9, 2012 and noon February 10, 2012 but has no documentation to show its analysis.[167]
- **Misplaced reliance on Google**: Fasick, who admittedly is "not an expert" on undergrounding, is part of the unidentified team that analyzed the technical and economic feasibility of undergrounding for WisDOT.[168] Fasick determined that undergrounding could be economically built after "Googling" for "a couple of hours at most."[169]
- **No independent analysis**: WisDOT's objection to Segment 8 is not based on its analysis, but rather, a desire to do as its sister agency, the DNR, requests. Fasick explained: "So, if they refuse permit authority in that area, we would honor and respect their decisions."[170]

WisDOT's conclusion about significant aesthetic impacts is also unsupported by the Carrola's analyses. While Carrola testified about her personal desire to protect the GRR, her own documents show that, from a scenic byways perspective, many of the locations may be acceptable.

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[161] Fasick Tr. 394:3-10; *see also* Wis. Stat. § 227.10(2m) ("No agency may implement or enforce any standard, requirement, or threshold . . . unless that standard, requirement, or threshold is explicitly required or explicitly permitted by statute or by a rule that has been promulgated in accordance with this subchapter.").
[162] Fasick Tr. 394:17-395:3.
[163] Carrola Tr. 483:9-13.
[164] Fasick Tr. 395:4-12 (stating he could not identify any other instance).
[165] Fasick Tr. 376:12-16.
[166] Fasick Tr. 376:12-16.
[167] Fasick Tr. 384:15-19.
[168] Fasick Tr. 318:20-21.
[169] Fasick Tr. 370:6-8; 439:8; 371:23-372:3, 372:14-373:6.
[170] Fasick Tr. 446:20-447:8.

In her June 24, 2010 memo, she concluded that eight of the 14 locations she analyzed for aesthetic considerations "might be acceptable as proposed" and that six others would need to be addressed.[171] After Applicants made further adjustments, Carrola did an updated assessment on 22 locations along the GRR and determined that Applicants' adjustments had made the impacts in 10 of the original locations "slightly better."[172] She noted that if an alternative alignment is not an option, then WisDOT "could reluctantly support what is being proposed."[173] She also noted that impacts of the transmission line on US 53 and STH 35 and Briggs Road in Onalaska were "slightly worse … but [the] main function is transportation not scenery."[174]

Regardless of the route selected, Applicants remain ready and willing to further discuss mitigation options with WisDOT. However, neither the facts, nor the law support WisDOT's position that undergrounding is required.

VII. A CONDITION AUTHORIZING MINOR ROUTE FLEXIBILITY IS WARRANTED

Both Applicants and PSC agree that the CPCN Order should allow Applicants some flexibility to make minor adjustments to the approved centerline for the Project to work with landowners in determining final structure locations.[175]

CONCLUSION

As set forth in the CPCN application and in the record developed for the technical and public hearings, it is beyond reasonable dispute that the Project is needed, and as proposed, is reasonable and should be approved. Applicants respectfully request that the PSC issue Applicants a CPCN for this Project.

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[171] Ex.-WisDOT-Fasick-11 at 8.
[172] Ex.-WisDOT-Carrola-1.
[173] Ex.-WisDOT-Carrola-1.
[174] Ex.-WisDOT-Carrola-1.
[175] Rineer Direct at 6-7; Hillstrom Direct at 50.

Dated: March 30, 2012

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