

Statement of the Berry Corridor Landowners Regarding the Preliminary Routes of the Cardinal-North Madison High Voltage Transmission Line

Submitted by the
Berry Corridor Landowners

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1. Introduction. The landscape changes dramatically over the short distance between the existing ATC 138 kV transmission corridor in the Town of Springfield and the Springfield-Berry town line a mile to the west. From Airport Road north the existing power line runs through a flat, open, linear landscape. A mile to the west the land falls off sharply to Enchanted Valley and the Brewery Creek valley, with steep bluffs, ravines, wetlands, conservation reserves, and heavily wooded terrain.

The transmission planners of a previous generation recognized the advantages of placing the transmission line in its current location. The Springfield transmission corridor has served its purpose well and has not impeded agricultural production or carefully planned development in the immediate area. Meanwhile, as the need for more power transmission in Wisconsin has increased, with commendable foresight the Legislature has acted to promote sound land use policy, avoid conflicts, and protect the environment by establishing that:

In the siting of new electric transmission facilities, including high-voltage transmission lines...**it is the policy of this state that, to the greatest extent feasible** that is consistent with economic and engineering considerations, reliability of the electric system, and protection of the environment, **the following corridors should be utilized in the following order of priority:**

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

Section 1.12(6), Wis. Stats.

ATC now seeks as part of its Badger-Coulee transmission project to establish a 345 kV connection between the Cardinal substation on Highway 14 and the North Madison substation near DeForest. The existing Springfield transmission corridor is the logical north-south path for the 345 kV line. Recently, ATC suggested an alternate transmission path that would slash a new corridor running north-south through the Town of Berry, just west of the Springfield-Berry town line, and necessitate connection lines that would take the power first west and then back east.

The landowners and citizens who submit this statement (“Berry Corridor Landowners”) reside near this proposed new corridor. It is our position that consistent with state statute, ATC should utilize the existing ATC utility corridor in the Town of Springfield in siting the proposed 345 kV line. We strongly oppose establishment of a new corridor, which the legislature has identified as a path of last resort.

2. ATC Must Establish the Necessity for the 345 kV Line. ATC is required by law to obtain a certificate of public convenience and necessity before proceeding with construction of the proposed 345 kV line. In submitting this statement, the Berry Corridor Landowners are not conceding that ATC can establish the need for the 345 kV line, regardless of where it is located.

3. Reservation of Rights. This statement addresses only the topic of where the line should be located if the Public Service Commission determines that it is necessary. As a group and individually we reserve the right to submit additional statements regarding the route, the necessity for the transmission line, its design and compliance with safety standards, and all other related subjects.

4. Description of Existing Corridor and Berry Corridor

The existing ATC corridor goes north from Highway 14 on Segments A143, A142, and A140. Most of this north-south route lies in the Town of Springfield. The distance from Highway 14 to the point in the Town of Dane where the line heads east is approximately 10 miles. This distance can be shortened somewhat, and four right-angle turns eliminated, by using proposed connecting Segment N640a to avoid the jog in the line on Koch and Vosen roads (this short correction in the existing corridor is referred to in this Statement as the Vosen Bypass).

The alternative western route, primarily in the Town of Berry, would follow Segments N1280 and N1320, together with one of various proposed east-west connectors such as N1360 or N1840. The distance of this route from Highway 14 to the same point in the Town of Dane would be approximately 13 miles. It is this route that the Berry Corridor Landowners strongly oppose.

5. Critical Legal Considerations.

A. One of the purposes of the Badger-Coulee project is to increase the transmission import capability into Wisconsin:

- “ATC's studies indicate that the Badger Coulee Transmission Line Project is a multi-benefit project that would deliver benefits to Wisconsin and the Midwest region in three important ways:

- **Better enable Wisconsin to import power”**

Source: <http://www.atc-projects.com/BadgerCoulee.shtml>

- “The Badger Coulee Transmission Line Project would add an additional 345-kV connection to Wisconsin, which would **increase the ability of utilities in the state to import high-quality wind and other lower-cost power** from throughout the region and sell power to higher-cost regions during some hours.”

Source: Fact sheet on ATC web site titled INTERSTATE TRANSMISSION CONNECTIONS PROVIDE BETTER ACCESS TO LOWER-COST POWER, RENEWABLE ENERGY.

When a line is intended to increase import capacity, state law imposes the highest possible priority on (a) using existing corridors and (b) minimizing environmental impacts:

...[T]he [public service] commission shall approve an application ... for a certificate of public convenience and necessity only if the commission determines all of the following:

3r. For a high-voltage transmission line that is proposed to increase the transmission import capability into this state, **existing rights-of-way are used to the extent practicable and the routing and design of the high-voltage transmission line minimizes environmental impacts** in a manner that is consistent with achieving reasonable electric rates.

Section 196.491(3)(d)3r, Wis. Stats. By confirming the priority of using existing routes in two statutes—Section 1.12 (Wisconsin energy policy) and Section 196 (PSC approvals of transmission lines)— the legislature has stated in the clearest terms possible that ATC and the PSC must propose and approve the use of existing corridors whenever possible. Such routing is possible and practical in the case of the Cardinal to North Madison line. It is also the most environmentally responsible choice, in accord with the legislative mandate that importation lines must minimize environmental impacts.

B. Environmental factors are given high priority by statute:

...[T]he [public service] commission shall approve an application ... for a certificate of public convenience and necessity only if the commission determines all of the following:

The proposed facility will not have undue adverse impact on other environmental values such as, but not limited to, ecological balance, public health and welfare, historic sites, geological formations, the aesthetics of land and water and recreational use.

Section 196.491(3)(d) 4, Wis. Stats. Creating a new corridor in Berry would have an undue adverse impact on environmental values, especially in comparison to use of the existing corridor in Springfield. See Paragraphs 7 and 8.

6. Use of the Existing Springfield Corridor is Consistent with Cost and Engineering Considerations. Using the current ATC transmission corridor for the north-south path to the Cardinal substation does not present any unusual cost problems or engineering considerations.

- The North Madison substation is northeast of the Cardinal substation. The existing Springfield transmission corridor is 1.5 miles further to the east than the proposed new Berry corridor. Thus the existing Springfield corridor is necessarily a minimum of 3 miles shorter in length than the Berry route. Because each mile of transmission line is expensive, this represents an immediate cost advantage to the existing corridor.
- ATC's goal in the western Dane County portion of Badger-Coulee is to connect the Cardinal and North Madison substations. If there were no priority corridors between these two points—no existing utility corridors, or secondarily no highway corridors—then naturally it would be necessary to consider new corridors. When there is an existing corridor, as is in fact the case, we believe that the legislature intended that such corridor be used.
- Sending a high voltage line around a corner involves added expense, requiring either additional towers or more robust towers, or both. If the existing Springfield corridor is used, with a few improvements to eliminate anomalous short kinks in the line (in particular by using N640a, the Vosen Bypass, to straighten the line), it will be a straight shot north-south to the point where the PSC determines the line should go east to the North Madison substation. By contrast, a route west to the Town of Berry and then back would involve at least four additional right angle turns.

- As we understand it, ATC would place the existing 138 kV transmission line on the new towers, at least in the restricted stretches of the corridor. This would result in the need for towers capable of carrying both lines (double-circuiting). Typically double-circuit towers are more expensive than single-circuit towers. However, the incremental costs should properly be considered as a necessary function of following the statutory mandate to use the existing corridor, and as an investment in improving the 138 kV line, which was constructed in the 1970s.
 - Note that when the Legislature mandated the use of “existing utility corridors” (1.12(6), Stats.) and “existing rights-of-way” (196.491(3)(d) 3r), we may safely assume that the Legislature was fully aware that all existing corridors have existing infrastructure that must be accommodated, and that there is always a cost to making this accommodation. In our view, given the unambiguous statutory prioritization of the use of existing corridors, any additional costs associated with the accommodation of existing utilities should not be a basis for rejecting the use of these corridors for siting new transmission lines. To reject existing corridors because they contain existing utilities would gut the essence of the prioritizing statutes.
 - It is our understanding that some elements of the existing 138 kV line (transformers, poles) could be reused or salvaged.
- According to the Public Service Commission, double-circuiting an existing line offers “environmental advantages.” See “Environmental Impacts of Transmission Lines,” PSC Publication Electric 10, (08/10), p. 3. The environmental benefits of double-circuiting cited by the PSC are:
 - Little or no additional ROW clearing, if the new line can be placed in the center of an existing ROW
 - Land use patterns may have already adapted to the existing ROW
 - Electric and magnetic fields (EMF) may be reduced because new structure designs place line conductors closer together resulting in lower EMF. According to the PSC, the fields created by each of the three conductors interfere with each other and produce a reduced total magnetic field. Magnetic fields generated by double-circuit lines are less than those generated by single-circuit lines because the magnetic fields interact and produce a lower total magnetic field. In addition, double circuit poles are often taller resulting in less of a magnetic field at ground level.

It is significant that double-circuiting offers environmental advantages, given the special prioritization that the legislature has given to environmental factors if a project serves to import power from other states (Section 196.491(3)(d) 3r, Wis.

Stats.). The point regarding reduced electric and magnetic fields is extremely important, given that the new transmission line, if approved, will go through settled areas with agricultural and residential occupants, regardless of whether it is in Berry or Springfield. Double-circuiting in Springfield would mitigate the EMF problems associated with the current 138 kV line, and avoid the introduction into the environment of a second “dirty” single-circuit line.

- In addition to running the 138 kV line on new, state-of-the-art, virtually indestructible, low maintenance towers with a lengthy projected design life, if ATC proposes the Vosen Bypass (N640a), it could also remove the 138 kV line from the proximity to the Bridle Ridge subdivision, and avoid the possible need to remove trees from the small woodlot on Vosen Road.
- Using the same corridor for the two high voltage lines (the 138 kV and the 345 kV) would result in cost savings for corridor maintenance and facilities maintenance over the service life of the lines.
- Double-circuiting does not create any significant risk to system reliability. Double-circuiting is commonly approved by the PSC; for example, the Alma-La Crosse 345 kV route that the PSC approved on May 30, 2012, will follow existing corridors and double-circuit an existing 161 kV line (in some locations an existing 69 kV line) with the new 345 kV line.
 - The risk of a natural disaster that could affect a well designed and constructed modern transmission line is remote, and if such occurred it would likely affect both the new line and other older lines in close geographic proximity. A terrorist attack could target two separate routes as easily as a single route; and would in any event much more likely target a substation or power plant.
- The principal corridor is already owned by ATC, either directly or through easements and rights-of-way. Although new or supplemental easements would be needed on the existing route, land acquisition costs would be less than for a new and longer corridor.
- Most engineering problems associated with routing a transmission line have already been resolved when an existing cleared corridor is available. Nonetheless, using the existing Springfield corridor doubtless would require the ATC engineering team to find solutions to a handful of routine routing challenges. These types of challenges are unavoidable for any project in a settled area such as Dane County—and would be an equal or greater factor if the Berry corridor were chosen. ATC is proving on the Madison Beltline and other routes that it can successfully meet engineering challenges. On the Springfield route, proceeding with the Vosen Bypass would appear to solve most issues.

- Based on ATC information sheets that we have received in the mail over the years, the Springfield route has been on the drawing board for the 345 kV line since at least 2005. If this corridor had any fundamental demerits from an engineering standpoint, alternate routes would have been proposed and discussed from the start. This has always been the sole logical route for a new line.

7. Use of the Existing Springfield Corridor Will Have No Impact on Statutorily-Protected Environmental Features

The Springfield corridor was long ago cleared of trees. It does not pass through any wetlands. It does not infringe on conservation reserves or recreational areas. The adverse aesthetic impact of a transmission line has already occurred; any further impacts would be negligible and incremental only.

8. Establishing a New Corridor in the Town of Berry would Adversely Impact Statutorily-Protected Environmental Features

A. Geological. Most of the preliminary Berry Corridor is located in a geologic zone that features unique landforms that combine glaciated and driftless features. This zone, just a few miles wide, is west of the end moraines (terminal moraines) and east of the final point of advance of the Wisconsin glaciation. The glaciers were here; they deposited fieldstones, soils, gravel, and other features common to glaciated Wisconsin; they lightly sculpted the landscape; yet the ice sheet was thin and the ancient hill-and-valley land forms, bedrock outcrops, and bluffs characteristic of the unglaciated Driftless Area remained intact and visible. Because of its exceptional transition-zone characteristics, this area has great educational and scenic value, and should continue to be preserved. There is also the potential for including the extensive local trail system and preserved viewsheds as part of the new national Cross Plains Ice Age unit, just south of Highway 14. Creating a major new transmission corridor would do irreparable damage to the geologic landscape and foreclose many educational and recreational opportunities.

B. Wetlands and water resources. The preliminary transmission route through Berry would cross highly sensitive wetlands and waterways, notably the wetland just north of Albe Road (labeled Hill Point Road on ATC maps—the name was changed to Albe in 2010), and Brewery Creek. The route would also run close to at least two significant ponds (one on Enchanted Valley Road; and one just south of Albe Road, near the wetland and Brewery Creek). The construction, maintenance, and presence of this new corridor would have a detrimental impact on the wildlife and plant communities that depend on these wetlands, ponds, and waterways.

The wetland and pond at Albe Road host a significant number and variety of migratory and year-round birds, including blue herons, sandhill cranes, pheasants, Canada geese, songbirds such as redwing blackbirds and many others, and an

exceptional population of amphibians. Also present in abundance are wetland plants that clean and filter water. The wetland is fed by springs and is at the headwaters of Brewery Creek, which empties into Black Earth Creek a mile downstream. Siting the transmission line through this sensitive habitat would be environmentally destructive:

- Clear-cutting through the wetland would remove the protective, shading cover of swamp trees and shrubs, destroying the nesting sites of water birds, songbirds, and amphibians. Removing the trees would risk raising the water temperature of Brewery Creek and in turn diminishing the water quality in Black Earth Creek, a Class 1 coldwater fishery that is “Recognized as a premier trout destination and regionally significant and unique resource” according to the DNR. Development in this part of Dane County is restricted because of the thermally-sensitive nature of the water resources.
- The lines themselves also pose collision obstacles for sandhill cranes, waterfowl, and other large water birds, according to the PSC. (See “Environmental Impacts of Transmission Lines,” PSC Publication Electric 10, (08/10))
- Disturbance and damage to cattails and wetland flora, removal of shading shrubs and trees, and erosion from clear-cutting on the nearby bluffs, which drain directly into the waterway, will foul the waters.
- The construction process of clearing vegetation and installing the poles and wires may permanently alter this sensitive wetland and waterway. According to the PSC, “Disturbed wetland soils are not easily repaired. Severe soil disturbances may permanently alter wetland hydrology.”

C. Conservation and recreation reserves. A substantial number of the properties along the preliminary Berry Corridor feature acreage that is being improved and preserved for future generations through conservation efforts. This includes enrollment in the federal Conservation Reserve Program; conservation easements; private conservation efforts; and wetland improvements. Native grasses and forbs have been re-established, and erosion and soil loss reduced. A new transmission corridor over these conservation acres would compromise the work and investment that has gone into them. Invasive species would be introduced, and the ability to conduct controlled burns would be limited.

D. Woodland destruction. A significant portion of the preliminary Berry Corridor is wooded. If the transmission line is built, the trees will need to be clear-cut in a 150-foot wide swath, and that swath will need to be kept clear of trees for the service life of the transmission line. In some cases the trees that would be cut are part of large, continuous forest tracts that have priority preservation status. In other

cases the imperiled trees are on fence lines that provide wildlife shelter and are an important feature of the rural landscape. Based on our initial analysis, the portion of preliminary north-south segments N1280 and N1320 that are in the town of Berry would traverse wooded terrain along approximately 15,000 linear feet. East-west connector segment N1840, near Highway K, would slash along 4500 linear feet of woods. East-west connector N1360, crossing Rocky Dell Road, would rip through trees for 6500 feet. Assuming a 150-foot wide swath, these segments alone (only a portion of the possible total of the western corridor) would require a clear-cut, treeless area of 83 acres. On its face this is environmentally reckless and irresponsible, given the availability of an existing cleared transmission corridor, and in fact would be directly contrary to the public policy of the State of Wisconsin. Section 1.12, Stats., states as follows:

Afforestation. It is the goal of the state to ensure a future supply of wood fuel and reduce atmospheric carbon dioxide by **increasing the forested areas of the state.**

Establishment of a new Berry corridor would be approval of **deforestation** and would **decrease** the forested areas of the states—contrary to state policy. It would also adversely affect adjacent wooded acreage. In “Environmental Impacts of Transmission Lines,” PSC Publication Electric 10, (08/10), the Public Service Commission has cited the following problems with placing transmission lines in wooded areas:

- The menace of the introduction and encouragement of oak wilt, a deadly fungus. This is a particular problem in the Berry Corridor because of the predominance of red oak and black oak in our local woods; these are the tree species most vulnerable to oak wilt.
- Alteration of forest ecology through the introduction and promotion of invasive species from mass clear cuttings. Many of the landowners along the preliminary Berry Corridor are already fighting invasive species, especially along forest edges. The transmission line clearing would undo these efforts and make future invasives control more difficult.
- Forest fragmentation. Smaller, fragmented tracts are less healthy than uninterrupted forests.

We also note that a substantial number of properties along the preliminary Berry Corridor feature acreage that is enrolled under the state’s Managed Forest Law. Based on a preliminary review of MFL enrollment, over 200 MFL acres in eastern Berry would be impacted, directly or indirectly, and many more adjacent acres on the western edge of Springfield would be imperiled as well.

E. Indian Lake County Park, the Ice Age Trail, and Berry's Scenic Roads.

Dane County's decision to create a county park at Indian Lake, and the establishment of the national Ice Age Trail in the same area, are indicative of the exceptional natural beauty of the town of Berry. The residents of Berry share this natural beauty with many visitors, including park users and hikers, and also those who enjoy "Sunday drives" and bicycle rides in Berry. Enchanted Valley Road, Indian Trail, and Whippoorwill Road are among the scenic favorites. Establishing a transmission corridor in close proximity to these features—Indian Lake park, the Ice Age Trail, and the scenic roads of Berry—would detract from the public's investment and enjoyment of this great resource.

9. Approval of new corridors when existing corridors are available would destabilize the real estate market.

The transmission corridor in Springfield has been present since at least the 1970s. Large-scale agriculture predominates in the area and is compatible with the presence of transmission lines. Land developers, town officials, and subdivision home purchasers in Springfield have taken the corridor into account in making land use and real estate decisions. To the extent a transmission line affects land values, presumably the real estate market has already factored in the presence of the corridor. Meanwhile, in the area of the preliminary Berry Corridor, land decisions have been driven by the pristine nature of the area. For most properties along the Berry Corridor, the views of the landscape, including bluffs, valleys, ponds, and wetlands, play a predominant role in land value and use.

No landowner is immune from the possibility of utilities or highways being routed on or near the property. However, land use, development, purchase, and property improvement decisions are made in reliance on reasonable expectations. The statutes prioritizing the use of existing corridors solidify the expectations of landowners adjacent to or crossed by transmission lines (continued or expanded use is likely) and also of landowners within a few miles, who rightly assume that if there is a need to run additional transmission lines, those lines will follow the existing corridors. If those reasonable expectations are thrown into disarray by proposals that ignore or disfavor shorter existing routes, many properties throughout the state will be haunted by the possibility that a transmission line could be proposed in their immediate vicinity—despite the presence of established corridors nearby. This would have a destabilizing effect on the real estate market, and is presumably a critical underlying purpose of the legislative favor for using existing corridors.

10. Recent PSC decisions require the use of existing corridors

Recent PSC decisions have required the use of corridor sharing. In the Rockdale decision in 2009, the PSC rejected routes that would have skirted the Madison metropolitan area

by establishing new corridors cutting across the rural landscape. Instead, the PSC approved a route that emphasized shared use of existing utility and highway corridors:

Corridor sharing also helps avoid unreasonable impacts on land use and development plans because it reduces the amount of new ROW, concentrates linear land uses, controls the number of new corridors that fragment the landscape, and creates a smaller, incremental impact. The corridor sharing of ATC's proposed routes not only meets the standards of the Siting Priority Laws but, as the EIS explains, is one of the most useful methods of minimizing both environmental and socioeconomic impacts of a transmission line.

In May 2012, the PSC reviewed nine proposed routes for the Alma-La Crosse 345 kV line. The PSC noted with approval that the proposed routes mostly followed existing high-voltage transmission corridors. Final Decision, p. 8. The PSC selected one of the routes, and found that the “approved transmission line route utilizes priority siting corridors listed in Wis.Stat. sec. 1.12(6) to the greatest extent feasible, consistent with economic and engineering considerations, reliability of the electric system, and protection of the environment.” Final Decision, p. 5. The PSC cited the fact that the selected route “had the fewest new woodland acres affected,” and scored well with respect to wetland impacts, total length, acres of new right-of-way, and stream crossings, together with other factors including construction cost. The most interesting aspect of the Alma-La Crosse decision is that the Wisconsin Department of Transportation opposed the sharing of a state highway corridor with the new transmission line, on the grounds that the line would be detrimental to the scenic enjoyment of the highway, which runs for a stretch along the Mississippi River. While acknowledging the importance of aesthetic concerns, the PSC held that the “statutory preference for existing ROW” was the key factor in choosing the route, and therefore required placement of the new line in the highway corridor, despite the DOT’s concerns. Final Decision, p. 22.

In the present case, ATC should follow the guidance of the Rockdale and Alma-La Crosse decisions by proposing routes that maximize use of existing priority corridors, and avoid proposing disfavored new corridors.

11. Conclusion. The Berry Corridor Landowners request that ATC not include the preliminary western corridor (Segments N1280 and N1320, and related connectors, in Berry and adjacent towns) in its application to the Wisconsin PSC. ATC should follow the statutory mandate to prioritize the use of existing corridors (in this case the existing ATC 138 kV route through Springfield and adjacent towns). Using the existing corridor will not cause any environmental damage, will require minimal corridor maintenance, will reduce EMF concerns, and will present merely incremental impacts to nearby residents.