

**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

**INITIAL BRIEF OF
AMERICAN TRANSMISSION COMPANY LLC AND ATC MANAGEMENT INC.**

I. INTRODUCTION.

American Transmission Company LLC and ATC Management Inc. (collectively “ATC”) hereby file their Initial Brief in the above-captioned proceeding before the Public Service Commission of Wisconsin (“Commission”). ATC has been actively planning the Badger Coulee Project, a proposed 345 kV transmission line from the La Crosse area to Dane County. It intends to file a CPCN Application for this project in 2013. ATC’s interest in this proceeding arises from the fact that the Hampton-Rochester-La Crosse 345 kV Project proposed in this proceeding (“Project”) would interconnect with ATC’s Badger Coulee Project at a point in western Wisconsin north of the La Crosse area.

A key factor in achieving the regional benefits of the Badger Coulee Project for Wisconsin customers is a continuous 345 kV interconnection from Minnesota to Wisconsin. The Project proposed in this proceeding would provide that link. ATC supports the position of Dairyland Power Cooperative (“DPC”), Northern States Power Company–Wisconsin (“NSPW”), and Wisconsin Public Power, Inc. (collectively “Applicants”) that a 345 kV line across the

Mississippi River into western Wisconsin would provide significant benefits to Wisconsin customers and is therefore in the public interest.

The Commission's route selection in this proceeding will also affect the interconnection point to the Badger Coulee Project. ATC has identified five locations along the Applicants' proposed routes that could serve as switching stations connecting to the Badger Coulee project. However, its routing and siting activities have revealed severe practical difficulties in reaching one of these sites, the proposed Briggs Road Substation near Holmen. These efforts have also disclosed that three of these sites (one northeast of Arcadia (Site A), one west of Ettrick (Site B), and another southwest of Galesville (Site C)) are more feasible interconnection points due to the availability of existing transmission corridors, fewer environmental challenges, and less overall development in these areas.

As a result of these activities, ATC has concluded that these three interconnection points are preferable. These three interconnection points are consistent with the Applicants' Arcadia Route or its Arcadia Route with the Ettrick Connector. For these reasons, ATC urges the Commission to consider selecting one of these routes in this proceeding.

II. ATC SUPPORTS A 345 kV PROJECT FROM MINNESOTA TO THE LA CROSSE AREA.

The Midwest ISO ("MISO") included the Applicants' 345 kV Project in Appendix A of the 2008 Midwest ISO Transmission Expansion Plan ("MTEP"), designating it as a Baseline Reliability Project. (*See Ex.-Applicants-Kline-2; Item-NCX-CETF-8*). This action constituted regional planning approval for a line from Hampton Corners, Minnesota to North La Crosse, Wisconsin. (*See Ex.-Applicants-Kline-4*).

Since that time, ATC has included the Project in its planning analyses for the year 2016 and beyond. (*Direct-ATC-Burmester-3*). ATC included the Project in its Ten-Year Assessment,

its planning analyses for the Badger Coulee Project, and the Western Wisconsin Transmission Reliability Study (“WWTRS”). (Direct-ATC-Burmester-3-6). These studies are predicated upon a new 345 kV line from the metropolitan Twin Cities area across the Mississippi River into Wisconsin.

ATC has not conducted its own studies of the proposed Project. However, it generally supports the Applicants’ position that a 345 kV line from the west that terminates in the La Crosse area would provide significant reliability, usage, and service benefits to Wisconsin customers. (Direct-ATC-Burmester-6).

III. ATC HAS AN INTEREST IN AN APPROPRIATE INTERCONNECTION POINT BETWEEN THIS PROJECT AND ITS BADGER COULEE PROJECT.

ATC has also engaged in extensive planning, routing, and siting work in support of its Badger Coulee Project. (Direct-ATC-Burmester-3; Surrebuttal-ATC-Holtz-5-6). This project would interconnect with the Applicants’ Project at a point north of La Crosse yet to be determined. (Surrebuttal-ATC-Holtz-5-6).

The need for and benefits of a 345 kV line from La Crosse to Madison have been studied by ATC and by other parties since the 1998 WIRES Report. (See Rebuttal-Applicants-Kline-6-9). MISO included the Badger Coulee Project in its 2011 MTEP. (See Ex.-Applicants-Kline-3; Item-NCX-CETF-9, 10, 23).

ATC is currently conducting further analyses of the Badger Coulee Project. It is identifying potential routes for the project and has held its first two sets of open houses for the project. It anticipates filing a CPCN Application for the project in 2013. (Direct-ATC-Burmester-4; Direct-ATC-Holtz-3).

The merits of the Badger Coulee Project are not, however, an issue in this proceeding. The principal need issue in this proceeding is whether or not the Wisconsin portion of the

Applicants' Project "provides usage, service or increased regional reliability benefits to the wholesale and retail customers . . . in this state" and whether "the benefits of the high-voltage transmission line are reasonable in relation to the cost." *See* Wis. Stat. § 196.491(3)(d)3t. The principal routing issue in this proceeding is which proposed route is in the public interest, considering the siting priorities set forth in Wis. Stat. § 1.12(6) and the various factors set forth in Wis. Stat. § 196.491(3)(d)3. In applying these broad routing standards, the Commission must weigh many factors, including which specific route for this Project will preserve an appropriate interconnection point to the Badger Coulee Project.

IV. THE ARCADIA ROUTE OR THE ARCADIA ROUTE WITH THE ETTRICK CONNECTOR PROVIDE THE PREFERABLE INTERCONNECTION POINTS TO THE BADGER COULEE PROJECT.

A. Clarifying the Interconnection Point Issue.

There is considerable misunderstanding in this record on the issue of the interconnection point between the Applicants' Project and ATC's Badger Coulee Project. The Applicants' testimony and exhibits that speak to this issue assume that the interconnection point must be identical to the point at which the voltage of the proposed Project is stepped down at a transformer from 345 kV to 161 kV. (*See, e.g.,* Rebuttal-Applicants-Kline-3 ("Moving the [proposed Briggs Road Substation] interconnection point a considerable distance to the north . . . would be inconsistent with . . . planning principles."); *see also* Supplemental Direct-Applicants-King, Stephenson, and Hillstrom (also premised on the assumption that step-down transformation of the proposed Project would take place at the Badger Coulee interconnection point)). For a graphical representation of this assumption, see Ex.-Applicants-Hillstrom-29.

This is an incorrect assumption. The Badger Coulee interconnection point does *not* have to be the same location as the step-down transformation location for the proposed Project, be it a

Briggs Road Substation or some other location. The Badger Coulee Project can interconnect with the proposed Project at a *switching station* along such line. (Surrebuttal-ATC-Burmester-2; Surrebuttal-ATC-Holtz-2). ATC's purpose in submitting its testimony on routing and siting is to identify the pros and cons of various interconnection points between the Applicants' Project and ATC's Badger Coulee Project, not to take a position on the proper location for step-down transformation.

B. ATC's Concerns about the Proposed Briggs Road Substation as the Interconnection Point.

As Peter Holtz, ATC's Routing and Siting Manager, explained, ATC has been engaged in an "extensive process" for nearly two years in order to analyze routing alternatives for the Badger Coulee Project. (Surrebuttal-ATC-Holtz-5-6). This process has included field tours, public open houses, communications with the Applicants, and route evaluations based on constructability, terrain, landowner and environment impacts, and cost. (Direct-ATC-Holtz-2-3; Surrebuttal-ATC-Holtz-3-4).

During this process, it became apparent that ATC would encounter significant difficulties in routing a 345 kV line along the Interstate 90 corridor north into La Crosse. It may not be possible to build an overhead 345 kV line along Interstate 90 in or near Fort McCoy because of United States Army flight-path restrictions in this area. Also, proceeding from Interstate 90 to the proposed Briggs Road Substation near Holmen presents another set of restrictions. The area is constrained by the Mississippi River and the La Crosse Airport to the west and bluffs to east, with the area in between heavily developed. (Direct-ATC-Holtz-3; Surrebuttal-ATC-Holtz-3).

John Lautz, representing the La Crosse Builders Association, provided specific, credible confirmation of these problems. Testifying at the Centerville public hearing, he stated that the

Association “is not opposed to the line per se. What we are opposed to is a proposal to bring it as far south down into Holmen.” (Tr. 827). His testimony is instructive:

And the reason for that is the proposed line, as it comes down that corridor, once it ends in Holmen, one of our positions is where is it going to go from there? It cannot go any further south down through the Onalaska-La Crosse corridor. You’re into some of the heaviest populated areas around.

So our position is that if it comes into Wisconsin, it should end up north because eventually it has to continue to go east. So if it comes down south to Holmen, it’s going to have to turn back up north before it can go east. Common sense says that that’s not a proper thing to do.

The other thing that we have is in the proposed area of the line, that’s going through some of the prime development in the area in the Village of Holmen. There’s already a TIF district in there, it’s the area of growth both for residential and commercial, and that’s the – one of the fastest growing areas in this part of the state.

(Tr. 827-828).

C. ATC’s Preferred Interconnection Points.

Because of these difficulties, ATC expanded its study area for its Badger Coulee Project to include an area north of La Crosse. This area offers several advantages, including the ability to co-locate on existing transmission corridors, fewer environmental challenges, and overall less development than the La Crosse metropolitan area. ATC identified and published, as part of its stakeholder process, five locations for the Badger Coulee interconnection point with Applicants’ Project. These are, in addition to the proposed Briggs Road Substation site near Holmen:

1. A site northeast of Arcadia (“Site A”);
2. A site east of Highway 93, at the juncture of the Arcadia Route and the Ettrick Connector (“Site B”);
3. A site southwest of Ettrick (“Site C”); and
4. A site east of Galesville (“Site D”).

(Direct-ATC-Holtz-3-4; Ex.-ATC-Holtz-1).

Based on the extensive routing and siting work ATC has done thus far, ATC prefers either Site A, Site B, or Site C for the Badger Coulee interconnection point. The reasons for these preferences are twofold. First, these sites are termination points for routes that could be co-located on existing DPC and NSPW transmission lines and on which a line could be constructed with less impact on landowners and the environment. Secondly, these sites would avoid a whole host of difficult, if not intractable, problems in approaching the proposed Briggs Road Substation from the east. As noted above, these problems include the unavailability of an overhead route through Fort McCoy on Interstate 90 and the natural barriers and extensive development a transmission line route would encounter in proceeding from Interstate 90 into La Crosse.

(Direct-ATC-Holtz-4; Surrebuttal-ATC-Holtz-3, 5-6).

D. ATC Prefers These Interconnection Points Despite Applicants' Objections.

1. Hillstrom's "General Impact Summary."

Applicants' witness Tom Hillstrom attempted to diminish ATC's preferences by presenting a one-page, high-level evaluation of seven routes from Interstate 90 to Applicant's Project. (*See* Ex.-Applicants-Hillstrom-46). This document is simply a tabulation of publicly available data about factors like length of route, existing corridors, natural features, and residences. It does not address critical problems found along those corridors, like the Fort McCoy flight path, that are only revealed in the type of in-depth routing evaluation that ATC has undertaken. Mr. Hillstrom's basic premise is that the routes connecting to the proposed Briggs Road Substation from the south are "shorter and should be less expensive" (Rebuttal-Applicants-Hillstrom-15). Mr. Hillstrom's assessment is, at best, incomplete. As Mr. Holtz, who has considerable experience in routing Wisconsin 345 kV projects, explained, "distance is just one of

the factors that drive costs when constructing new high-voltage transmission lines.” (Surrebuttal-ATC-Holtz-5). The mere fact that a route may appear shorter on a map does not necessarily mean that it is therefore less expensive or a more desirable choice.

Mr. Hillstrom also asserts that his numerical list of impacts “does not definitively show” that the northern routes will have less impact than the southern routes. (Rebuttal-Applicants-Hillstrom-15-16). Such number-counting is, however, no substitute for specific considerations like terrain, number of angle structures, and detailed input from public officials and property owners. Mr. Holtz has been involved in the evaluation of these factors in this area for two years, and his considered opinion on this subject is entitled to more weight than Mr. Hillstrom’s one-page list.

2. King’s Supplemental Planning Testimony.

Applicants also attempted to refute ATC’s preferences for interconnection points by submitting supplemental planning testimony from Amanda King. This testimony is quite general and conclusory. It purported to show that the electrical performance of the routes with ATC’s preferred interconnection points would be inferior to the Applicants’ preferred route terminating at the proposed Briggs Road Substation. (Supplemental Direct-Applicants-King-2-4).

However, this testimony is based on the fundamental misconception that ATC is proposing substations with 345 kV to 161 kV step-down transformers at Arcadia or Galesville. Stepping down the voltage at these locations would necessarily result in longer 161 kV segments, which would in turn affect the electrical performance of the alternative. In fact, as noted above, ATC’s preferred interconnection points are not based on step-down transformation at these locations and could be accommodated with a switching station at Site A, B, or C along the alternative routes. As Mr. Burmester testified, ATC is not proposing to move the Applicant’s

step-down location or to lengthen the 161 kV segments of the Project. (Surrebuttal-ATC-Burmester-2). It is concerned solely with an appropriate 345 kV interconnection point between the Applicant's Project and its Badger Coulee Project.

3. Kline's Rebuttal Testimony Regarding Regional Planning.

Applicants' witness Daniel Kline testified that ATC's preferred interconnection points were "premature and inconsistent with . . . regional planning efforts." (Rebuttal-Applicants-Kline-2). It is difficult to understand how ATC's preferences are potentially premature because the Commission will select a route for the Hampton-La Crosse Project in this proceeding. Applicants prefer the Q1-Highway 35 route, which, if selected, would preclude ATC's preferred interconnection points. ATC's evidence in this proceeding is timely and relevant to the Commission's deliberations.

Nor are ATC's preferred interconnection points inconsistent with regional planning efforts. Mr. Kline refers to several general planning reports in support of his assertion (*e.g.*, the WIRES Report, the CapX2020 Vision Study, and the Minnesota RES Update Study). (Rebuttal-Applicants-Kline-6-8). However, he carefully avoids asserting that these reports identify a specific substation location in the La Crosse area, much less the proposed Briggs Road Substation. The 2008 MTEP identified a step-down transformer at a North La Crosse substation (not specifically Briggs Road), and the WWTRS simply assumed this same designation.

The important point is that these termination points are merely planning-level designations, and planning-level designations change based on a number of factors, including the ability to effectively construct transmission facilities to the planned point of interconnection. They are not fixed, firm configurations of actual projects. (Surrebuttal-ATC-Burmester-4). Routes and endpoints of projects designated in transmission plans change for many reasons, and

the Hampton-La Crosse and Badger Coulee Projects will be no exception. Mr. Kline conceded in response to a question from PSC Staff Counsel John Lorence that “it is certainly possible for the interconnection point to be moved” from the proposed Briggs Road Substation. (Tr. 158, ll. 19-22).

Thus, the fact that the 2011 MTEP currently refers to a Briggs Road Substation is clearly not conclusive and determinative. As Mr. Burmester noted, the MISO Transmission Owners’ Agreement specifically provides that approval of the MTEP by the MISO Board is subject to required approvals by state authorities, including the CPCN routing and siting authority of this Commission. (Surrebuttal-ATC-Burmester-4). MISO Planning Director Jeffrey Webb readily conceded this point; he also agreed that MISO had no routing and siting authority over the Project proposed in this proceeding. (Direct-MISO-Webb-5; Tr. 190, ll. 3-13).

Moreover, as both Mr. Burmester and Mr. Webb also testified, the MISO Transmission Owners’ Agreement recognizes that the final design of projects may vary from plans in order to accommodate changing conditions. (Surrebuttal-ATC-Burmester-4; Tr. 190, ll. 14-18).

Finally, the FERC-approved Interconnection Agreement to which MISO, ATC, and NSPW are parties explicitly provides that the interconnection point between the Applicants’ Project and the Badger Coulee Project will be mutually agreed upon by the transmission owners. (Surrebuttal-ATC-Burmester-3). It will not be unilaterally determined by MISO or NSPW.

The record thus shows that the standard practice is as follows:

1. Transmission projects are described generally and approved for MISO planning and tariff purposes in the MTEP;
2. Actual project design may vary if necessary due to changing circumstances;

3. For projects interconnecting between two transmission owners, the transmission owners mutually agree upon the new interconnection point in accordance with the Interconnection Agreement between them; and

4. The Commission determines the need for and the routing and siting of transmission facilities subject to its jurisdiction (including the location of transformative substations and switching stations).

Therefore, previous regional planning activities do not cast the design of this Project in stone. They are provisional, not final, and are not binding on this Commission. The Commission should independently consider and give weight to ATC's preferred interconnection points between this Project and the Badger Coulee Project.

V. CONCLUSION.

The Applicants have demonstrated the need for an additional 345 kV link between Minnesota and Wisconsin. Such a line would provide significant reliability, usage, and service benefits to Wisconsin customers and these benefits are reasonable in relation to the project cost, as provided by Wis. Stat. § 196.491(3)(d)3t.

The Arcadia Route or the Arcadia Route with the Ettrick Connector is the preferable path for this line, when taking into consideration interconnection points with the Badger Coulee Project that avoid routing difficulties near La Crosse and instead offer the prospect of co-locating with existing transmission lines while minimizing environmental and landowner impacts.

Dated this 30th day of March, 2012.

Respectfully submitted,

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