

From: Bobbi Peckarsky
To: comments@cardinalhickorycreekeis.us
Cc: [Barbara Borns](#); [Anderson Richard](#); [Dave Lucey](#); [Steve Born](#); [Briana Burns](#); [Deb Weitzel](#)
Subject: Scoping comments from BECWA
Date: Tuesday, December 20, 2016 5:55:35 PM
Attachments: [BECWA scoping comments ATC.pdf](#)

Please acknowledge by return email the receipt of these scoping comments for the Cardinal Hickory Creek EIS scoping process compiled by Board members of the Black Earth Creek Watershed Association (BECWA).

Thank you.

Bobbi Peckarsky (Vice President)

--

Bobbi Peckarsky

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Barbara Borns (Secretary)
David Lucey, Treasurer

Steve Born
Briana Burns
Deb Weitzel
Bobbi Peckarsky, Vice-President

(Signing on behalf of other signatories)

**Scoping Letter from the Black Earth Creek Watershed Association (BECWA)
Regarding the Cardinal-Hickory Creek Environmental Impact Statement
(emailed to comments@CardinalHickoryCreekEIS.us on Dec. 20, 2016)**

The Goals of the Black Earth Creek Watershed Association (BECWA) are to:

- Protect, conserve, support and advocate for the wise, long term management of the physical, environmental, cultural and historic resources that constitute the heritage and future of the watershed.
- Foster and encourage citizen and locally-based stewardship among the many members of the Watershed community
- Provide a forum for civilized discussion of issues and problems in the watershed

Guided by our goals, BECWA would encourage consideration of the following possible impacts of the proposed ATC Cardinal-Hickory Creek transmission line on the Black Earth Creek (BEC) watershed. Given the location of the Cardinal substation, there are no alternative routes for the transmission line that avoid the BEC corridor. It is imperative that there be a full consideration of environmental and economic impacts in the decision-making process. Therefore, we raise the following concerns to be addressed in the EIS:

- Black Earth Creek is recognized as an important environmental asset by the State of Wisconsin, which selected it as a “Priority Watershed” in the 1990’s investing over a million dollars in stream improvements.
- Black Earth Creek is an important recreational asset to the area—bringing visitors to fish, bird watch, walk, hike, bike along the creek. These visitors enhance the economic vitality of the community.
- One of the reasons visitors come to this watershed is because of the aesthetics—the beauty of the place—the connection to open spaces, clean waters, freedom from excessive noise and visual pollution. The proposed transmission line would blight the scenic and environmental values of our watershed.
- Educators from elementary, middle and high school and university classrooms use Black Earth Creek as an excellent local source for experiential learning and an example of a low-impact watershed with strong, citizen-based land stewardship.
- Individual homeowners in the watershed are concerned about effects of intrusion on their properties, loss of privacy and diminished land values.
- Many residents argue that there is no necessity for this line because of flat or lower power usage. Rather than bringing “clean energy” and other not so clean sources of energy to

Wisconsin from Iowa, we would advocate for development of homegrown, small-scale clean energy sources.

- The Public Service Commission should complete analysis of whether this new transmission line is needed, including viable, economical alternatives.
- If need for the transmission line can be demonstrated, existing corridors should be prioritized (according to Wisconsin law) to minimize impact on the Black Earth Creek watershed and landowners who live in the watershed.

From: [Stephanie Enloe](mailto:Stephanie.Enloe)
To: comments@cardinalhickorycreekeis.us
Subject: EIS Comments from CFRA
Date: Friday, January 06, 2017 5:48:11 PM
Attachments: [CHC EIS Comments CFRA Jan 2017.docx](#)

Good afternoon,

I hope this message finds you well. Please find attach the Center for Rural Affairs' comments on the Cardinal Hickory Creek EIS. Thank you for your work on project.

Sincerely,
Stephanie

--

Stephanie Enloe | Policy Program Associate; Rural Caucus Coordinator
Center for Rural Affairs
stephaniee@cfra.org | cfra.org
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Dyersville, IA 52040
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January 6, 2017

SWCA Environmental Consultants
Attn: Cardinal-Hickory Creek EIS
200 Bursca Drive
Suite 207
Bridgeville, PA 15017

To whom it may concern:

The Center for Rural Affairs is a non-governmental, not-for-profit organization that has been working to support rural Americans for over 40 years. Among other issues, we advocate for responsible expansion of renewable energy technologies that benefit rural areas. We recognize transmission upgrades are necessary to further develop clean energy generation as well as to bolster the reliable grid rural communities depend upon, and encourage developers to site and construct lines in such a way as to limit localized environmental and cultural impacts.

In 2011, the Midcontinent Independent System Operator (MISO) analyzed and approved a portfolio of seventeen transmission projects they determined will increase grid reliability and efficiency, increase access to wind energy resources, and reduce long-term costs across the MISO footprint. The Cardinal-Hickory Creek (CHC) line is one component of this so-called Multi-Value Project (MVP) portfolio. Analyses show the line will provide considerable environmental and rural economic benefits by supporting wind energy use in the region.

As of mid-2016, 1,031 MW of wind in the MISO interconnection queue listed CHC as necessary infrastructure in their General Interconnection Agreements. Wind development provides considerable economic benefits within Iowa, and indeed throughout the MISO footprint. By 2030, the wind industry will provide an estimated \$136 million in annual property tax revenue, \$55 million in annual land lease payments, and \$3.6 billion in electricity bill savings for Iowans. Many of these benefits accrue in rural areas struggling to maintain economic opportunity and amenities.

Wind development also translates to significant emissions and water savings. Increased use of renewable energy leads to decreased dependence on fossil fuel resources responsible for harmful emissions including carbon dioxide, methane, sulfur dioxide, particulates, and others. MISO's *Multi Value Project Results and Analysis* report estimates that renewable energy enabled by the MVP portfolio will save between 8.3 and 17.8 million tons of carbon dioxide each year. Additionally, in 2015, wind energy replaced enough fossil fuel energy to save ~73 billion gallons of water. Wind energy enabled by CHC will result in further conservation of water resources.

The Center applauds the decision to prepare an Environmental Impact Statement for the CHC Mississippi river crossing. We believe the study will provide the information necessary to limit environmental impacts as much as possible. We encourage the Rural Utility Service and SWCA Environmental Consultants to include analysis on broader environmental and public health benefits of the emissions and water savings resulting from renewable energy enabled by CHC. This analysis should consider climate benefits resulting from existing and potential renewable energy projects associated with the line, as outlined in the *Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews*, released in August, 2016.

Thank you for reviewing our comments and for your work to prepare an EIS for CHC. Please do not hesitate to contact us with questions or for additional feedback.

Respectfully Submitted,

Stephanie Enloe
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Stephaniee@cfra.org

From: Rachel Granneman
To: dennis.rankin@wdc.usda.gov; comments@CardinalHickoryCreekEIS.us
Subject: RE: Cardinal-Hickory Creek Transmission Line -- Driftless Area Land Conservancy's Scoping Comments on the Environmental Impact Statement
Date: Friday, January 06, 2017 6:04:31 PM
Attachments: [CHC EIS Scoping Agricultural Businesses Joinder Letter 1.6.17.pdf](#)

Good afternoon,

Please find attached a letter from several agriculturally-related businesses in the Driftless Area that are signing on and supporting the scoping comments on the Cardinal-Hickory Creek transmission line filed by the Driftless Area Land Conservancy.

Thank you,

Rachel Granneman

Staff Attorney
Environmental Law & Policy Center
35 E. Wacker, Suite 1600
Chicago, IL 60601
(312) 795-3737

January 6, 2017

Dennis Rankin
Environmental Protection Specialist
U.S. Department of Agriculture, Rural Utilities Service
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Room 2244, Stop 1571
Washington, DC 20250-1571
dennis.rankin@wdc.usda.gov

SWCA Environmental Consultants
Attn: Cardinal-Hickory Creek EIS
200 Bursca Dr. Suite 207
Bridgeville, PA 15017
comments@CardinalHickoryCreekEIS.us

Re: Cardinal-Hickory Creek Transmission Line – EIS Scoping Comments

Dear Mr. Rankin and SWCA Environmental Consultants,

We are farmers and agriculturally-related businesses located in Iowa County, Wisconsin. **We join and support the scoping comments filed by the Driftless Area Land Conservancy on the proposed Cardinal-Hickory Creek transmission line.**

We are concerned about the negative impacts that the proposed large high-voltage Cardinal-Hickory Creek transmission line and towers would have on our businesses, on the environment and scenic landscapes, and on the overall natural and cultural resources of the Driftless Area.

The Rural Utilities Service should evaluate the adverse direct, indirect, and cumulative environmental impacts on our and other dairy farms, organic farms, and other farm-related businesses in the Driftless Area. Thank you for your consideration.

Sincerely,

Dick and Kim Cates
Cates Family Farm
5992 County Road T
Spring Green, WI 53588
Catesfamilyfarm.com

Paul Gaynor
Green Spirit Farm LLC
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Dodgeville, WI 53533
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5079 County Road Z
Spring Green, WI 53588
Sevensseedsorganicfarm.com

From: Howard Learner
To: dennis.rankin@wdc.usda.gov; comments@CardinalHickoryCreekEIS.us
Cc: [Dave Clutter \(dave@driфтlessconservancy.org\)](mailto:Dave.Clutter@driфтlessconservancy.org); [Scott Strand](#); [Rachel Granneman](#); [Howard Learner](#)
Subject: RE: Cardinal-Hickory Creek Transmission Line -- Driftless Area Land Conservancy's Scoping Comments on the Environmental Impact Statement
Date: Friday, January 06, 2017 6:06:31 PM
Attachments: [DALC.RUS Scoping Comments on Proposed Transmission Line.Jan 6.2017.pdf](#)

Dear Mr. Rankin and SWCA Environmental Consultants:

Please see the attached pdf version of the Driftless Area Land Conservancy's Comments to the Rural Utilities Service on Its Scoping of the Environmental Impact Statement in Deciding Whether to Finance the Proposed Cardinal-Hickory Creek Transmission Line and Towers.

Please confirm that you received these Comments. The Driftless Area Land Conservancy and its attorneys would be pleased to meet with you and other RUS officials to discuss questions or suggestions involving these Comments.

Thank you for your consideration.

Sincerely,

**Howard A. Learner and Rachel L. Granneman
Attorneys for the Driftless Area Land Conservancy**

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From: Howard Learner
Sent: Friday, January 06, 2017 5:00 PM
To: 'dennis.rankin@wdc.usda.gov'; 'comments@CardinalHickoryCreekEIS.us'
Cc: Dave Clutter (dave@driфтlessconservancy.org); Howard Learner; Scott Strand; Rachel Granneman
Subject: Cardinal-Hickory Creek Transmission Line -- Driftless Area Land Conservancy's Scoping Comments on the Environmental Impact Statement
Importance: High

Dear Mr. Rankin and SWCA Environmental Consultants:

Please see the attached Driftless Area Land Conservancy's Comments to the Rural Utilities Service on Its Scoping of the Environmental Impact Statement in Deciding Whether to Finance the Proposed Cardinal-Hickory Creek Transmission Line and Towers.

Please confirm that you received these Comments. The Driftless Area Land Conservancy and its attorneys would be pleased to meet with you and other RUS officials to discuss questions or suggestions involving these Comments.

Thank you for your consideration.

Sincerely,

Howard A. Learner and Rachel L. Granneman
Attorneys for the Driftless Area Land Conservancy

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ENVIRONMENTAL LAW & POLICY CENTER

Protecting the Midwest's Environment and Natural Heritage

**DRIFTLESS AREA LAND CONSERVANCY'S COMMENTS TO THE
RURAL UTILITIES SERVICE ON ITS SCOPING OF THE
ENVIRONMENTAL IMPACT STATEMENT IN DECIDING WHETHER TO FINANCE THE
PROPOSED CARDINAL-HICKORY CREEK TRANSMISSION LINE AND TOWERS**

Submitted on behalf of the
Driftless Area Land Conservancy
By its Attorneys:

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January 6, 2017

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Madison, WI • Minneapolis/St. Paul, MN • Sioux Falls, SD • Washington, D.C.



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INTRODUCTION AND OVERVIEW

The Driftless Area Land Conservancy and its members, by their attorneys, submit these comments to inform the Rural Utilities Service's ("RUS") scoping process for the Environmental Impact Statement ("EIS") on its decision whether to finance the proposed large Cardinal-Hickory Creek transmission line and tall towers in the Driftless Area of southwest Wisconsin and northeast Iowa. The RUS's EIS must "[r]igorously explore and objectively evaluate all reasonable alternatives," including no-build and robust non-transmission alternatives. 40 C.F.R. §§ 1502.2, 1502.14(a), 1508.25(b). The RUS must evaluate claims of "need" for these proposed costly transmission line based on the current factual data showing flat demand for electricity in Wisconsin. RUS must evaluate whether any purported need can be met through alternatives that result in less harmful environmental impacts. 42 U.S.C. §§ 4321, 4331, 4332(2)(C)&(E). The RUS must consider all reasonable direct environmental effects and indirect environmental effects of the proposed large Cardinal-Hickory Creek transmission line, and cumulative environment impacts in light of the nearby Badger-Coulee transmission line. 40 C.F.R. §§ 1508.7, 1508.8, 1508.25.

The Driftless Area is a unique eco-region and special scenic landscape. The Driftless Area is recognized internationally and by the Departments of Natural Resources in four states as a region of vital conservation opportunity and concern. This region contains multiple rare habitats, and it is the largest contiguous area of fish and wildlife habitat in the Upper Mississippi River basin area. Because this area was untouched by glaciers – they didn't "drift" – during the last Ice Age, the landscape was not scraped and flattened, and many unique natural communities remain. The special and beautiful Driftless Area topography thus contains hundreds of rolling hills with deep river valleys nestled in woodland, prairie and riparian habitats. More than 1,200

streams, including world-class trout fishing streams, traverse more than 4,000 river miles and create a network of 600 spring-fed creeks that flow through porous limestone bedrock, sustaining many uncommon species and serving as a rest stop for more than half of North America's migratory bird species.

This huge transmission line is not needed for electricity reliability in Wisconsin, and it would harm beautiful scenic rural landscapes, and degrade clean rivers and streams. The Driftless Area is a region deeply valued by its residents and tourists alike. The U.S. Department of Agriculture recognizes that the Driftless Area's "diversity of habitat provides critical habitat for dozens of species of concern in the State Wildlife Action Plans, and has been cited as one of North America's most important resources."¹

The Driftless Area Land Conservancy ("DALC") is a not-for-profit conservation organization with many local members who work to maintain and enhance the health, diversity and beauty of southwest Wisconsin's natural and agricultural landscape through permanent land protection and restoration and other preservation actions, and to improve people's lives by connecting them to the land and to each other. DALC protects land and other natural resources in the southwest Wisconsin area around the proposed Cardinal-Hickory Creek transmission line corridors. DALC has serious concerns about the significant adverse environmental impacts of the proposed transmission line and very tall towers in the Driftless Area. DALC's members and volunteers live in, own property in, and use and enjoy the Driftless Area near the proposed transmission line corridors. DALC members hike, fish, camp, hunt, bike, swim, boat, ski, picnic and otherwise enjoy the state parks, natural areas, recreation areas, scenic landscapes and other resources that would be harmed by the proposed transmission line and very tall towers.

¹ U.S. Department of Agriculture, Regional Conservation Partnership Program, *Investing in Wisconsin – 2016*, http://www.nrcs.usda.gov/wps/PA_NRCSCconsumption/download?cid=nrcseprd623814&ext=pdf.

The controversial proposed Cardinal-Hickory Creek high-voltage 345 kV transmission line and its very tall towers would cut a large swath for up to 135 miles through many vital natural resource conservation areas in the Driftless Area. American Transmission Company's, ITC's and Dairyland Power Cooperative's ("Dairyland") proposed transmission line is estimated to cost at least \$500 million to build, plus financing costs and then the annual "rate of return" (i.e., profit) that would be charged to consumers.

The proposed huge Cardinal-Hickory Creek transmission line would start in Dubuque County, Iowa, cross the Mississippi River at Cassville, cut through the protected Upper Mississippi River National Wildlife and Fish Refuge, and then run through various proposed corridors, cutting a swath through designated conservation areas and some of Wisconsin's most scenic landscapes before terminating in Middleton just west of Madison. This proposed transmission line and towers would run by and through parklands and conservation areas such as the Military Ridge Prairie Heritage Area, which the Wisconsin Department of Natural Resources identifies as the highest priority for landscape-scale grassland protection and management in Wisconsin, and the continentally significant Dodgeville and Wyoming Oak Woodlands/Savanna Conservation Opportunity Area.

RUS's scoping of the EIS must fully and fairly consider a number of key issues and alternatives under the governing law. The National Environmental Policy Act ("NEPA"), Council on Environmental Quality regulations and guidance, RUS's own NEPA implementing regulations, and the applicable case law include many specific requirements for the EIS.² To meet those requirements, the RUS's EIS must do the following in its scope and implementation:

² RUS has already determined that this proposed project is in the "mandatory EIS" category under subpart D of RUS's new 2016 NEPA regulations. 7 C.F.R. § 1970.151.

1. The “purpose and need” section of the EIS must in broad terms describe the overall purpose and need to which RUS is responding in deciding whether or not to provide financing for the Cardinal-Hickory Creek transmission line. It cannot foreclose the requirement that RUS “rigorously explore and objectively evaluate all reasonable alternatives,” including both no-build alternatives and non-transmission alternatives, respectively. 40 C.F.R. § 1502.14. If RUS’s purpose and need statement was limited to analyzing only different corridors for this proposed transmission line, that would violate NEPA. *See, e.g., Simmons v. U.S. Army Corps of Engineers*, 120 F.3d 664, 667 (7th Cir. 1997) (agency violated NEPA by defining impermissibly narrow purpose for project and failing to consider a full range of alternatives).

2. The EIS must fully and fairly analyze current objective, factual data in determining the purported “need” for the proposed new transmission line to import power into the Madison area for electricity reliability. As shown below, electricity demand in Wisconsin (and northern Illinois) is actually flat and potentially declining. *See Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349 (1989) (“[NEPA] ensures that the agency, in reaching its decision, will have available, and will carefully consider, detailed information concerning significant environmental impacts; it also guarantees that the relevant information will be made available to the larger audience that may also play a role in both the decisionmaking process and the implementation of that decision.”). 40 C.F.R. § 1500.1 (“The information [in NEPA documents] must be of high quality. Accurate scientific analysis, expert agency comments, and public scrutiny are essential to implementing NEPA.”).

3. The EIS must “rigorously explore and objectively evaluate” a full range of “all reasonable alternatives.” The EIS must analyze the significant environmental impacts of the proposed transmission line and tall towers, and also all reasonable alternatives, including both:

(1) a no-build alternative, and (2) non-transmission alternatives. These non-transmission alternatives should include a combination of implementing energy efficiency, demand response, new wind power and solar energy development, and other distributed generation in Wisconsin, batteries and other energy storage development in Wisconsin, and local reliability improvements. 42 U.S.C. § 4332(2)(C) & (E); 40 C.F.R. §§ 1502.2, 1502.14, 1502.16.

4. The EIS must address the full range of all significant direct, indirect and cumulative environmental impacts, including all of the topics that the RUS outlined at its scoping meetings. The proposed Cardinal-Hickory Creek transmission line will have significant adverse effects on the environment in the Driftless Area. It would run by and through parklands and conservation areas such as the Military Ridge Prairie Heritage Area, the continentally-significant Dodgeville and Wyoming Oak Woodlands/Savanna Conservation Opportunity Area, and the Upper Mississippi River National Wildlife and Fish Refuge. It would impact the Pecatonica State Trail, Military Ridge State Trail, Blue Mound State Park, and Governor Dodge State Park, and cause habitat destruction that would impact many species. It would harm many trout streams, and exceptional and outstanding water resources. The transmission line would also negatively impact and impair the value of privately-held conservation easements, including several held by DALC. Moreover, RUS must examine the “cumulative impacts” of the new Badger-Coulee transmission line and the proposed Cardinal-Hickory Creek transmission line in the Driftless Area. These and additional impacts of the proposed project must be thoroughly analyzed in the EIS, and compared to the impacts of all reasonable alternatives. 40 C.F.R. §§ 1502.14, 1502.16, 1508.7, 1508.8, 1508.25.

5. The EIS must address conflicts with Wisconsin’s siting law for proposed new high-voltage transmission lines.

I. RUS MUST DEFINE THE PURPOSE AND NEED TO BE SUFFICIENTLY BROAD IN ORDER TO ENABLE FULL CONSIDERATION OF ALL REASONABLE ALTERNATIVES, AND IT CANNOT BE NARROWLY DEFINED IN WAYS THAT FORECLOSE REASONABLE ALTERNATIVES.

The purpose and need statement is a key part of the National Environmental Policy Act environmental review process. It frames the issue that needs solving and the realm of possible alternatives. The purpose and need must therefore be written broadly enough not to foreclose reasonable alternatives. As explained in *Simmons v. United States Army Corps of Engineers*, 120 F.3d 664, 666 (7th Cir. 1997), a federal agency must consider “all reasonable alternatives” in an Environmental Impact Statement, and “[n]o decision is more important than delimiting what these ‘reasonable alternatives’ are. . . . To make that decision, the first thing an agency must define is the project’s purpose. . . . The broader the purpose, the wider the range of alternatives; and vice versa.”

In this case, the EIS cannot be limited to simply considering and selecting which route and corridors the Cardinal-Hickory Creek transmission line, as proposed, will take. The EIS must include a true “hard look” analysis of all reasonable alternatives, including non-transmission alternatives and the no-build alternative.

The goal of NEPA and its EIS requirement is “to insist that no major federal project should be undertaken without intense consideration of other more ecologically sound courses of action, including shelving the entire project, or of accomplishing the same result by entirely different means.” *Environmental Defense Fund, Inc. v. United States Army Corps of Engineers*, 492 F.2d 1123, 1135 (5th Cir. 1974). The key to accomplishing that goal is to make sure at the outset that the “purpose and need” of the “major federal action” under review is not defined too narrowly to preclude a genuine analysis of a range of reasonable alternatives:

[A]n agency may not define the objectives of its action in terms so unreasonably narrow that only one alternative from among the environmentally benign ones in the agency's power would accomplish the goals of the agency's action, and the EIS would become a foreordained formality. Nor may an agency frame its goals in terms so unreasonably broad that an infinite number of alternatives would accomplish these goals and the project would collapse under the weight of the possibilities.

Citizens Against Burlington, Inc. v. Busey, 938 F.2d 190, 198 (D.C. Cir. 1991) (internal citations omitted); *see e.g., Simmons*, 120 F.3d at 666 (“[I]f the agency constricts the definition of the project's purpose and thereby excludes what truly are reasonable alternatives, the EIS cannot fulfill its role.”); *Van Abbema v. Fornell*, 807 F.2d 633 (7th Cir. 1986) (“[T]he evaluation of ‘alternatives’ mandated by NEPA is to be an evaluation of alternative means to accomplish the *general* goal of an action; it is not an evaluation of the alternative means by which a particular applicant can reach his goals.”) (emphasis in original).

An agency like RUS would therefore violate NEPA if it simply adopts as its own the developer's purpose in seeking approval for its particular project. *National Parks & Conservation Ass'n v. Bureau of Land Management*, 606 F.3d 1058 (9th Cir. 2010). RUS's NEPA implementing regulations state:

Applicants' proposals must, whenever practicable, avoid or minimize adverse environmental impacts; avoid or minimize conversion of wetlands or important farmlands . . . when practicable alternatives exist to meet development needs; [and] avoid unwarranted alterations or encroachment on floodplains when practicable alternatives exist to meet development needs.... The Agency shall not fund the proposal unless there is a demonstrated, significant need for the proposal and no practicable alternative exists to the proposed conversion of the above resources.

7 C.F.R. § 1970.4(a).

This scope of the RUS EIS in this case must independently assess whether there is a genuine “demonstrated, significant need” for this particular high-voltage transmission line

proposal, and whether any “practicable alternative exists” that will better “avoid or minimize adverse environmental impacts.”

Consequently, the purpose and need in this EIS cannot simply reiterate the same purpose and need statement in Dairyland’s constricted Alternatives Evaluation Study (“AES”), because that would impermissibly restrict the range of alternatives to be considered. The elements in the AES purpose and need statement all assume the need for this proposed large transmission line between the Hickory Creek substation in Iowa and the Cardinal substation in Middleton, Wisconsin. In other words, the AES defines the purpose and need in such a narrow way that only the construction of this particular transmission line can satisfy the purpose and need, necessarily ruling out a variety of reasonable alternatives:

- “address[] reliability issues on the regional bulk *transmission system*” instead of “address reliability issues for Wisconsin customers.”
- “cost-effectively *increase[] transfer capacity* to enable additional renewable generation needed to meet state renewable portfolio standards and support the nation’s changing energy mix” instead of “help meet Wisconsin’s renewable portfolio standards.”
- “alleviate[] congestion *on the transmission grid* to reduce the overall cost of delivering energy” instead of “reduce the overall cost of energy in Wisconsin.”
- “respond[] to public policy objectives aimed at *enhancing the nation’s transmission system* and reducing carbon dioxide emissions” instead of “reduce greenhouse gas emissions.”

AES at 6.

The AES’s narrow focus eliminates reasonable non-transmission alternatives that could meet the broader underlying needs just as well, such as sensible combinations of building more local renewable energy to reduce greenhouse gas emissions and implementing more energy efficiency to reduce energy costs. If RUS’s EIS does not rigorously explore and objectively evaluate both non-transmission alternatives and a no-build alternative to the proposed Cardinal-Hickory Creek transmission line, then it will not comply with NEPA’s requirements. RUS

cannot adopt a limited purpose and need that acts as a “self-fulfilling prophecy” for this particular proposed large transmission line and tall towers and effectively precludes full and fair consideration of all reasonable alternatives. *Simmons v. United States Army Corps of Engineers*, 120 F.3d 664, 666 (7th Cir. 1997).

Furthermore, the proposed Cardinal-Hickory Creek transmission line’s purpose and need is to enable some unspecified out-of-state private business generating electricity in North Dakota, for example, to sell electricity over this privately-owned transmission line through Wisconsin to another party somewhere outside of Wisconsin, there are serious constitutional questions whether there is sufficient "public use" under the Takings Clause of the Fifth Amendment and the Due Process Clause of the Fourteenth Amendment to justify eminent domain to be applied in Wisconsin for the largely private purposes. *Cf. Kelo v. City of New London*, 545 U.S. 469 (2005).

II. RUS MUST CONDUCT ITS NEED ANALYSIS AND OBJECTIVE EVALUATION BASED ON CURRENT FACTUAL DATA REGARDING THE FLAT AND POTENTIALLY DECLINING ELECTRICITY DEMAND AND SALES IN CENTRAL AND SOUTHWEST WISCONSIN.

The proposed Cardinal-Hickory Creek transmission line would, if built, import more electricity from Iowa, Minnesota, North Dakota and South Dakota to Middleton (adjacent to Madison), Wisconsin. The RUS must address whether there is an the actual “demonstrated, significant need” for this additional electricity supply in central and southwest Wisconsin when the current factual data shows that electricity demand and sales are flat and potentially declining. RUS’s analysis of whether there is a need for more power cannot just rely on the Midcontinent Independent System Operator’s (“MISO”) multi-value project portfolio (“MVP”) analysis conducted more than five years ago even though the Wisconsin and Midwest energy market has since significantly changed. 40 C.F.R. § 1970.4(a).

First, the MISO MVP data is outdated. The proposed Cardinal-Hickory transmission line is the last and most expensive of the 17 lines in the MVP portfolio designated by MISO in 2011. The Midwest electricity market, especially in Illinois, Minnesota and Wisconsin, however, has greatly changed since 2011. Electricity demand and sales have flattened or declined because of energy efficiency, demand response, distributed generation, and due to the continued overall economic transition from energy-intensive heavy manufacturing to information technology and service-focused businesses. MISO based its MVP transmission lines analysis on forecasts that energy demand would increase by about 0.78% – 1.28% annually from 2012 – 2021. What has actually happened is quite different in the Madison Gas and Electric (“MGE”) and Wisconsin Power and Light (“WP&L”) service areas, and in Illinois and Minnesota, too. Both MGE’s and WP&L’s electricity sales have decreased since hitting their previous highest levels in 2011 and 2007, respectively, even as the utilities gained additional customers.

MGE’s highest retail electricity sales were in 2007 (pre-economic recession) and in 2011 (post-economic recession). Its retail electricity sales have decreased by about 2.0% (-0.5% per year) since 2011. MGE’s total sales have decreased since 2007 over the past five years and have been flat over the past decade, notwithstanding a growing economy and an 8% increase in the number of customers. WP&L’s highest retail electricity sales were in 2007 (pre-economic recession) and have since decreased by about 2.3% (-0.3% per year), notwithstanding economic growth and a 2.25% increase in the number of customers.

Therefore, there are much lower electricity sales and demand in MGE’s and WP&L’s service areas than in MISO’s regional forecast when it included the proposed Cardinal-Hickory Creek transmission line in its overall project portfolio. The Wisconsin economy has grown, but more energy efficiently. The delta between actual electricity sales and MISO’s projected

electricity sales is substantial. The declining/flat electricity sales trend line is clear. The charts below provide MGE's and WP&L's self-reported data in their filings with the U.S. Securities & Exchange Commission:

<u>MGE</u>	<u>Retail Electricity Sales (MWh)</u>	<u>Diff. f/Prior Year</u>	<u>Total Electricity Sales (MWh)</u>	<u>Diff. f/Prior Year</u>	<u>Customers</u>	<u>Cooling Degree Days Norm-665</u>	<u>Heating Degree Days Norm-7,047</u>	<u>Summer Peak (MW)*</u>	<u>Winter Peak (MW)*</u>
2015	3,289	(0.3)	3,357	(0.3)	146,000	666	6,395		
2014	3,298	(0.5)	3,366	0	143,000	620	7,887	690	525
2013	3,314	(0.8)	3,365	(0.3)	141,000	709	7,658	734	507
2012	3,343	(0.3)	3,374	(1.2)	140,000	1,068	5,964	767	499
2011	3,353	0.8	3,415	1.4	139,000	814	6,993	778	483
2010	3,327	4.1	3,368	4.9	139,000	829	6,798	714	498
2009	3,195	(4.0)	3,210	(5.1)	138,000	368	7,357	694	507
2008	3,327	(0.5)	3,381	(1.5)	137,000	538	7,716	673	515
2007	3,344	2.8	3,432	2.5	136,000	781	6,935	684	516
2006	3,253	(0.7)	3,348	(3.4)	135,000	637	6,520	742	508
2005	3,277		3,464			847	6,840	689	508

* 2015 data unavailable

MGE SEC 10-K Filing for Year Ending December 31, 2015 at page 7, 30, 35

http://www.sec.gov/Archives/edgar/data/61339/000116172816000028/f10k_2015.htm and MGE SEC 10-K Filings for all previous years.

<u>WP&L</u>	<u>Retail Electricity Sales (MWh)</u>	<u>Diff. f/Prior Year</u>	<u>Total Electricity Sales (MWh)</u>	<u>Diff. f/Prior Year</u>	<u>Customers</u>	<u>Cooling Degree Days Norm-663</u>	<u>Heating Degree Days Norm-7,046</u>	<u>Summer Peak (MW)</u>	<u>Winter Peak (MW)</u>
2015	10,556	0	14,437	3.0	463,346	665	6,667	2,564	2,153
2014	10,572	2.0	14,023	(2.0)	465,416	620	7,884	2,594	2,202
2013	10,364	1.0	14,246	0	462,679	709	7,627	2,752	2,120
2012	10,384	0	14,179	(1.0)	460,446	1,070	5,964	2,851	1,964
2011	10,241	2.0	14,291	4.0	458,894	814	6,992	2,761	1,991
2010	10,068	3.0	13,733	(5.0)	457,042	829	6,798	2,654	2,104
2009	9,795	(6.0)	14,396	1.0	455,752	368	7,356	2,558	2,265
2008	10,464	(3.0)	14,203	(5.0)	455,331	538	7,754	2,583	2,210
2007	10,801	1.0	14,985	0	453,051	781	6,935	2,816	2,316
2006	10,738	0	14,921	(1.0)	458,517	637	6,499	2,941	2,362

2005	10,698		15,144		452,679	847	6,796	2,854	2,280
Alliant Energy SEC 10-K Filing for Year Ending December 31, 2015 at page 18, 20, 41 http://www.sec.gov/Archives/edgar/data/52485/000035254116000076/Int1231201510-k.htm and Alliant Energy SEC 10-K Filings for all previous years.									

These overall flat or lower demand trends (and the consequent surplus electric generating supply) are not isolated to Wisconsin, but are occurring throughout most of the Midwest. For example, across the state border in Illinois, Commonwealth Edison’s electricity sales are decreasing 1.0% annually while it has gained 100,000 additional customers over the past three years and the Chicago region’s economy is growing. Likewise, Xcel-Northern States Power’s electricity sales in Minnesota decreased by about 1.5% over the past year due to lower energy use per customer even though the utility gained additional customers. American Electric Power, headquartered in Columbus, Ohio, projects that demand for its electricity in Ohio will likewise decline.

Second, MISO analyzed the benefits of the MVP portfolio as a whole. It specifically did not examine the benefits and value of individual transmission lines. MISO never found a separate need for the Cardinal-Hickory Creek transmission line in 2011 or, needless to say, in today’s electricity market. Nor did MISO conduct a cost-benefit analysis of the proposed Cardinal-Hickory Creek transmission line or analyze non-transmission alternatives. Moreover, the Cardinal-Hickory Creek transmission line is the last of the MVP lines, and, therefore, the question of whether this last line is still needed today must be objectively evaluated in the EIS.

The AES’ analysis of need is entirely insufficient as a practical and legal matter. In discussing supposed “need,” the AES relies heavily on transmission-building buzzwords like “reliability” and “congestion” without backing up those concerns.

In determining now whether there is actually a need for importing additional electricity supply into the Driftless Area in central and southwest Wisconsin, the RUS must consider new generation that is already planned and being built in the area, including among others:

- WP&L is building a large 700-megawatt new natural gas-fired power plant and a 2-megawatt solar energy generating facility in Beloit.³
- WP&L is also eligible to purchase up to 200 megawatts of a new natural gas-fired plant to be built by either We Energies or Wisconsin Public Service Corporation starting around 2020.
- Two new wind farms totaling 200 megawatts are being developed just east of Platteville in Seymour and in the Town of Forest in St. Croix County, which will supply Dairyland and WP&L customers. In June 2016, Dairyland announced a power purchase agreement with EDP Renewables for 98 MW of wind energy from the Quilt Block Wind Farm in Seymour that is expected to be operational in late 2017.⁴
- WPPI Energy, which provides electricity to 51 not-for-profit utilities, issued a request for proposals for 100 megawatts of wind power or other renewable energy resource supplies that will meet its “need for additional energy supply beginning in 2021 . . . in a manner that eases compliance with future environmental regulations such as the Clean Power Plan.”⁵
- At least three more Wisconsin wind farms are planned in Rock County (150 megawatts), Monroe County (150 megawatts) and Green County (60 megawatts).

³ Alliant Energy, *Riverside Energy Center Expansion*, <http://www.alliantenergy.com/AboutAlliantEnergy/CompanyInformation/Riverside/>. The Commission determined that this new natural gas-fired plant in Beloit would replace approximately 640 megawatts of retiring coal plants between now and the mid-2020s. Final Decision, at 9, Application of Wisconsin Power and Light Co., Pub. Serv. Comm. of Wis., 6680-CE-176 (May 6, 2016).

⁴ Thomas Content, *New Wisconsin Wind Farm to be Built Next Year, Three Other Projects Eyed in State*, Journal Sentinel (June 7, 2016), <http://www.jsonline.com/story/money/blogs/plugged-in/2016/06/08/new-wisconsin-wind-farm-to-be-built-next-year-three-other-projects-eyed-in-state/85637750>.

⁵ WPPI Energy, *Request for Proposals for Renewable Energy Supply*, https://wppienergy.org/Portals/4/Documents/WPPI_2016_RFP_for_Renewable_Energy.pdf.

- Dairyland Power is now buying 15 megawatts of new solar power, and WP&L and MGE have indicated possible interest in developing more new solar energy projects.
- Xcel Energy has estimated that it will add approximately 700 MW of capacity by 2019, including: 73 MW of hydroelectric, 60 MW of wind, 170 MW of solar, and 480 MW of natural gas-fired generation, of which 16% will be provided to serve electricity demand in Wisconsin.

RUS must also consider the “cumulative impacts” on purported need of other new transmission lines for the area. 40 C.F.R. §§ 1502.7, 1508.25. For example, the Public Service Commission of Wisconsin approved a Certificate of Public Convenience and Necessity for the new Badger-Coulee 345 kV high-voltage transmission line – connecting Minnesota and La Crosse to Middleton, Wisconsin – that will likewise import out-of-state electricity supply from Iowa, Minnesota, North Dakota and South Dakota into the Wisconsin power market.⁶ This is in addition to the out-of-state electricity supply to be imported by the proposed Cardinal-Hickory Creek transmission line from Iowa, Minnesota, North Dakota and South Dakota into Middleton, Madison and central and southwest Wisconsin.

The arguments made in the AES regarding the need for the proposed transmission line miss the mark. The AES states that there is a capacity import limit into Wisconsin from Iowa, that some wind farms have only been able to get conditional interconnection agreements and that “the development of additional wind generation in Iowa is dependent on increasing transfer capability.” AES at 26-27. However, a limit on bringing more power from Iowa into southwest

⁶ An appeal of the Commission’s decision is pending in the state court based on contentions that ATC did not meet the statutory standards for demonstrating “need” for the Badger-Coulee transmission line. If the state court upholds the Commission’s decision and finds that the Badger-Coulee is needed, then that would weaken ATC’s argument that another huge new transmission line is also needed. If, on the other hand, the state court reverses the Commission’s “need” determination for the Badger-Coulee transmission line, then it is much less likely that ATC can demonstrate “need” for its proposed new Cardinal-Hickory Creek transmission line.

Wisconsin could only be a problem if there were a need for more power in southwest Wisconsin, and only if that need could not be met from local sources. As explained above, there is not a “demonstrated, significant need” for more electricity supply in Wisconsin, and even if there were, the RUS must “rigorously explore and objectively evaluate all reasonable alternatives” – including non-transmission alternatives involving local clean distribution generation and energy efficiency and demand response – for meeting any such “demonstrated, significant need.”

The AES also states that a NERC report found that even in the absence of the Clean Power Plan, more transmission will be needed “to maintain the bulk power system’s reliability.” AES at 32. However, this overly generalized statement of the United States’ overall transmission system is not relevant to RUS’s more focused analysis here regarding the need, if any, for this specific proposed Cardinal-Hickory Creek transmission line to achieve reliability in Wisconsin.

III. RUS MUST “RIGOROUSLY EXPLORE AND OBJECTIVELY EVALUATE ALL REASONABLE ALTERNATIVES” INCLUDING NON-TRANSMISSION ALTERNATIVES AND THE NO-BUILD ALTERNATIVE.

The “[s]cope consists of the range of actions, alternatives, and impacts to be considered in an environmental impact statement.... [A]gencies shall consider 3 types of actions, 3 types of alternatives, and 3 types of impacts.” 40 C.F.R. § 1508.25 (emphasis added). The three types of actions are connected actions, cumulative actions (such as the Badger-Coulee transmission line) and similar actions. 40 C.F.R. § 1508.25(a). The three types of “[a]lternatives ... include: (1) No action alternative. (2) Other reasonable courses of actions. (3) Mitigation measures (not in the proposed action).” 40 C.F.R. § 1508.25(b).

Under NEPA, the RUS must “rigorously explore and objectively evaluate all reasonable alternatives.” 40 C.F.R. § 1502.14(a). The choice of what alternatives to include in an EIS “and the ensuing analysis, forms ‘the heart of the environmental impact statement.’” *Simmons v.*

United States Army Corps of Eng'rs, 120 F.3d 664, 666 (7th Cir. 1997) (citing 40 C.F.R. § 1502.14); 42 U.S.C. § 4332(2)(C)(iii). To accomplish this required analysis in the EIS process, the RUS must:

- (a) Rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated.
- (b) Devote substantial treatment to each alternative considered in detail including the proposed action so that reviewers may evaluate their comparative merits.
- (c) Include reasonable alternatives not within the jurisdiction of the lead agency.
- (d) Include the alternative of no action.
- (e) Identify the agency's preferred alternative or alternatives, if one or more exists, in the draft statement and identify such alternative in the final statement unless another law prohibits the expression of such a preference.
- (f) Include appropriate mitigation measures not already included in the proposed action or alternatives.

40 C.F.R § 1502.14.

A. RUS Must Consider “No-Build” Alternatives.

The scope of RUS’s EIS must include a full and fair analysis of “the alternative of no action” – namely, the “no-build” alternative. 40 C.F.R §§ 1502.14(d), 1502.16, 1508.25(b)(1).

The RUS cannot just “go through the motions” on this required no-build alternative. That would violate NEPA. For example, as the District Court held in *Sierra Club, Illinois Chapter v. U.S.*

Department of Transportation, 962 F. Supp. 1037, 1043 (N.D. Ill. 1997):

However, the final impact statement in this case relies on the implausible assumption that the same level of transportation needs will exist whether or not the tollroad is constructed. In particular, the final impact statement contains a socioeconomic forecast that assumes the construction of a highway such as the tollroad and then applies that forecast to both the build and no-build alternatives. The result is a forecast of future needs that only the proposed tollroad can satisfy. As a result, the final impact statement creates a self-fulfilling prophecy that makes a reasoned analysis of how different alternatives satisfy future needs impossible.

B. RUS Must Analyze Other Courses Of Action – The Reasonable Alternatives Cannot Be Limited to Choosing Only Between The Proposed Cardinal-Hickory Creek Transmission Line and No-Build Alternative.

RUS’s alternatives analysis cannot be limited to simply comparing a particular transmission line’s corridors and a no-build alternative. The agency must robustly analyze “[o]ther reasonable courses of actions.” 40 C.F.R § 1508.25(b)(2). In this case, therefore, RUS must analyze non-transmission alternatives, as NEPA requires federal agencies to “rigorously explore and objectively evaluate all reasonable alternatives.” 40 C.F.R § 1502.14(a). An EIS must “[i]nclude reasonable alternatives not within the jurisdiction of the lead agency.” 40 C.F.R. § 1502.14(c).

C. EIS Must Consider a Range of Reasonable Alternatives, Including Non-Transmission Alternatives.

The scope of RUS’s EIS for the proposed Cardinal-Hickory Creek transmission line must consider and analyze a variety of reasonable alternatives, including non-transmission alternatives. The cursory and dismissive approach taken in the AES to non-transmission alternatives is not permissible. An EIS must “[d]evote substantial treatment to each alternative considered in detail including the proposed action so that reviewers may evaluate their comparative merits.” 40 C.F.R. § 1502.14(b).

The EIS must consider reasonable non-transmission alternatives including a combination of both Wisconsin utility-scale renewable energy generation and distributed solar energy and wind power generation with energy storage technologies, energy efficiency and demand response, as well as local distribution and transmission upgrades if needed. The AES improperly stacks the deck and dismisses several of these alternatives by claiming that each alternative individually cannot satisfy the alleged need. For example, the AES rejects energy efficiency by arguing that “an increase in energy efficiency” to levels necessary to replace the transmission

line entirely with energy efficiency “is simply not possible.” AES at 47. That each-standing-alone-in-isolation approach is not a reasonable or sensible consideration of alternatives under NEPA. 40 C.F.R. §§ 1502.14, 1502.16, 1508.25. The scope of RUS’s EIS must rigorously explore and objectively evaluate non-Cardinal-Hickory Creek transmission line alternatives.

The AES’s blanket rejection of non-transmission alternatives is impermissible. For example, the AES states that demand response is not an acceptable alternative because it would not “increase the transfer capability between Iowa and Wisconsin.” AES at 47. The EIS must include a solution-neutral purpose and need statement, so that alternatives are not eliminated simply because they are different than the proposed project. *Simmons v. U.S. Army Corps of Engineers*, 120 F.3d 664 (7th Cir. 1997). Reframing the purpose and need in the EIS, as discussed above, should help to address this problem.

The AES also fails to discuss the benefits of the alternatives. The EIS must include information about the alternatives “so that reviewers may evaluate their comparative merits.” 1502.14(b). For example, non-transmission alternatives often offer significant flexibility and can be deployed where (and sometimes even when) they are needed most. A Public Service Commission of Wisconsin report showed that for every dollar invested in energy efficiency in 2015 through its Focus on Energy program, \$3.51 in economic and non-economic benefits were created.⁷ This cost-to-benefit ratio is even higher in 2014 when the program created \$756 million in economic benefits and \$6.66 in benefits for every \$1 in costs, because some of the 2015

⁷ Wisconsin PSC, *Energy Efficiency and Renewable Resource Program Activities in Wisconsin: Calendar Year 2015*, <https://psc.wi.gov/reports/documents/2015FOEreport.pdf> at 2 (“By providing incentives, technical resources, and information, Focus aids residents in lowering their cost of living and businesses in improving their bottom lines. This drives millions of dollars in energy savings, and helps to improve our state’s environmental health and preserves our natural resources. . . . Non-economic benefits include the prevention of the following emissions: 7,932,278 tons of carbon dioxide; 4,930 tons of nitrogen oxide; and, 11,269 tons of sulfur dioxide.”).

programs were pilot efforts designed to try new technologies and program approaches, instead of maximizing savings achievement.

Lazard's Levelized Cost of Energy Analysis⁸ and many other studies have found that energy efficiency and demand response (such as interruptible rates) are by far the least costly way to meet overall energy needs. Demand response can be deployed in a targeted way when it is needed. Distributed renewable energy generation is less reliant on expensive large new transmission lines and is more flexible in meeting localized power needs. The EIS should also consider that the costs of many non-transmission alternatives, including renewable energy and energy storage technologies, are decreasing rapidly and will likely continue to do so.

The EIS should also consider alternatives based on changes to the electricity system and markets. A U.S. Department of Energy Report (2015) explains:

Changes to power system operations and markets can provide significant existing flexibility, often at lower economic costs than building new transmission infrastructure. Operations examples include more frequent dispatch (which reduces the time frame over which a generator must follow a specified output level), smart network technologies, and increased plant cycling.⁹

Moreover: "In market structures that more comprehensively value services provided to the grid, demand-side resources and storage could provide low-cost grid services, allowing more efficient grid operations and avoiding generation or transmission investments." *Id.* at 3-12.

RUS's EIS must consider whether the proposed Cardinal-Hickory Creek transmission line would actually meet the claimed needs. For example, the AES includes only a cursory discussion of the proposed transmission line's ability to actually help states meet their renewable portfolio standards ("RPS").

⁸ Lazard, *Lazard's Levelized Cost of Energy Analysis*, <https://www.lazard.com/media/2390/lazards-levelized-cost-of-energy-analysis-90.pdf>.

⁹ *Quadrennial Energy Review: Energy Transmission, Storage, and Distribution Infrastructure*, http://energy.gov/sites/prod/files/2015/04/f22/QER_Ch3.pdf (April 2015) at 3-12.

The developers and the AES have not provided any assurance or analysis of exactly how much wind power or other renewable energy generation versus fossil fuel-generated electricity will actually be carried on this proposed open access transmission line. The AES claims that increased transfer capacity from Iowa to Wisconsin will allow more wind farms to be built, yet ignores the possibility that the transmission line might also act as a lifeline for economically struggling fossil fuel plants. RUS's EIS must also analyze whether reasonable alternatives, such as building wind power and solar energy generation in Wisconsin, would better meet the needs of increased renewable energy generation and decreased greenhouse gas emissions.

The AES also makes several questionable assumptions that more renewable energy generated in states in Iowa, Minnesota, North Dakota and South Dakota will be both eligible to meet RPSs in Illinois, Indiana, Michigan and Wisconsin and that it is needed for these states to achieve their RPSs. For example, Illinois' new energy legislation includes an RPS of 25% by 2025, but it has a strong preference for the development of in-state renewable energy resources. Indiana does not have a mandatory RPS at all. Michigan's RPS generally requires renewable energy to be generated either in-state or within the service territory of a utility to which the RPS applies. Wisconsin already met its RPS of 10% by 2015.

The scope of the RUS's EIS must include an analysis of whether the proposed Cardinal-Hickory Creek transmission line would achieve economic benefits itself, and in comparison to other alternatives. The AES acknowledges that MISO "did not evaluate the economic benefits of each component of the [MVP] Portfolio." AES at 24 (emphasis added). Moreover, the scope of RUS's EIS should consider upgrades to existing grid infrastructure, and alternative transmission line corridors outside of the Driftless Area that has special ecological and wildlife values and special scenic landscapes.

IV. RUS MUST FULLY AND FAIRLY ANALYZE ALL DIRECT, INDIRECT, AND CUMULATIVE IMPACTS FOR THE PROPOSED CARDINAL-HICKORY CREEK TRANSMISSION LINE AND ALL REASONABLE ALTERNATIVES.

The scope of an EIS must include consideration of all direct, indirect, and cumulative impacts. 40 C.F.R. § 1508.25(c). The EIS “should present the environmental impacts of the proposal and the alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decisionmaker and the public.” 40 C.F.R. § 1502.14. In addition, “[t]he information [in NEPA documents] must be of high quality. Accurate scientific analysis, expert agency comments, and public scrutiny are essential to implementing NEPA.” 40 C.F.R. § 1500.1(b). It is important that the EIS consider the impacts of the proposed project both during the construction and operation phases, as those impacts may be very different. The EIS must also analyze and compare the environmental and other impacts of reasonable alternatives to the proposal. Federal regulations require that each alternative be discussed in enough detail “so that reviewers may evaluate their comparative merits.” 40 C.F.R. § 1502.14(b). It would not be permissible for RUS to do only a “qualitative” analysis of non-transmission alternatives that only generally describes the types of impacts that might be expected. The EIS must include a quantitative and detailed analysis of all reasonable alternatives, in addition to the analysis of the proposed action and the no-build alternative.

A. Environmental Impacts

The EIS must include a thorough discussion of environmental impacts, including impacts to geology and soils, vegetation, surface water, groundwater, floodplains, wetlands, wildlife, endangered and threatened species, woodlands, agricultural lands, aesthetics, noise, cultural resources, air quality, land use, archeological and historical sites, conservation areas, recreation areas and health and safety. The Cardinal-Hickory Creek transmission line would cut directly

through the Driftless Area and damage important natural and historical resources, adversely impact endangered species, and disrupt scenic landscapes.

The Driftless Area is recognized internationally and by the Departments of Natural Resources in four states as a region of vital conservation opportunity and concern. This region contains multiple rare habitats, and it is the largest contiguous area of fish and wildlife habitat in the Upper Mississippi River basin area. Because this area was untouched by glaciers during the last Ice Age, the landscape was not scraped and flattened; an ancient landscape shaped by wind and water erosion with unique natural communities remains. The unique and beautiful Driftless Area topography thus contains hundreds of rolling hills with deep river valleys nestled in woodland, prairie and riparian habitats. More than 1,200 streams, including world-class trout fishing streams, traverse more than 4,000 river miles and create a network of 600 spring-fed creeks that flow through porous limestone bedrock, sustaining many uncommon species and serving as a rest stop for more than half of North America's migratory bird species.

There are a number of concerns raised by large transmission line projects generally, and those should be considered. For example, transmission lines cause not only the destruction of habitat, but also fragment remaining habitat and create an avenue for invasive species. Maintenance of the rights-of-way may include spraying chemicals that damage the ecosystem and surrounding vegetation. Of course, aesthetic impacts are also a significant concern.

1. Threatened and Endangered Species

The proposed transmission line and tall towers would impact many high-quality habitats that are home to threatened, endangered and other species of concern. The area's southern sedge meadows, oak openings and barrens, pine relicts, dry prairies, mesic and dry-mesic forests, fast and cold streams, dry and moist cliffs, and forested seeps shelter and nurture diverse populations

of birds, insects, amphibians, reptiles and plants. If the proposed transmission line were to be built through these special areas, many species could be put at risk.

For example, Henslow's Sparrow is a Wisconsin threatened species and a federal species of concern. According to Wisconsin's Natural Heritage Inventory, Henslow's Sparrow is found in 12 of the 16 townships or ranges that the proposed transmission line would impact in Dane and Iowa Counties. The Loggerhead Shrike is a state endangered species and a federal species of concern, and it is found in 2 of the 16 townships or ranges in Dane and Iowa Counties. Other threatened bird species in the area include the Acadian Flycatcher, Bell's Vireo, Cerulean Warbler, Hooded Warbler and Upland Sandpiper.

The rare Rusty-Patched Bumble Bee has been identified in 8 of the 11 townships or ranges in Iowa County that would be impacted by the proposed transmission line, and Regal Fritillary butterfly populations, which are state endangered, are found in four townships or ranges that the proposed transmission line would cross.

Of the impacted townships and ranges in Iowa and Dane Counties, Blanchard's Cricket Frog populations (state endangered) are found in eight; Pickerel Frog populations have been identified in 8; Blanding's Turtle populations (fully protected) have been recorded in six, and Ornate Box Turtle populations (state endangered) have been found in six. The fish species Lake Sturgeon, Lake Chubsucker and Pugnosed Shiner (state threatened) have all been identified in at least one township or range that the proposed transmission line would impact.

The transmission line could also impact whooping cranes, which according to sightings and satellite telemetry data, have a range that includes areas in Clayton and Dubuque Counties in Iowa and in Grant, Iowa, Sauk and Dane Counties in Wisconsin. Many of the data points are very close to the proposed transmission line corridors. "[C]ollision mortality from power lines is

considered biologically significant” for whooping cranes, and one study found that “in the migratory Wisconsin population, 3 out of 18 mortalities (17%) were from collisions with power lines.”¹⁰

There are also many remnants of savanna, pine relict, oak forest, and wetland in and around the proposed corridors, which are likely not catalogued. Many of these remnants are likely home to rare species, which similarly may not be documented. RUS should work with local consultants and experts to inventory these remnant habitats and rare species so that the impacts to them from the proposed transmission line can be included in the EIS. The EIS must compare the impacts on threatened and endangered species from the proposed transmission line and the impacts (if any) from the alternatives described above.

2. Conservation and Recreation Areas

The proposed Cardinal-Hickory Creek transmission line would also harm a large number of lands of great conservation, ecological and scenic importance, and these impacts must be fully considered in the EIS. For example, one of the proposed corridors for this transmission line would cut through the northern edge of the Military Ridge Prairie Heritage Area, which is the Wisconsin Department of Natural Resources’ “highest priority for landscape-scale grassland protection and management in Wisconsin,” as the Nature Conservancy explains:

The Military Ridge Prairie Heritage Area (MRPHA) is a 95,000+ acre grassland landscape in Dane and Iowa counties in southwest Wisconsin. The area provides habitat for 14 rare and declining grassland bird species and contains more than 60 prairie remnants, representing one of the highest concentrations of native grasslands in the Midwest. The agricultural history of the area has helped keep the landscape much as it was when the first settlers saw it and has made it possible for plants and animals like grassland birds, which have disappeared in more developed parts of the Midwest, to survive... [It] represents one of the best

¹⁰ Edison Electric Institute, *Reducing Avian Collisions with Power Lines*, http://www.aplic.org/uploads/files/15518/Reducing_Avian_Collisions_2012watermarkLR.pdf at 33- 34 (2012).

opportunities in the Midwest to protect prairie remnants and area sensitive species, such as grassland birds.¹¹

The Military Ridge Prairie Heritage Area is also part of a larger 490,000-acre protected “Southwest Wisconsin Grasslands and Stream Conservation Area” macrosite established by the Wisconsin Department of Natural Resources. The purpose of this conservation area is to protect grassland birds and trout streams. The proposed transmission line corridor would run along the northern border of the Southwest Wisconsin Grasslands and Stream Conservation Area, and it would cut through the savannah ecosystem and would provide an optimal opportunity for owls and raptors to perch and locate rare grasslands birds to hunt and kill.

The northern proposed route would also cut through the Dodgeville and Wyoming Oak Woodlands/Savanna Conservation Opportunity Area as it runs along the steep and winding County Roads ZZ and Z. The Wisconsin Wildlife Action Plan states that this Conservation Opportunity Area has “continental significance” and notes that parts of the Driftless Area have high biodiversity and a significant number of rare species.¹²

The proposed transmission line would also impact state recreational trails. One of the proposed transmission line corridors would impact a significant part of the Pecatonica State Trail, which has wildlife and scenic significance; it is an important recreational area enjoyed by hikers and bikers. Another of the proposed corridors for the huge transmission line and tall towers would run along and cross over the Military Ridge State Trail. About 25 miles of this 40-mile biking and hiking trail, which passes by state parks, forested areas, wetlands and grasslands, would be impacted by the transmission line. Because the trail runs along the top of Military

¹¹ The Nature Conservancy, *Wisconsin: Military Ridge Prairie Heritage Area*, <http://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/wisconsin/placesweprotect/priority-area-military-ridge-prairie-heritage-area.xml>.

¹² Wisconsin Department of Natural Resources, *Wisconsin's Wildlife Action Plan*, http://dnr.wi.gov/topic/wildlifehabitat/documents/wap_implementation.pdf.

Ridge, around the highest elevation in the area, transmission lines built there would be very visible. There is also a proposed recreation/hiking trail from Blue Mounds to Spring Green, which would be adversely impacted by the proposed line.

The proposed Cardinal-Hickory Creek transmission line and tall towers would also disrupt and harm a large section of the Upper Mississippi River National Wildlife and Fish Refuge, which is “unmatched” for its scenic and wildlife value.¹³ This National Wildlife Refuge has wooded bluffs hundreds of feet high and is a crucial migratory pathway and breeding location for birds, such as bald eagles and great blue herons, and is home for many additional species of wildlife, fish and plants. *Id.*

The Upper Mississippi River National Wildlife and Fish Refuge is a Ramsar Convention Wetland of National Importance and Globally Important Bird Area, specifically for waterfowl. *Id.* According to the U.S. Fish and Wildlife Service, “during peak fall migration...hundreds of thousands of canvasbacks, common mergansers, goldeneyes, mallards, shovelers, blue-winged teal, and coots gather on the refuge.”¹⁴ Even if the proposed transmission line would replace an existing line crossing the Mississippi River and the total number of crossings of the Mississippi River would not increase, that should not be the end of the inquiry. The EIS may not simply assume that if the number of transmission lines crossing the Upper Mississippi River National Wildlife and Fish Refuge is the same, there is no impact on the refuge. First, there will undoubtedly be impacts from the construction activity itself. Second, the EIS should consider whether the existing line that the Cardinal-Hickory Creek transmission line would “replace” would be decommissioned soon anyway. The U.S. Fish and Wildlife Service, a consulting

¹³ U.S. Fish & Wildlife Service, *Upper Mississippi River: About the Refuge*, https://www.fws.gov/refuge/Upper_Mississippi_River/about.html.

¹⁴ U.S. Fish & Wildlife Service, *Upper Mississippi River: Seasons of Wildlife*, https://www.fws.gov/refuge/Upper_Mississippi_River/seasons_of_wildlife/index.html.

agency for this EIS, should act not only maintain the status quo, but also to “conserve, protect and enhance fish, wildlife, and plants and their habitats for the continuing benefit of the American people.”¹⁵

Transmission lines have also been shown to be lethal to birds. Millions of birds die each year in the United States due to collisions with or electrocution by power lines.¹⁶ Based on multiple studies in the northern United States and Canada, waterfowl are the bird group most vulnerable to death by transmission lines.¹⁷ This presents a significant danger to the thousands of waterfowl congregating on the Upper Mississippi River National Wildlife and Fish Refuge each year.

The proposed transmission line might impact bald eagles. Bald eagles are protected under the federal Bald and Golden Eagle Protection Act, and are listed as a species of Special Concern in Wisconsin. There are 51 active bald eagle nests in the four Wisconsin counties where the proposed transmission line would run, and 26 of the nests are within townships in the transmission corridors.

In addition to the impacts on the Military Ridge Prairie Heritage Area, the Southwest Wisconsin Grasslands and Stream Conservation Area, the Dodgeville and Wyoming Oak Woodlands/Savanna Conservation Opportunity Area, the Pecatonica State Trail, the Military Ridge State Trail, and the Upper Mississippi River National Wildlife and Fish Refuge summarized above, the proposed huge Cardinal-Hickory Creek transmission line and tall towers will impact: Governor Dodge State Park, Black Hawk Lake State Park and Blue Mounds State Park; state natural areas and preserves; scenic and recreational rivers such as Black Earth Creek,

¹⁵ U.S. Fish & Wildlife Service, *Who We Are*, <https://www.fws.gov/who/>.

¹⁶ Scott R. Loss et al., *Refining Estimates of Bird Collision and Electrocution Mortality at Power Lines in the United States*, PLoS ONE, 9(7): e101565 (2014) <http://dx.doi.org/10.1371/journal.pone.0101565>.

¹⁷ Sebastien Rioux, *Avian Mortalities Due to Transmission Line Collisions*, Avian Conservation and Ecology 8(2): 7 (2013) <http://dx.doi.org/10.5751/ACE-00614-080207>.

Grant River and the Platte River; wetlands including those adjoining Black Earth Creek and Pecatonica River; the Black Earth Creek Watershed Area; numerous trout streams and exceptional and outstanding resource waters; and numerous other critical natural resources and wildlife habitat along the proposed transmission line corridors.

RUS should also consider privately protected conservation easements and restoration efforts. For example, the EIS should analyze impacts on DALC's conservation easements and property included in the Wisconsin DNR's Landowner Incentive Program. Several DALC easements are either directly in or close to a proposed corridor. For example, DALC holds a conservation easement on part of the Thomas Farm on US 18/151 just west of Barneveld within one of the proposed corridors. The easement was purchased with funds from both the USDA Farm and Ranch Lands Protection Program and the Wisconsin Knowles-Nelson Stewardship Program, and the stone barn on the property is listed on the National Register of Historic Places.

The impacts of the proposed transmission line on all of these areas must be considered in the EIS and compared to the impacts from all reasonable alternatives.

3. Cultural and Historical Resources

RUS must analyze what impacts the proposed transmission line and alternatives would have on cultural and historical resources in the area. 40 C.F.R. § 1502.16 (requiring discussion of environmental consequences to include discussion of impacts on "historic and cultural resources"). The Driftless Area includes many important cultural and historical sites that could be adversely affected by the proposed Cardinal-Hickory Creek transmission line. The area contains the rich history of over 11,500 years of Paleo-Indian peoples, and many Native American tribes have sacred sites and cultural resources across the Driftless Area.

There are archeological sites located within the region that date back to the Archaic, Woodland and Mississippian periods, and many include pottery, arrowheads, and artificial mounds, among other important historical relics.¹⁸ Wisconsin “has the highest concentration of prehistoric mounds in the country, and is the epicenter for effigy mounds.”¹⁹ Transmission line construction in or around archeological sites is of particular concern. As the Public Service Commission stated: “Transmission line construction and maintenance can damage sites by digging, crushing artifacts with heavy equipment, uprooting trees, exposing sites to erosion or the elements, or by making the sites more accessible to vandals.”²⁰ Rock art is common throughout the region, and fragile carved rock formations would be especially vulnerable to vibrations from pile driving.

B. Greenhouse Gas Impacts

The EIS must also include a discussion of greenhouse gas and climate change impacts from the proposed Cardinal-Hickory Creek transmission line or that might affect the proposed line, and must compare these impacts to those related to the non-transmission alternatives discussed above. As explained in the Council on Environmental Quality’s (“CEQ”) recently released guidance document on greenhouse gases, “[c]limate change is a fundamental environmental issue, and its effects fall squarely within NEPA’s purview.” CEQ GHG Guidance at 2. The guidance document elaborates: “[c]onsistent with NEPA, Federal agencies should consider the extent to which a proposed action and its reasonable alternatives would contribute to

¹⁸ Driftless Area National Wildlife Refuge Comprehensive Conservation Plan, at 20-21 (2006), <https://www.fws.gov/midwest/planning/driftlessarea/ccp/CCP.pdf>.

¹⁹ Wisconsin Department of Natural Resources, *Prehistoric Native American Burial and Other Mounds*, <http://dnr.wi.gov/topic/Lands/CulturalRes/arch.html>.

²⁰ Public Service Commission of Wisconsin, *Environmental Impacts of Transmission Lines*, at 12 (2013), <http://psc.wi.gov/thelibrary/publications/electric/electric10.pdf>.

climate change, through GHG emissions, and take into account the ways in which a changing climate may impact the proposed action and any alternative actions.” *Id.* at 9.

First, the EIS must include a cradle-to-grave analysis of the greenhouse gas emissions from the construction of the proposed Cardinal-Hickory Creek transmission line, from mining the iron ore to make the steel to make the towers, to clearing the rights-of-way corridors, to erecting the towers, to manufacturing and installing the transmission line, to operation and maintenance, to eventual decommission. CEQ guidance acknowledges that “[s]ome proposed actions will have to consider effects at different stages to ensure the direct effects and reasonably foreseeable indirect effects are appropriately assessed; for example, the effects of construction are different from the effects of the operations and maintenance of a facility.” *Id.* at 18. The EIS must also include an analysis of the decrease in greenhouse gas sequestration from cutting down trees and converting agricultural areas, wetlands, etc. As explained in the CEQ guidance, “‘emissions’ includes release of stored [greenhouse gases] as a result of land management activities affecting terrestrial [greenhouse gas] pools such as, but not limited to, carbon stocks in forests and soils, as well as actions that affect the future changes in carbon stocks.” *Id.* at 1, n.1. Projected greenhouse gas emissions from the full lifetime of the transmission line can then be used as a proxy for determining climate change impacts from the project. *Id.* at 10.

Second, RUS must consider indirect greenhouse gas emissions and activities that “have a reasonably close causal relationship” and may occur “as a consequence” of a proposed action. *Id.* at 16, 13. Therefore, the EIS must analyze the greenhouse gas emissions related to the electricity generation mix carried on the line and ways in which the proposed line would impact the electricity market. For example, if the proposed transmission line is built, it will be “open access” under Federal Energy Regulatory Commission rules and will likely be used by a mix of

fossil fuel and renewable generation. The line may provide access to new markets to existing coal and gas plants in the western MISO states, and thereby make these plants economical when otherwise they would shut down. The environmental consequences of these circumstances, including greenhouse gas impacts, would need to be addressed in the EIS.

Third, the EIS must consider the impacts and interplay between climate change and the proposed project looking forward. CEQ guidance “[c]ounsels agencies to use the information developed during the NEPA review to consider alternatives that would make the actions and affected communities more resilient to the effects of a changing climate.” *Id.* at 5. For example, climate change will lead to more frequent and intense weather events across the country, including the MISO region, which may lead to increased risk of damage to transmission infrastructure, downed lines, and blackouts. RUS must consider the resiliency of the proposed action in comparison to the resiliency offered by reasonable alternatives: “Investments in energy efficiency, smart grid technologies, storage, and distributed generation can contribute to enhanced resiliency and reduced pollution, as well as provide operational flexibility for grid operators.”²¹ These resiliency benefits must be disclosed and discussed.

Climate change will also make some of the resources in the Driftless Area more vulnerable. This will increase the stress on ecosystems already negatively impacted by the proposed transmission line.

C. Economic and Property Impacts

The EIS must also include an analysis and discussion of economic impacts and other impacts to communities and property owners. To begin with, RUS must analyze negative impacts on property values and conservation easements from the construction and operation of

²¹ *Quadrennial Energy Review: Energy Transmission, Storage, and Distribution Infrastructure*, http://energy.gov/sites/prod/files/2015/04/f22/QER_Ch3.pdf (April 2015) at 3-2.

the proposed high-voltage transmission line. High-voltage transmission lines have a statistically significant negative impact on property values. A valuation guidance report by Appraisal Group One, which included a review of many empirical studies, including several from Wisconsin, concludes that “it can be stated with a high degree of certainty that there is a significant negative effect ranging from -10% to -30% of property value due to the presence of the high-voltage electric transmission line.”²² A well-regarded study from Montana analyzing the effects of large transmission lines on property values found properties up to 1,000 feet from a transmission line had values fall by 15%.²³ There are also detrimental impacts on the quality of life of people whose scenic views are disrupted and who sometimes report being bothered by buzzing and crackling sounds produced by transmission lines.²⁴

Transmission lines can interfere not only with property owners’ enjoyment of their property, but also with their practical use of their land. Many DALC members are involved in agriculture on some scale. Transmission towers and lines can interfere with farming operations by limiting movement of farm vehicles and irrigation equipment, preventing or limiting the use of planes for spraying, interfering with rotational grazing, and by causing the removal of wind breaks. The actual erection of the towers and placement of the line requires the use of heavy

²² Kurt C. Kielisch, Appraisal Group One, Inc., *Valuation Guidelines for Properties with Electric Transmission Lines*, <http://fieldpost.org/StarkEnergy/Studies/Valuation%20Guidelines%20for%20Properties%20with%20Electric%20Transmission%20Lines%201.pdf> at 6.

²³ James A. Chalmers, *Transmission Line Impacts on Rural Property Value*, Right of Way (May/June 2012), https://www.irwaonline.org/eweb/upload/web_mayjune12_Transmission.pdf.

²⁴ There have been studies that have reached somewhat different results. The findings in the case studies cited in this memo, however, are supported by another study conducted by Colwell and Foley in Central Illinois, which a literature review by Mountain View Research listed as especially methodologically sound compared to the many other studies they had evaluated. A multivariate regression analysis of selling prices based on ten variables, including proximity to the transmission line, found “a significant negative relation between selling price and proximity to the transmission line for properties within 200 feet.” Lita Furby et al., *Electric Power Transmission Lines, Property Values, and Compensation*, Journal of Environmental Management (1988), <http://sds.hss.cmu.edu/risk/articles/ElectricPowerTransLines.pdf>. Another study vetted by the same organization and conducted by the University of Waterloo found, with a sample size of more than 1,000 sales, that property values near transmission lines were 16% – 29% lower than those of similar properties, and that smaller properties in particular were disproportionately impacted. *Id.*

machinery, which can compact dirt, leave ruts in fields, and introduce contaminated soils. The spraying of chemicals to manage a transmission line corridor can interfere with nearby organic farming operations. Some local organic farmers have expressed concerns that this spraying could potentially result in loss of their organic certification. High-voltage transmission lines can also cause disruptions to animal herds due to stray voltage issues.

DALC members and other local businesses are located on the proposed corridor. DALC member Uplands Cheese, which produces award-winning cheeses from grass-fed cows and sells to international markets, is especially environmentally sensitive. DALC member Botham Vineyards is a destination winery because of the quality of the produce and its setting in the beautiful Driftless Area. The Deer Valley Lodge and Golf Course has fairways built around natural native prairies and woodlands. It provides habitat to several threatened and endangered species, including the federally-listed Regal Fritillary butterfly, and attracts golfers because of its natural setting. These and other businesses would be severely negatively impacted by the proposed transmission line.

Impacts on property values have subsequent impacts on the amount of revenue local governments bring in through property taxes. The EIS should consider that decreased property values will mean local governments in the area will have less money to spend on schools, roads, and other important infrastructure.

The EIS must also consider effects on recreation and tourism. The harmful visual impacts are magnified in the Driftless Area where many people choose to live, buy properties, recreate, and visit in part because of the scenic landscape views. Tourism is growing in the Driftless Area and is an important driver of economic growth.²⁵ The proposed huge new transmission line and

²⁵ See Wisconsin Dep't of Natural Resources, *Economic Impacts of the Wisconsin State Park System*, <http://dnr.wi.gov/topic/parks/documents/EconImpact2013.pdf> at 24-25 (Nov. 2013).

very tall towers will disrupt the scenic landscapes and park areas that attract visitors to the special Driftless Area. The proposed transmission line would be especially visible if it is built along a ridge, as is indicated in one of the proposed corridors.

The EIS must also consider the economic cost of actually building the proposed Cardinal-Hickory Creek transmission line, and compare this to the cost of reasonable alternatives. The analysis should also discuss how that cost will be distributed and the effects on ratepayers' utility bills. This analysis must include the economic benefits from alternatives, such as local energy resource development, energy efficiency, and demand response.

D. Cumulative Impacts

The scope of the EIS must also include cumulative actions and cumulative impacts. 40 C.F.R. §§ 1508.25(a)(2) and (c)(3). This means that the EIS must discuss past, present and reasonably foreseeable projects in the area and explain how these projects and other circumstances may, in combination with the proposed transmission line, cause cumulative impacts in the region. For example, RUS must consider the new Badger-Coulee transmission line, a high-voltage line that would run from Minnesota to La Crosse, Wisconsin and then to the same Cardinal substation in Middleton, Wisconsin. The EIS should also consider the planned conversion of 28 miles of US 18/151 from Dodgeville to Verona to a freeway and the new Vortex Optics industrial park in Barneveld. The freeway conversion/expansion will be a significant project – including “four new interchanges, seven grade-separated crossings . . . , 21 miles of new and altered local roads and one pair auxiliary lanes”²⁶ – and will impact areas that

²⁶ Wisconsin Department of Transportation, *US 18/151 Freeway Conversion Plan Dodgeville to Verona, Dane and Iowa Counties: Environmental Assessment*, <http://wisconsindot.gov/Documents/projects/by-region/sw/18151study/ea-complete.pdf> at 7 (Nov. 2013).

would also be directly impacted by one of the proposed corridors for the Cardinal-Hickory Creek transmission line.

As with every type of impact, RUS must compare the cumulative impacts from the proposed transmission line with the impacts from all reasonable alternatives.

V. RUS'S EIS MUST ANALYZE CONFLICTS BETWEEN THE PROPOSED CARDINAL-HICKORY CREEK TRANSMISSION LINE CORRIDORS AND THE WISCONSIN SITING LAWS.

RUS must also analyze Wisconsin state laws when comparing alternatives. An EIS must include a discussion of “[p]ossible conflicts between the proposed action and the objectives of Federal, regional, State, and local . . . land use plans, policies and controls for the area concerned.” 40 C.F.R. § 1502.16. The Wisconsin Energy Priorities Law establishes a clear, specific priority order for siting all new transmission lines and related facilities:

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.

Wis. Stat. § 1.12(6).

The Public Service Commission of Wisconsin recognizes that “this statute prefers corridor sharing because it imposes only an incremental addition of impacts to an area that is already affected by a cleared corridor, instead of the larger burdens caused by siting a transmission line in a new corridor.” Application of American Transmission Company, 2006 Wisc. PUC LEXIS 309, *40 (June 30, 2006). Many segments of the proposed Cardinal-Hickory Creek transmission line corridors do not comply with these Wisconsin statutory requirements.

When running through recreational trail areas such as the Military Ridge State Trail and Pecatonica State Trail, transmission lines should be placed underground – not overhead – and should not significantly harm environmentally-sensitive areas. The Public Service Commission of Wisconsin has explained:

The plain wording of the priorities in that subsection are intended to protect recreational corridors from being used as routes for overhead transmission lines. The statute requires any transmission line located in a recreational trail corridor to be placed underground, if the corridor is to be used in the identified priority list. Further, a transmission line in a recreational trail corridor cannot significantly impact environmentally sensitive areas. . . . If an overhead segment is proposed, it should be designed to minimize the impact on the trail corridor and then it may be considered among the lowest priority of all the options listed, including new corridors.

Application of American Transmission Company, 2006 Wisc. PUC LEXIS 384, *29-30 (August 10, 2006). Siting overhead new transmission lines along recreational trails should “among the lowest priority of all the options listed.” These conflicts with the state siting laws must be analyzed by RUS in the scope of its EIS in this case.

CONCLUSION

The Driftless Area Land Conservancy appreciates the Rural Utilities Service’s consideration of these comments on the lawful and appropriate scope for the Environmental Impact Statement in this case. DALC and its attorneys would be pleased to meet with RUS officials to discuss questions or suggestions involving any of the above comments, including: (1) a properly defined purpose and need statement; (2) the current available factual data on Wisconsin electricity demand and the availability of renewable energy generation, other energy supply, energy efficiency and demand response resources; (3) the NEPA requirements for an EIS that “rigorously explores and objectively evaluates all reasonable alternatives” including non-transmission line alternatives and no-build alternatives; (4) the significant direct impacts, indirect

impacts, and cumulative impacts on the environment in the Driftless Area in southwest and central Wisconsin where the proposed large Cardinal-Hickory Creek transmission line and tall towers are proposed to be sited; and (5) conflicts with Wisconsin siting laws.

Date: January 6, 2017

Respectfully submitted on behalf of the
Driftless Area Land Conservancy by:

Handwritten signature of Howard A. Learner in black ink.

Howard A. Learner
Scott R. Strand
Rachel L. Granneman
Environmental Law and Policy Center
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Attorneys for the Driftless Area Land Conservancy

From: Kevin Thusius
To: comments@CardinalHickoryCreekEIS.us
Subject: Cardinal-Hickory Creek EIS
Date: Wednesday, January 04, 2017 3:57:22 PM
Attachments: [ATC Powerline Comment Letter Jan2017.pdf](#)

Please see the attached file with comments on the Cardinal-Hickory Creek EIS.

Thank you,
Kevin

Kevin Thusius
Director of Land Conservation



Ice Age Trail Alliance

2110 Main Street, P.O. Box 128, Cross Plains, WI 53528
608-798-4453 x 224 (p) • 800-227-0046 (p) • 608-798-4460 (f)

Working since 1958 to create, support and protect the Ice Age National Scenic Trail
Please join or renew today at www.iceagetrail.org

January 4, 2017

Mr. Dennis Rankin
Environmental Protection Specialist
U.S. Department of Agriculture, Rural Utilities Service
1400 Independence Avenue SW
Room 2244, Stop 1571
Washington, D.C. 20250-1571



Dear Mr. Rankin:

The Ice Age Trail Alliance (Alliance) has reviewed the Rural Utility Service's Notice of Intent to prepare an Environmental Impact State related to the potential impacts of Cardinal-Hickory Creek Transmission Line Project proposed by Dairyland Power Cooperative.

The Alliance's comments relate to the eastern portion of the proposed project roughly bound by the Cardinal Substation in Middleton and points west and south of the Village of Cross Plains and are limited to the effects of the proposal on the Ice Age National Scenic Trail (Ice Age Trail) and associated property interests.

The Ice Age Trail runs roughly northwest to southeast and would cross the proposed transmission line in the area of Stagecoach Road or CTH P in the Town of Cross Plains. The impact of the proposed line would be significant in several areas:

- 1) **Table Bluff Segment:** The Table Bluff Segment of the Ice Age Trail currently exists northwest of the Village of Cross Plains and bound by Scheele Road and Table Bluff Road. The northern option for the transmission line would cause significant negative user impact on the views from the Ice Age Trail along the bluffs of the Swamplovers Preserve. This Preserve is a 433-acre property owned privately but with a permanent conservation easement held by the Alliance. Federal Land & Water Conservation Funds, State Stewardship Funds, Dane County and private funds were all used to acquire this easement in 2005. The Alliance will obtain ownership in fee of the Preserve no later than 2025. The Preserve offers exceptional views of the Driftless Area, one of the important geologic stories interpreted by the Ice Age Trail. This is the view that would be interrupted by the transmission line.
- 2) **Cross Plains Segment:** The Ice Age Trail currently exists within the Village of Cross Plains, both along village streets and atop its limestone bluffs. The northern route of the proposed line would have a significant negative impact on the Ice Age Trail. The bluffs on the north side of the village offer excellent panoramic views to the south and a transmission line with the proposed specs would be in clear view. It is unclear if the northern route would be seen from the Ice Age Trail while along Black Earth Creek in the village, or if the southern route would impact the Ice Age Trail along this segment.

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- 3) Black Earth Creek Preserve: The Alliance owns a 36.7 acre property named the Black Earth Creek Preserve. It is located on the north side of Stagecoach Road. Federal Land & Water Conservation and State Stewardship Funds were used to acquire this property. Although no Ice Age Trail currently exists on this property, it is likely to host the Trail in the near future. The property also straddles Black Earth Creek, a class I trout stream, and several large spring ponds. Both the southern and northern proposals show the transmission line running along the Stagecoach Road corridor. The proposed line would have a very significant negative impact on the Preserve, the Ice Age Trail, and the creek and spring ponds.

- 4) Cross Plains National Scientific Reserve/Cross Plains State Park and State Ice Age Trail Areas (Complex): This 1,700 acre site is a complex of properties held by the National Park Service, Wisconsin Department of Natural Resources, Dane County and private landowners. The Ice Age Trail is yet to be developed on the Complex but plans are underway to begin the trail layout process. Both the southern and northern routes of the proposed transmission line (along Stagecoach Road) will negatively impact future Ice Age Trail and other uses on these properties. Furthermore the southern transmission line option running along CTH P would also have a negative impact on views from the state-owned and possibly the NPS-owned portions of the Complex.

The Alliance is extremely concerned about the proposed transmission line's impacts on the Ice Age National Scenic Trail. First, the Alliance is aware of the flat or negative trends in electrical use in the area and is not convinced the line is necessary to meet current and future electric needs in the area. Secondly, if a new line is proven to be necessary, then the Alliance proposes the southern option is utilized, and, that the line is buried in areas where it would be seen from the Ice Age Trail and the Complex.

We will continue to work with our partners at the National Park Service, town and village officials, and other non-profit organizations to seek all means of limiting the line's impact on the Ice Age National Scenic Trail.

If you have any questions on this matter, please contact me at the kevin@iceagetrail.org or (608) 798-4453, ext. 224

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Kevin Thusius".

Kevin Thusius
Director of Land Conservation

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IOWA CHAPTER

November 30, 2016

SWCA Environmental Consultants
Attn: Cardinal-Hickory Creek EIS
200 Bursca Dr
Suite 207
Bridgeville, PA 15017
Via Email to comments@CardinalHickoryCreekEIS.us

Re: Cardinal-Hickory Creek EIS

Dear Consultants:

The Iowa Chapter of the Sierra Club supports using the existing transmission line easements and Mississippi River crossings near Cassville, Wisconsin, for the Cardinal-Hickory Creek project. This is preferable to acquiring and creating a new easement. Although this crosses the Upper Mississippi River National Wildlife Refuge, there are limited numbers of locations where a transmission line can cross.

ITC has consulted with our organization about the route in Iowa. We believe that they have done an excellent job of avoiding natural areas and significant wildlife habitat. We appreciate the planning work that ITC has done in Iowa.

We encourage you to discuss in the Environmental Impact Statement (EIS), Purpose and Need Section, giving a preference to renewable energy on this transmission line.

We also encourage you to describe and discuss how this project fits into a robust electric transmission grid, as part of the EIS. We realize Midcontinent Independent System Operator (MISO) has already done some of the work on this and that work can be incorporated into the EIS.

Sincerely,

/s/ Pamela Mackey Taylor

Pamela Mackey Taylor
Conservation Chair of the Iowa Chapter of the Sierra Club

From: [Nathaniel Baer](#)
To: dennis.rankin@wdc.usda.gov
Cc: comments@CardinalHickoryCreekEIS.us
Subject: Comments RE: CHC EIS scoping
Date: Friday, January 06, 2017 5:09:53 PM
Attachments: [CHC EIS Scoping IEC Comment 1.6.17.pdf](#)

Mr. Rankin and SWCA Environmental Consultants:

Please find attached a comment letter in response to the USDA RUS notice of intent to prepare an Environmental Impact Statement for the Cardinal-Hickory Creek Transmission Line Project.

Thank you for the opportunity to provide comments and please let me know if you have any questions.

Nathaniel Baer
Energy Program Director | Iowa Environmental Council
521 E Locust, Suite 220 | Des Moines IA 50309
Cell: 319-321-8449 (preferred) | Office: 515-244-1194 x206

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January 6, 2017

By Electronic Mail

Dennis Rankin
Environmental Protection Specialist
U.S. Department of Agriculture
Rural Utilities Service
1400 Independence Avenue SW., Room 2244, Stop 1571
Washington, DC 20250-1571
dennis.rankin@wdc.usda.gov

RE: Dairyland Power Cooperative: Notice of Intent to Prepare an Environmental Impact Statement and Hold Public Scoping Meetings

Dear Mr. Rankin:

We are submitting these comments in response to the Notice of Intent to Prepare an Environmental Impact Statement (EIS), as published in the Federal Register on October 18, 2016 by the USDA Rural Utilities Service regarding the Cardinal-Hickory Creek (CHC) Transmission Line Project.

The Iowa Environmental Council (Council) is a statewide, Iowa-based, non-partisan and non-profit 501(c)(3) corporation with a mission of achieving a safe, healthy environment and sustainable future for Iowa. The Council has over sixty organizational members and hundreds of individual members across Iowa. The Council was formed over twenty-five years ago and has focused on increasing clean energy in Iowa for over a decade.

Iowa has an abundant wind energy resource and accessing this resource is a major option to improve the economy and environment in Iowa, including much of rural Iowa. We recognize that utilizing Iowa's wind resource will require the development of high voltage transmission lines. We appreciate the substantial economic and environmental benefits that wind energy offers and recognize that additional transmission lines will enable more wind and more of these benefits. We believe there must be a balance between the environmental benefits of wind generation and the environmental impacts of needed transmission lines. With a proactive and inclusive transmission planning, siting, routing, and mitigation process, we can achieve this balance.

Background on the Council's previous involvement in CHC project routing and support of Mississippi River crossing options

We have worked closely with utilities and transmission developers on the siting and routing of transmission lines in Iowa, including the Cardinal-Hickory Creek project. We appreciate ITC Midwest's willingness to engage with our organization, as well as our partner organizations and other stakeholders, on siting, routing, and potential mitigation needed for the Iowa portion of CHC over the past several years.

During this process, ITC Midwest provided a number of Iowa environmental and conservation organizations, including the Council, with study area maps highlighting identified potential crossing options for the Mississippi River as well as the relevant substations in Iowa and Wisconsin that must be connected by the transmission project. In addition to reviewing maps, our organizations had the opportunity to visit potential crossing locations in-person, to submit written comments on siting and routing options to ITC Midwest, and to meet with ITC Midwest staff on multiple occasions to discuss the project. The Alternatives Crossing Analysis (ACA) prepared in April 2016 and the Macro-Corridor Study (MCS) prepared in September 2016 notes or documents some of this involvement.

During the Council's review process, we have indicated support for the two identified Mississippi River crossing options near Cassville, Wisconsin. In the ACA and MCS, these are referred to as the Nelson-Dewey and Stoneman crossing options. Our support for these crossing options recognized several benefits. These benefits include the use of existing transmission right-of-way and infrastructure for the Mississippi River crossing itself as well as the use of existing transmission right-of-way and infrastructure for significant stretches of the transmission line outside of the River crossing, but not available if other crossing locations were used.

We agree with the major conclusion of the ACA and MCS that the preferred crossing locations are the Nelson-Dewey and Stoneman options. We appreciate the thorough and detailed review that was involved in producing both the ACA and MCS. We recognize that an expanded infrastructure project, such as this transmission line, in the Mississippi River National Wildlife Refuge is a serious undertaking. Given the thorough siting and routing analysis, the limited options for crossing outside of the Refuge, and the broader economic and environmental benefits from expanded access to wind generation, we are supportive of the use of the Refuge for the Nelson-Dewey and Stoneman crossing options.

Council recommendations for scoping for the EIS

For the scoping of the EIS, we strongly encourage USDA RUS to include and evaluate the positive relationships between the CHC transmission project, an expansion of wind generation in the footprint of the Midcontinent Independent System Operator (MISO), and the economic and environmental benefits from this increase in wind generation.

The CHC project is one of a number of Multi-Value Project (MVP) transmission lines that were identified by MISO to meet reliability, economic, and renewable energy needs. According to MISO, the full portfolio of MVP lines would enable significant wind generation (41 million megawatt-hours according to MISO's *Multi Value Project Portfolio*, January 2012). The CHC project, also known as MVP 5, would improve the flow of wind energy in the region, including from Iowa into Wisconsin. The CHC project, similar to the whole portfolio of MVP lines, is a critical step in the process of increasing use of wind energy in the region.

Wind energy's economic benefits in Iowa are both clear and substantial and include jobs, benefits to rural landowners and rural parts of Iowa, and consumer savings. Expanding wind generation will increase and expand these benefits in Iowa. Currently, up to 7,000 Iowans are employed in the wind industry, including manufacturing, operations and maintenance, construction, engineering, and many other sectors. Land lease payments currently total nearly \$20 million annually and are expected to double to approximately \$40 million annually by 2020, once several planned wind projects are completed. Most or all of these land lease payments are made to farmers and rural landowners in rural Iowa. Wind is becoming a leading source of property tax revenue in counties with significant wind energy construction, which are again Iowa's rural counties. In such counties, property tax revenue from wind helps counties pay for schools, roads and bridges, and critical health services.

Finally, wind energy is saving consumers money. A recent report from the American Wind Energy Association found that adding an additional 10,000 MW of wind energy, beyond what is already built and planned, would save consumers \$12.6 billion on net over twenty-five years (*The Consumer Benefits of Wind Energy in Iowa*, October 2016). These savings are due in part to the low cost of wind generation, particularly in the Midwest, compared to other sources of generation. According to Lazard's *Levelized Cost of Energy Analysis* (version 10.0, released December 2016), wind energy has the lowest levelized cost of new electric generation, even without federal tax incentives, compared to other alternatives (e.g., new coal, nuclear, natural gas combined cycle, etc.). Lazard's regional analysis further indicates that the Midwest is the lowest cost region for new wind energy.

In addition to direct economic benefits, wind energy is a zero-emissions source of electric generation that will improve Iowa's and the region's environment. While Iowa has made significant progress on wind energy and now generates over 30% of its electricity from wind, coal still accounts for over 50% of electricity generation. All coal is imported and is a major source of air pollutants in Iowa, including nitrogen oxides, sulfur dioxide, and carbon dioxide. Further reducing the use of fossil fuel generation in Iowa and surrounding states by increasing wind energy will provide cleaner air and water and mitigate climate change. These environmental improvements will benefit the Mississippi River National Wildlife Refuge as well as the full corridor of the CHC project, including both environment and public health benefits.

In our review of the CHC project to date, we believe that the economic and environmental benefits from wind generation that is associated with CHC balance any local environmental impacts from the CHC project. We are also assured by ITC Midwest's due diligence in evaluating siting and routing options and working with environment and conservation stakeholders to date as well as the opportunity to work with ITC Midwest in the future to mitigate any impacts that cannot be avoided in the siting and routing process. We encourage USDA RUS to move forward on the Environmental Impact Statement process as expeditiously as possible in order to allow the CHC transmission project – and the wind energy that relies on it – to begin construction as soon as possible.

We appreciate the opportunity to comment at this stage in the EIS process. If there are questions about this letter, please feel free to follow up with me at baer@iaenvironment.org or 319-321-8449 (cell).

Sincerely,

/s/ Nathaniel Baer

Nathaniel Baer
Energy Program Director
Iowa Environmental Council

cc: SWCA Environmental Consultants, comments@CardinalHickoryCreekEIS.us

From: [Allen Gleckner](#)
To: comments@CardinalHickoryCreekEIS.us
Cc: [Beth Sohlt](#); [Tyler Huebner](#); [Leigh Currie](#)
Subject: Cardinal Hickory Creek project EIS scoping comments
Date: Friday, January 06, 2017 4:37:53 PM
Attachments: [CHC Clean Energy Orgs Federal EIS Scoping Letter 1-6-17.pdf](#)

Hello - Please find the attached comments regarding the Cardinal Hickory Creek project EIS scope from Fresh Energy, Wind on the Wires and RENEW Wisconsin.

Thanks,
Allen

Allen Gleckner
Director, Energy Markets
Fresh Energy

651.726.7570 *direct* | 612.554.3291 *cell*
gleckner@fresh-energy.org

www.fresh-energy.org

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January 6, 2017

SUBMITTED VIA EMAIL

comments@CardinalHickoryCreekEIS.us

Re: Scope of EIS for proposed Cardinal-Hickory Creek Transmission Line Project

To Whom It May Concern:

Wind on the Wires (“WOW”), Fresh Energy, and RENEW Wisconsin provide these comments to the Rural Utility Service (“RUS”) on the scoping of the Environmental Impact Statement for the proposed Cardinal Hickory Creek transmission line. These are nonprofit organizations working to support a transition to a clean energy future. Integral to this transition is the development of the Cardinal Hickory Creek transmission line project.

The Cardinal Hickory Creek Project is Designed to Support Additional Clean Energy Resources

The Cardinal Hickory Creek Project is part of a portfolio of multi-value projects (“MVPs”) in the Midcontinent Independent Transmission System Operator (“MISO”) footprint, which includes Iowa and Wisconsin. MVPs were identified by MISO to, among other things, accommodate the Renewable Energy Standards (“RESs”) adopted by many states, including 11 MISO states in the upper Midwest.¹ MISO’s 2014 analysis of the MVP portfolio found that “the MVP Portfolio enables a total of 43 million [megawatt hours] of renewable energy to meet the renewable energy mandates through 2028.”² Many resources in the MISO footprint require adequate transmission facilities to deliver energy to where it is needed. Some of the best wind resources are located in more sparsely populated areas that require sufficient transmission facilities, such as the Cardinal Hickory Creek Project, to deliver that wind power.

The MISO interconnection queue currently includes thousands of megawatts (“MW”) of proposed wind projects that are in various stages of development and many of them are in the region that the Cardinal Hickory Creek Project will serve. As of April 2016, 1,031 MWs of wind in the MISO interconnection queue had a requirement of the Cardinal Hickory Creek transmission line in their Generator Interconnection Agreements. A significant amount of new wind and solar projects have entered the MISO queue since mid-2016. Subsequent interconnection studies assume the Cardinal Hickory Creek transmission line is in service and

¹ The MISO portfolio of MVP transmission lines by their very definition, provide multiple benefits including enhancing regional reliability, reducing congestion, interconnecting and delivering renewable energy to satisfy state public policy goals and requirements, and providing access to cost effective resources creating an efficient wholesale energy market across the MISO footprint.

² MISO MTEP 2014 MVP Triennial Review (September 2014) at 24, *available at*: https://www.misoenergy.org/_layouts/MISO/ECM/Redirect.aspx?ID=185222

include it in the MISO study model. Therefore, the Cardinal Hickory Creek Project will allow needed wind projects like those currently in MISO's queue to move forward and will increase the amount of wind energy available for states to meet existing RESs. Without the Cardinal Hickory Creek line, alternative transmission upgrades would be needed to accommodate the interconnection of the growing amount of new renewables that are in the MISO queue.

The Environmental Benefits of Additional Renewable Energy Must Be Considered

Using larger amounts of wind energy results in direct reductions in coal and natural gas use and corresponding reductions in power plant air emissions, water use, and various environmental impacts associated with producing and transporting those fuels. Air emissions associated with fossil fuel production and consumption include the greenhouse gases carbon dioxide ("CO₂") and methane, particulate matter, sulfur dioxide, nitrogen oxides, mercury and other hazardous air pollutants.

The direct and indirect reduction of these emissions should be included in the RUS' NEPA analysis. On August 1, 2016 the Council on Environmental Quality ("CEQ") issued *Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews*. This guidance is attached for inclusion in the record. In sum, the guidance states:

Consistent with NEPA, Federal agencies should consider the extent to which a proposed action and its reasonable alternatives would contribute to climate change, through GHG emissions, and take into account the ways in which a changing climate may impact the proposed action and any alternative actions, change the action's environmental effects over the lifetime of those effects, and alter the overall environmental implications of such actions.³

MISO's MVP Report⁴ quantified the CO₂ emissions reductions associated with the full MVP Portfolio. That report found the increased use of wind energy would reduce MISO's CO₂ emissions by between 8.3 million and 17.8 million tons annually, depending on the scenario analyzed. Wind also plays an important role in offsetting water consumption of other forms of electricity generation. Wind energy requires virtually zero water, while most conventional forms of electricity generation consume hundreds of gallons of water per megawatt-hour produced. A Department of Energy ("DOE") report concluded that a U.S. energy portfolio that derives 20%

³ At 9.

⁴ MISO MVP Report at 78, available at:

<https://www.misoenergy.org/Library/Repository/Study/Candidate%20MVP%20Analysis/MVP%20Portfolio%20Analysis%20Full%20Report.pdf>.

of its energy from wind would save 4 trillion gallons of water through 2030.⁵ As such, reducing the use of fossil fuel generation in Iowa, Wisconsin, and surrounding states by increasing wind energy will provide cleaner air and water and mitigate climate change. These environmental improvements will benefit the Mississippi River National Wildlife Refuge as well as the full corridor of the Cardinal Hickory Creek project.

The undersigned organizations submit these comments to respectfully request that the Rural Utility Service to include these environmental benefits when analyzing the impact of the Project in the Draft and Final Environmental Impact Statements (“EIS”). The EIS should consider the direct benefits to human health and the environment due to the reduction in greenhouse gas and harmful air emissions that will result from the Project; and the EIS should also consider the economic benefits that flow from these emission reductions. In addition to the CEQ guidance, there are tools used by the federal government to quantify these benefits, such as the federal Social Cost of Carbon⁶ and the Environmental Protection Agency’s Avoided Emissions and Generation Tool (“AVERT”)⁷ that allow the economic benefits of emissions reductions to be readily calculated. In order to fully capture and evaluate the full suite of impacts of the Cardinal Hickory Creek Project, the environmental and economic benefits of the increased wind energy that will be developed due to the Project must be included in the scope of the EIS.

Thank you for your consideration of these comments and we look forward to working with the agencies and other interested parties throughout this proceeding.

⁵ U.S. Dep’t of Energy, “Impacts of a 15-Percent Renewable Portfolio Standard” at v (June 2007), available at: <ftp://ftp.eia.doe.gov/service/sroiaf%282007%2903.pdf>.

⁶ Most recently updated figures available at: <http://www.whitehouse.gov/sites/default/files/omb/assets/inforeg/technical-update-social-cost-of-carbon-for-regulator-impact-analysis.pdf>.

⁷ Available at: <http://epa.gov/statelocalclimate/resources/avert/index.html>.

Date: January 6, 2017

Respectfully submitted,

/s/ Leigh K. Currie

Leigh K. Currie

Minnesota Center for Environmental Advocacy

26 E. Exchange Street, Suite 206

St. Paul, MN 55101

Tel: 651-287-4873

lcurrie@mncenter.org

Attorney for Wind on the Wires and Fresh Energy

/s/ Tyler Huebner

Tyler Huebner

Executive Director

RENEW Wisconsin

222 S. Hamilton St,

Madison, WI 53703

Tel: 608-255-4044 ext 1

tyler.huebner@renewwisconsin.org

From: [Chris Kirkpatrick](#)
To: comments@cardinalhickorycreekeis.us
Subject: Comments on Cardinal Hickory Creek EIS
Date: Friday, January 06, 2017 2:56:05 PM
Attachments: [TPE Cardinal Hickory EIS Signed Scope Statement.pdf](#)

Good afternoon,

Attached is a formal comment from The Prairie Enthusiasts regarding the Cardinal Hickory Creek EIS for the initial scope of the project. If you could please confirm with me that you have received our comment, I would greatly appreciate it.

Sincerely,

Christopher J. Kirkpatrick
Executive Director
The Prairie Enthusiasts
110 S. Main St. P.O. Box 824
Viroqua, WI 54665
608-638-1873
ExecutiveDirector@ThePrairieEnthusiasts.org



January 6, 2017

SWCA Environmental Consultants
Attn: Cardinal-Hickory Creek EIS
200 Bursca Drive
Suite 207
Bridgeville, PA 15017

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Jerry Pedretti
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Dear SWCA Environmental Consultants,

The Prairie Enthusiasts (TPE) is making comments regarding the Environmental Impact Statement (EIS) that has been initiated for the proposed Cardinal-Hickory Creek transmission line in southwest Wisconsin. TPE's mission is that we seek to ensure the perpetuation and recovery of prairies, oak savannas, and other associated ecosystems in the upper Midwest through management, protection, restoration, and education. In carrying out this mission over the past 30 years TPE has purchased over 2,000 acres and holds conservation easements on an additional 1,000 acres. The majority of this land lies within the same region as the proposed transmission line.

TPE is concerned that all land conserved by non-profit land conservation organizations are included in the scope of the EIS. Our organization was very concerned when the American Transmission Company had their original public sessions in 2016. Even though many areas of their maps noted "conserved land" one of our highest quality sites, Pleasant Valley Conservancy in Vermont Township, Dane County, WI which we own part of and hold conservation easement on was not included, and the proposed northern route includes 100% of this property. Not only is this site owned by TPE, but it is a dedicated State Natural Area and is enrolled in the WI Knowles Nelson Stewardship Program. These omissions are very concerning to our organization and its members.

We are asking for all conserved land be included within the scope of the EIS being initiated. This includes all lands owned and all private conservation easements held by non-profit land conservation organizations. In addition that all State Natural Areas and land enrolled into the WI Knowles Nelson Stewardship Program be included in the scope of the EIS. This would be in addition to federal, state, county, or municipally owned conservation or public recreation land.

Sincerely,

Chris Kirkpatrick
Executive Director

Grassroots Conservation in Action!

From: Duke Welter
To: comments@CardinalHickoryCreekEIS.us
Subject: Re: Comments of Trout Unlimited Regarding EIS for Cardinal-Hickory Creek Proposal
Date: Thursday, January 05, 2017 11:54:56 AM
Attachments: [image009.png](#)

January 5, 2017

SWCA Environmental Consultants

Attn: Cardinal-Hickory Creek EIS

To Whom It May Concern:

Trout Unlimited (TU), through the Driftless Area Restoration Effort (DARE) submits a number of concerns about the proposed Cardinal Hickory Creek electrical transmission line.

TU is a national organization with over 160,000 members. Wisconsin Trout Unlimited has nearly 5,500 members organized in 21 chapters across the state. In Iowa, Grant and Dane Counties, TU is represented by the Harry & Laura Nohr Chapter and the Southern Wisconsin Chapter. DARE is a region-wide restoration project across the entire unglaciated area of southwestern and west central Wisconsin, southeastern Minnesota and Northeast Iowa. TU's mission is to preserve, protect and restore America's coldwater streams and rivers, to develop healthy fisheries that allow our children and grandchildren to enjoy trout resources across their historic range.

To those ends, TU works to develop policies that further its mission, at the state and national levels, to teach people about our coldwater resources, to restore degraded waters, and to protect coldwater systems from ill-considered human impacts.

Consultants hired by TU have studied the economic impact of recreational angling on the Driftless Area's communities. Annually, over \$1.1 billion in direct and indirect impacts take place as a result of angling, and over 6,500 jobs arise from that activity. If we squander those resources for unwise infrastructure projects, some of that impact will be lost as people find trout streams unproductive or to have lost their aesthetic appeal. 70-story

transmission towers will greatly reduce that appeal.

The area proposed for the Cardinal-Hickory Creek line is rich in trout resources. Grant, Iowa and Dane have over 425 miles of classified trout waters. These represent our cleanest, coldest streams and springheads, a tiny fraction of the earth's surface waters and a fragile resource. They are susceptible to unwise land use practices, the historic curse of the entire Driftless Area, sedimentation, nutrient fluxes, and more recently temperature changes and other impacts of climate change. Trout Unlimited, in its work across the region, strives to mitigate poor land use and change unwise policies that impact these streams.

Transmission lines in other areas have impacted many streams. Poor construction practices and unauthorized dams and other structures have blocked streams and poured sediment into them. Sediment clogs the riffles where much of a trout's food lives and where most reproduction takes place. It fills pools trout need for refuge and wintering habitats, and crowds out natural vegetation essential to healthy trout streams.

The proposed line locations pose a serious hazard to numerous trout streams, including some considered to be among the best in the state. The Blue River, Blue Mounds Creek, Sugar River and Black Earth Creek are widely valued by anglers and boast good habitat, healthy trout populations and abundant public access. The proposed routes would cross the following trout streams: Baker Creek, Black Earth Creek, Blue River, Conley Lewis Creek, Deer Creek, E. Br. Blue Mounds Creek, Elvers Creek, Flint Creek, Fryer's Feeder, Garfoot Creek, German Valley, Gordon Creek, Lowery Creek, Narveson Creek Norwegian Hollow Creek, Otter Creek, Schlapbach Creek, Smith Conley Creek, Sudan Branch, Sugar River, Tributary to Williams-Barneveld Creek, Vermont Creek, W. Br. Blue Mounds Creek, and West Branch Sugar River. Many of these are Exceptional or Outstanding Resource Waters, a DNR classification warranting extra protections for high quality waters.

What are the threats posed by this transmission line project? The aesthetic impacts are obvious. In addition, construction vehicles and runoff from the construction of concrete bases can rip up protective vegetation and change runoff patterns in low-lying areas. Poorly placed silt fencing allows heavy sediment to feed into streams. With the observed increase in intense rain events in this area in the past decade, we have seen heavy flooding and damage

on an annual basis. Adding a massive construction project through this area should not be permitted without extensive evaluation of watershed impacts, pre-permit monitoring and requirements for widespread use of buffering techniques to protect these waters. Possibly it should not be permitted at all.

We request that these concerns be specifically addressed in the Environmental Impact Statement for the Cardinal-Hickory Creek line proposal. Thank you.

Sincerely,

John W. (Duke) Welter



"Helping to Restore the Spring Creeks of the Driftless Area"

Duke Welter / TU Driftless Area Restoration Effort (DARE) Outreach Coordinator
dwelter@tu.org / 715-579-7538

Trout Unlimited
223 South Rusk Avenue, Viroqua WI 54665
<http://www.tu.org>





David Reinhart <comments@cardinalhickorycreekeis.us>

Dairyland Power Cooperative's application for RUS support.

2 messages

Michael McDermott <mmcdermott7862@sbcglobal.net>

Thu, Jan 5, 2017 at 12:47 PM

Reply-To: Michael McDermott <mmcdermott7862@sbcglobal.net>

To: "comments@CardinalHickoryCreekEIS.us" <comments@cardinalhickorycreekeis.us>

I am Michael McDermott. I live in Town of Vermont, Dane County, Wisconsin. I am the chair of the Vermont Citizens Powerline Action Committee, appointed as such by the Town chair.

I am concerned about many aspects of the Cardinal Hickory Creek transmission line. My property is within the northern corridor of one of the two proposed routes for the line.

My concerns include the areas of a) property values; b) loss of endangered habits particularly those related to groundwater, wetlands and important creeks; c) impact on fish and plants in those areas; d) demonstration of need for the line; e) cost of the line for years to come; f) the line taking away resources of increasing energy efficiency, load management and local generation and distribution; g) impact on tourism and recreational activities in the area and finally the process which does not include any real analysis of non-transmission alternatives given that all such analyses are presumed to be within the transmission based paradigm.

This last dooms any consideration of such alternatives. In discussion with principals of Dairyland Power Cooperative, SWCA, and RUS there was admission that all considerations were based on acceptance of transmission dominant analysis. Modeling and all other analyses were based on this acceptance. Resources and expertise are not planned for non-transmission alternatives outside of this paradigm and as above this is acknowledged in all "town hall" and scoping meetings held to date.

The only analysis that supports need is that done based on MISO's figures, other estimates do not support this need and when the same resources are put into non-transmission alternatives these support both sufficient supply and more than adequate use. Electricity demand growth is near flat and contradicts MISO's figures and does not support the need for the line.

The proposed northern route cuts through valuable wetlands along Hwy F between south of the intersection of F and FF and north of the DNR designated fishing area near Swetler Road. Though for the moment the area of the Pleasant Valley conservancy has been excluded in the most recent version the wetland west of PVC in the area described is directly in the route. This is an extensive wetland of many hundreds of acres and is wider than the maximum distance between transmission towers thus requiring placement of towers within the wetland itself. There are many endangered and threatened species in this area including purple milkweed, glade mallow, and woodland boneset. The wetland feeds Elver's Creek which then goes into East Blue Mounds Creek and into Black Earth Creek, a class one trout stream.

Property values near or even some distance from the line. Neighbors have been told by their realtors that in planning to sell they must disclose the planned line and have been warned that this will lower the potential sale price.

The area is important to local tourism and activities as motor cycle and bicycling. These would be impacted by the line. The line will increase utility bills for years to come for no real benefit except to the investors.

For these reasons the line not only should not go through the Town of Vermont but should not be built at all. Almost all of these points also apply to the southern route proposed for the line. Cost, need, dismissal of alternatives, and impact on property values clearly apply regardless of specific route.

In particular the RUS should not support the application of Dairyland Power Cooperative for load support for these reasons.

Thank you for your consideration.

Michael McDermott
Vermont Citizens Powerline Action Committee

Comments <comments@cardinalhickorycreekeis.us>
To: Adrian Hogel <AHogel@swca.com>

Thu, Jan 19, 2017 at 2:46 PM

[Quoted text hidden]

From: Laurie Gauper
To: comments@CardinalHickoryCreekEIS.us
Subject: CHC EIS Comments
Date: Monday, January 02, 2017 9:04:42 PM
Attachments: [Voytovich Gauper CHC EIS.pdf](#)
[Untitled attachment 00594.htm](#)

Please see attached pdf file

Hard copy will also be mailed through USPS.

Laurie Gauper and Marta Voytovich

Wisconsin **COUNTS** (Citizens Opposed to Unnecessary Transmission Lines)

January 2, 2017

Thank you for this opportunity for us to provide our comments on the environmental impact of the American Transmission Company (ATC) Cardinal Hickory Creek (CHC) project.

IMPACT ON DRIFTLESS ECOLOGY

Per US Fish and Wildlife Service (USFWS), it is estimated that 97% of listed species throughout the Driftless Area in Wisconsin live on private lands. Without involvement of landowners, the obstacles to successful conservation management are huge. Landowners make this conservation possible. (Joanna Gilkeson, USFWS)

For nearly three decades, our land has been a private wildlife sanctuary, providing habitat protection in an internationally recognized, unique landscape, the irreplaceable Driftless Area. This private wildlife sanctuary provides habitat for bobolinks and other ground nesting birds who depend on safe grassland space and safe airspace, and we have spent years enriching their habitat to promote the success of their fledglings. Among other habitat observations, milkweed (possibly even purple milkweed) and diverse butterfly populations have increased. Part of our habitat restoration plan has been to eliminate herbicide and pesticide application. Another aspect of our habitat restoration plan for this wildlife sanctuary has been to add to it with neighboring acres, when given the opportunity. We did so in keeping with our active conservation efforts for the unique habitats in the driftless area of Wisconsin. It has been a challenge to simultaneously support conservation efforts with the agricultural needs of a local farm family whose small herd depends on the harvest from this land, but we make the acres they need available as long as their need continues.

To balance acreage use in agriculture, we set aside areas to remain undisturbed, and undisturbed perimeter vegetation is a vital aspect of our wildlife conservation. It has been maintained to provide, among other benefits, perches for feeding fledgelings, to preserve important wildlife food sources, and also as shading and windbreak. ATC would completely remove this actively living perimeter, replacing it with a massive physical barrier, deterring the wildlife we have encouraged for decades, and adding risks of compounding electromagnetic radiation, stray voltage, and electrocution. The wall of wires would be just at the level of the flight of Sandhill cranes, some of which return to this hilltop annually.

This private wildlife sanctuary includes branching v-shaped valleys, key to the Driftless Area, and the undisturbed perimeter vegetation would not only be replaced by a wall of wires, but regrowth would be suppressed by endless herbicide use. The runoff into delicate ecosystems of the valleys, possibly karst landscapes, would be devastating. Ecological Landscapes of Wisconsin, a

Department of Natural Resources (DNR) publication, indicates that special surveys are still needed to locate and identify the unmapped unique slopes and cliffs of the Driftless Area.

We have enriched the habitat of other birds, in particular barn swallows, observing and responding to their needs. We are witness to generations of bobolinks, swallows and goldfinches, to name just a few of the diverse bird species thriving here. Their success depends on open spaces with welcoming vegetation. This community is perfectly suited for encouraging Driftless Area Wisconsin wildlife. Grouse and Whip-poor-will can be heard here regularly. Other birds we have seen include Common Nighthawks, Pileated Woodpeckers, Eastern Meadowlarks and Western Meadowlarks, and we have heard the song of what we believe may be the Henslow's Sparrow. This acreage is part of a rural neighborhood of ridge and valley, where wildlife can thrive away from the barriers of nocturnal noise, excessive light and the certain death of highway collision. Transmission lines are incompatible with this wildlife habitat, and they would cause irreparable, permanent destruction and permanent wildlife habitat fragmentation.

We welcome impartial ecologist scientists to spend time with us here, to see the ecological richness of this acreage from direct observation on the ground. For nearly three decades, we have walked or hiked in snowshoes on the perimeter and throughout this land each and every day, mostly twice a day. Over this period, we have directly observed rich, diverse wildlife activity, and if ecology was our profession, the three short months we have been given to provide Rural Utility Service (RUS) and SWCA our comments might have been enough time to offset the argument ATC has given you that this sanctuary, still relatively free of permanent human barriers, can be sacrificed. This land provides a sorely needed opportunity to reduce habitat fragmentation and isolation and to increase ecological connectivity, a stated DNR consideration (PUB-SS-1131X 2015). Could it be, that despite the undoubtedly unique habitat of the Driftless Area, despite our active commitment to habitat protection, and the very clear Wisconsin siting law specifications, the smaller number of people along this path who would object to confiscating our land makes us the easier target?

IMPACT ON CULTURE

Ridgetops of this neighborhood are in a community of people who actively value driftless ecology. It is the objective of the Town of Vermont to recognize and respect the natural environment as an irreplaceable resource. The culture of citizens of Town of Vermont is reflected in a Comprehensive Plan to make "land-use decisions that respect the rights of landowners while preserving and enhancing those qualities that make the town a special place to live and work." This Plan has the explicit goal of protecting the environment, including a detailed Ridgetop Protection Plan (see 10.4 Ridgetop Protection). A massive wall of high

voltage wires across large tracts of ridgetop Wisconsin Driftless area land in and beyond Town of Vermont, in sites free of highways or high buildings, would flagrantly disrespect the culture of this community. Per the Town of Vermont Comprehensive Land Use Plan, structures are to be designed and located so they are compatible with their surroundings, and our community members are held to this standard.

Even during this planning stage for CHC, our neighborhood is deeply affected by ATC's threat of degrading this beloved land. We all have responsibilities to our professions as well as to our families. The upheaval of likely land seizure, of land condemnation, the very land so dear to people in the Town of Vermont, is already leaving a long-lasting, damaging impact to this human environment. Shouldn't this be a key feature of an environmental impact statement?

ELECTRICITY

During a scoping meeting conversation, an engineer from RUS cavalierly stated that CHC will not bring electricity to this community, it is destined for Chicago. We have family in Chicago, and we would not wish to deprive them or anyone of electricity. It is disingenuous to say that urban centers need electricity transmitted for hundreds of miles, destroying Driftless ecology to get there. Electricity can be generated and distributed much, much closer to urban centers. We very much doubt such a project would be proposed without the guaranteed subsidy, the 10 percent donation, of ratepayers.

This ecological damage to the Driftless Community is not necessary. Improvements and new developments in renewable electricity generation and storage are fast becoming available to all communities at whatever scale necessary. Just one example, on this single Dane County hilltop, there is wind to power a turbine, documented by a wind study we obtained during the planning stage of our conservation plan to provide enough power for us and our neighborhood. However, given the legal obstacles (which could be easy to remove) greatly favoring large over small scale, we had to abandon that plan. Lake Michigan winds can power turbines (wind and wave), and there are a few rooftops in Chicago.

When we told an SWCA employee at the scoping meeting that we very much care about providing our community with renewable electricity, having installed solar panels, we were dismissed as unusual, since "other people do not have the same resources" which is not true. This is about values and about how we choose to use our limited resources. If the same millions were guaranteed to any community (including Chicago) as they are to ATC, we would have a sufficient, reliable and catastrophe-resisting grid. Why would there be limits or impediments to public citizens or small business owners who, like us, want to contribute to the local grid? An impartial cost-to-benefit analysis, comparing full

promotion and rewarding of community participation (including - as just one example - the involvement of farmers - providing them with incentives for manure digestors, solar panels, wind turbines), would inevitably compare favorably, if given an identical multiyear effort and a multimillion investment with a guaranteed return on the investment to the one provided to ATC (who would merely transmit the electrons, not actually produce any electricity).

If the tone of this comment statement seems angry, that is because any normal people would be angry when they have worked for three decades to lovingly tend to an irreplaceable ecosystem, and who supported this community economically, contributing hundreds of thousands of dollars in property taxes over those years. This sanctuary is a visible success. ATC has threatened to destroy this unique and fragile ecosystem, free of permanent barriers to wildlife. ATC has threatened to seize the private property of people in my community, deciding how that land will be used for generations. Not only has the need for this expensive project not been proven, with costs of many kinds, but the legally specified routing priorities are completely disregarded here, apparently not applicable to ATC.

Per SWCA Vision: integrity as individuals and a company in our business practices and scientific endeavors; accountability on the part of our employees to deliver on their commitments to SWCA, our clients, and our communities; creativity in developing solutions to challenges encountered by our clients. SWCA has been selected and employed by RUS, which is part of the United States Government, and we citizens are your clients. To determine that hard working, dedicated community members in a unique ecological landscape must have their land seized for private gain without a serious, impartial, in-depth comparison to nontransmission alternatives does not seem consistent with the SWCA vision.

As Bryan Norton of the WDNR states, "the value of biodiversity is more than the sum of its parts." Wisconsin's heritage includes conservationists John Muir, Aldo Leopold, Gaylord Nelson to name perhaps the best known, though there are countless people who work for the same goals in Wisconsin's rich and beautiful ecological communities. Allowing a permanent wall of wires, serviced by massive motorized equipment, including low flying helicopter traffic, across these unspoiled Driftless Area lands, to bring monopolized electricity to places which have local options, desecrates Wisconsin's heritage.

Marta Voytovich and Laurie Gauper
9637 Roberts Road
Black Earth, WI 53515

From: Paul Heinen
To: comments@CardinalHickoryCreekEIS.us
Subject: The Nature Conservancy Comment Letter on the proposed Cardinal-Hickory Creek Line
Date: Friday, January 06, 2017 1:18:23 PM
Attachments: [Cardinal-Hickory comments.docx.doc](#)

Please accept the WI TNC's comments on the proposed power line. If you have any questions feel free to call Paul Heinen, 608-316-6412.

Thanks You

Paul Heinen
State Government Relations Director
Wisconsin Nature Conservancy



633 West Main Street
Madison, Wisconsin 53703

(608) 251-8140
nature.org/wisconsin

SWCA Environmental Consultants (USDA Rural Utility Service)
Attn: Cardinal-Hickory Creek EIS
200 Bursca Drive
Suite 207
Bridgeville, PA 15017

Thank you for this opportunity to submit comments on the proposed Cardinal-Hickory Power Transmission Line as SWCA prepares its EIS. The Nature Conservancy in Wisconsin has concerns with the potential impact the infrastructure of a new power line could have on important conservation lands in Southwest Wisconsin.

Since 1964, the Conservancy's Military Ridge Prairie Heritage Area (MRPHA), located in Dane, Iowa and Green counties, has ensured the protection of high value conservation lands and their corresponding plant and animal species. The area contains more than 100 small prairie remnants on ridgetops too rocky to plow, representing one of the highest concentrations of native grasslands in the Midwest. It also contains the headwaters of the Pecatonica and Sugar rivers and many high-quality trout streams. Military Ridge is one of three focus areas in a larger project called the Southwest Wisconsin Grassland and Stream Conservation Area (SWGSCA).

The agricultural history of this area made it possible for plants and animals like the regal fritillary butterfly, or grassland birds such as the bobolink, upland sandpiper and grasshopper sparrow which have disappeared in more developed parts of the Midwest, to survive.

Less than one-tenth of one percent of Wisconsin's original prairie landscape remains, and southwest Wisconsin has been identified as the highest priority for landscape-scale grassland protection and management in Wisconsin by the Wisconsin Department of Natural Resources.

Residential development, especially on ridge tops; invasive species and incompatible land management have taken a toll on grasslands and streams in the SWGSCA.

For these reasons, and as consideration of the proposed powerline continues, we hope that alternative options that would completely avoid these high-value conservation lands will be considered for the provision of renewable energy for Southcentral Wisconsin and beyond.

Sincerely,

A handwritten signature in black ink that reads "Mary Jean Huston".

Mary Jean Huston
State Director
The Nature Conservancy in Wisconsin