



ENVIRONMENTAL LAW & POLICY CENTER

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**DRIFTLESS AREA LAND CONSERVANCY'S AND
WISCONSIN WILDLIFE FEDERATION'S COMMENTS ON THE
RURAL UTILITIES SERVICE'S FINAL ENVIRONMENTAL IMPACT STATEMENT
FOR THE CARDINAL-HICKORY CREEK TRANSMISSION LINE**

Submitted on behalf of the
Driftless Area Land Conservancy and the
Wisconsin Wildlife Federation
By their Attorneys:

Howard A. Learner
Scott R. Strand
Rachel L. Granneman
Ann Jaworski
Environmental Law & Policy Center
35 East Wacker Drive, Suite 1600
Chicago, IL 60601
HLearner@elpc.org
SStrand@elpc.org
RGranneman@elpc.org
AJaworski@elpc.org
(312) 673-6500

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35 East Wacker Drive, Suite 1600 • Chicago, Illinois 60601
(312) 673-6500 • www.ELPC.org
Harry Drucker, Chairperson • Howard A. Learner, Executive Director
Chicago, IL • Columbus, OH • Des Moines, IA • Grand Rapids, MI • Indianapolis, IN
Minneapolis, MN • Madison, WI • North Dakota • South Dakota • Washington, D.C.

Table of Contents

I.	Introduction and Overview	1
II.	Impermissibly Narrow Purpose and Need Statement	2
III.	Failure to Evaluate All Reasonable Alternatives	9
IV.	Inadequate Analysis of Impacts	13
A.	Scope of the Actions Included in the Impacts Analysis	13
B.	Vegetation and Wetlands	14
C.	Wildlife and Birds.....	16
D.	Water Quality.....	20
E.	Air Quality and Climate Change.....	20
F.	Noise	22
G.	Cultural and Historic Resources	23
H.	Land Use and Agriculture.....	23
1.	Conservation Land Uses	24
2.	Land Cover.....	25
3.	Development Plans	25
4.	Agriculture	26
I.	Visual Quality and Aesthetics.....	27
J.	Socio-Economic and Environmental Justice Impacts.....	27
1.	Tourism.....	27
2.	Property Values.....	28
3.	Environmental Justice.....	29
K.	Public Health and Safety.....	31
L.	Upper Mississippi River National Wildlife and Fish Refuge	31
M.	Cumulative Impacts	32
V.	Mitigation and Remediation	34
VI.	Conclusion	35

I. INTRODUCTION AND OVERVIEW

The Driftless Area Land Conservancy (“DALC”) and Wisconsin Wildlife Federation (“WWF”) hereby submit the following comments on the Rural Utilities Service’s (“RUS”) Final Environmental Impact Statement (“FEIS”) for the proposed Cardinal-Hickory Creek high-voltage transmission line and high towers that would cut a wide swath across the Upper Mississippi River National Wildlife and Fish Refuge, and through the scenic and ecologically sensitive Driftless Area of Southwest Wisconsin. These comments of DALC and WWF attach and incorporate the scoping comments and Draft Environmental Impact Statement (“DEIS”) comments of the same organizations. Attachment A, Scoping Comments; Attachment B, DEIS Comments. While some of the issues raised in these previous comments have been addressed to some extent in the FEIS, significant problems remain. Failure of this new comment letter to specifically discuss issues or arguments raised in the DEIS comments does not indicate that those concerns have been remedied or that DALC and WWF are waiving or withdrawing those arguments.

The American Transmission Company (“ATC”), ITC Transmission (“ITC”), and Dairyland Power Cooperative (“Dairyland”) (collectively, “Applicants”) are requesting funding and various federal regulatory approvals for the proposed Cardinal-Hickory Creek high-voltage transmission line. The FEIS is legally inadequate for numerous reasons.

First, the Purpose and Need Statement has not been modified to address the significant issues identified in DALC’s and WWF’s earlier comments. The Purpose and Need Statement remains impermissibly narrow and continues to restrict alternatives to make the Applicants’ proposal the only “alternative” that can meet the stated Purpose and Need. Furthermore, the “needs” alleged in the FEIS are not supported, and the FEIS does not respond to comments challenging the need.

Second, the FEIS’s analysis of alternatives is deeply and critically flawed, and has not been meaningfully modified from the DEIS version to address DALC’s and WWF’s comments. The alternatives analysis forms “the heart of the environmental impact statement.” 40 C.F.R. § 1502.14. *Simmons v. U.S. Army Corps of Engineers*, 120 F.3d 664, 670 (7th Cir. 1997). The Rural Utilities Service and other federal agencies did no independent analysis of the reasonableness or feasibility of either route alternatives (*e.g.*, routes that do not cut through the Upper Mississippi River National Wildlife and Fish Refuge or that would largely avoid the Driftless Area) or energy alternatives (*e.g.*, alternative transmission solutions like battery storage and distributed generation that would have the same grid benefits as a new transmission line with a much smaller ecological footprint). Instead, the federal agencies impermissibly relied entirely on the Applicants’ determination that these alternatives are infeasible or cannot meet the Purpose and Need, or both. This complete abdication of the federal agencies’ responsibilities should not stand.

Third, the FEIS’s analysis of impacts is flawed and incomplete. The FEIS fails to adequately address concerns raised in DALC’s and WWF’s comments concerning the scope of actions included within the analysis, the discussion of impacts to various resources, and the cumulative impacts analysis.

II. IMPERMISSIBLY NARROW AND UNSUPPORTED PURPOSE AND NEED STATEMENT

As explained in DALC’s and WWF’s DEIS comments, the Purpose and Need Statement is a vital and cornerstone step in the NEPA process. DEIS Comments at 3. It frames the problem that needs to be solved and defines the range of possible alternatives to be fully evaluated. The United States Court of Appeals for the Seventh Circuit—in which the vast majority of the proposed transmission line project would take place—has consistently held that “an agency should not rely on a private party’s goals” when determining the alternatives to be considered. Daniel R.

Mandelker et al., NEPA Law and Litig., 2d § 9:27 (2019). As explained in *Van Abbema v. Fornell*, 807 F.2d 633, 638 (7th Cir. 1986), “the 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.”

Over a decade later, the Seventh Circuit reaffirmed this approach in no uncertain terms: an agency’s claim that it must defer to an applicant’s purpose “is a losing position in the Seventh Circuit.” *Simmons v. U.S. Army Corps of Engineers*, 120 F.3d 664, 669 (7th Cir. 1997). Relatedly, agencies are required “to exercise a degree of skepticism in dealing with self-serving statements from a prime beneficiary of the project.” *Simmons v. U.S. Army Corps of Engineers*, 120 F.3d 664, 669 (7th Cir. 1997) (quoting *Citizens Against Burlington, Inc. v. Busey*, 938 F.2d 190, 209 (D.C. Cir. 1991) (Buckley, J., dissenting)).

Even in Seventh Circuit cases where agencies’ NEPA actions have been upheld, the Court of Appeals has not backed away from this position. See *Kickapoo Valley Stewardship Ass’n. v. U.S. Dep’t of Transp.*, 37 F. App’x 810, 814 (7th Cir. 2002) (agency “must consider the alternative plans in reference to the general goals of the project”). Other Circuits have also followed this reasoning. For example, the Ninth Circuit has held that an agency may not simply adopt the developer’s purpose as the Purpose for the EIS. *National Parks Conservation Ass’n v. Bureau of Land Management*, 606 F.3d 1058 (9th Cir. 2010) (an agency may not “adopt[] private interests to draft a narrow purpose and need statement that excludes alternatives that fail to meet specific private objectives”). The fact that an alternative could not be carried out by the applicants is not a legally justifiable reason to not consider that alternative. *Id.* This position is also echoed in guidance from the Council on Environmental Quality:

Section 1502.14 requires the EIS to examine all reasonable alternatives to the proposal. In determining the scope of alternatives to be considered, the emphasis is on what is

“reasonable” rather than on whether the proponent or applicant likes or is itself capable of carrying out a particular alternative. Reasonable alternatives include those that are practical or feasible from the technical and economic standpoint and using common sense, rather than simply desirable from the standpoint of the applicant.

Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations, 46 FR 18026-01 (1981).

Here, the FEIS simply adopts the Purpose and Need Statement provided by the Applicants, which is framed such that only a new high-voltage transmission line from Iowa to Wisconsin could meet the Purpose. This is entirely impermissible:

[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.

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.”).

A more careful review of the applicants' proffered purpose and need statement illustrates the difference between statements that meet the statutory standard and statements that do not. The FEIS “project purpose and need” statement has six elements:

- (1) Address reliability issues on the regional bulk transmission system and ensure a stable and continuous supply of electricity is available to be delivered where it is needed even when facilities (e.g. transmission lines or generation resources” are out of service;
- (2) Address congestion that occurs in certain parts of the transmission system and thereby remove constraints that limit the delivery of power from where it is generated to where it is needed to satisfy end-user demand;
- (3) Expand the access of the transmission system to additional resources, including 1) lower-cost generation from a larger and more competitive market that would reduce the overall cost of delivering electricity, and 2) renewable energy generation needed to meet state renewable portfolio standards and support the nation's changing electricity mix;

- (4) Increase the transfer capability of the electrical system between Iowa and Wisconsin;
- (5) Reduce the losses in transferring power and increase the efficiency of the transmission system and thereby allow electricity to be moved across the grid and delivered to end-users more cost-effectively; and
- (6) Respond to public policy objectives aimed at enhancing the nation's transmission system and to support the changing generation mix by gaining access to additional resources such as renewable energy or natural gas-fired generation facilities.

FEIS at ES-2 to ES-3.

Five of these “purposes” are broad enough to meet NEPA requirements—addressing reliability, addressing congestion, expanding access to the transmission system, increasing the efficiency of the transmission system, and supporting the changing generation mix. Although DALC and WWF in no way concede that these “purposes” address actual needs, they are general purposes that can reasonably be accomplished by a number of alternatives, including alternative transmission strategies, upgrades to current transmission lines, or high-voltage transmission lines running on a wide range of different routes. The fundamental objection is to #4—increasing the transfer capability of the electrical system between Iowa and Wisconsin. That is not a “purpose”: that is essentially a description of the project itself. Only transmission lines between Iowa and Wisconsin can meet that so-called purpose and need, and the result is that alternative transmission solutions or alternative routes that avoid the Refuge and the Driftless Area are summarily dismissed and not given serious consideration.

Chapter 2 of the FEIS contains the alternatives analysis, and the rationale for dismissing alternatives. Step one is to limit the range of alternatives to those that connect the Hickory Creek substation in Iowa with the Cardinal substation in Wisconsin. FEIS at 33-34. As the FEIS concedes, once you eliminate anything other than “relatively direct” connections between those

two substations, alternative routes that might address the reliability, congestion, and access concerns in the FEIS (purposes 1, 2, 3, 5, and 6) but not cross the Refuge or the Driftless Area are automatically excluded from consideration. FEIS at 33-34. Those alternatives are excluded from the “study area,” they are excluded from the “macrocorridor” study, only “Wisconsin” transmission line corridors get any consideration at all, *id.* at 34-52, and only Mississippi River crossings within the Refuge range (between Wabasha and Rock Island), all of which would necessitate crossing the Driftless Area get included in even the preliminary discussion. *Id.* at 53-58.

The evaluation of “non-transmission alternatives”—the applicants’ term, what the Federal Energy Regulatory Commission orders call “alternative transmission solutions”—gets the same treatment. As explained below, the FEIS uses a divide-and-conquer strategy by analyzing each potential alternative transmission strategy in isolation, and not as a part of a package, but it also simply rejects those alternatives because they do not increase transfer capability between Iowa and Wisconsin. FEIS Vol. I, at p. 60. Obviously, any strategy that takes pressure off existing transmission capacity sufficiently can address reliability, congestion, and access, but only a new power line between Iowa and Wisconsin will increase transfer capacity between Iowa and Wisconsin. When the purpose and need statement is drawn that narrowly, so that only slight modifications to the applicants’ proposed project can be considered, the requirements of NEPA have not been met. Furthermore, the Purpose and Need Statement is not supported by any meaningful demonstration that there is actually a public need for this high-voltage transmission line. RUS regulations state that “[t]he Agency shall not fund the proposal unless there is a demonstrated, significant need for the proposal.” 7 C.F.R. § 1970.4. As explained in DALC’s and WWF’s scoping and DEIS comments (Attachment A, Scoping Comments at 9-15. Attachment B,

DEIS Comments at 5-9), neither the Applicants nor the federal agencies have identified any reliability need for this massive and expensive infrastructure, and other alleged “needs” are similarly unsupported. At the Public Service Commission of Wisconsin (“PSCW”) proceeding in which Applicants sought a Certificate of Public Convenience and Necessity (“CPCN”), a former Mid-Continent Independent System Operator’s (“MISO”) employee testified as an expert witness for DALC and WWF that there is no reliability need, as defined by MISO’s standards, for the project. *See* Attachment C, Surrebuttal Testimony of Konidena, at 7–8; Attachment D, Direct Testimony of Konidena, at 6–11 (“MISO does not consider the CHC project necessary to maintain reliability and address any market emergencies.”).

As explained in DALC’s and WWF’s previous comments, it is impermissible to rely on the inclusion of this line in the MISO Multi-Value Portfolio (“MVP”) as the basis for this project being needed. First, MISO is a private non-profit organization—not a government entity—and has no authority over agency approvals of transmission lines. Second, the MISO MVP analysis is outdated and relied on assumptions about the growth of electricity demand that have not played out in the real world. *See* Attachment D, Direct Testimony of Konidena, at 11–15. Third, MISO never even analyzed this specific transmission line on its own—it only did analyses of the entire portfolio as a whole. *Id.*

DALC’s and WWF’s comments raised other challenges to the alleged need for this line. For example, they questioned the need for the line to help states meet their renewable portfolio standards, explaining in detail which states have already met their standards or would not be able to use Iowa wind to do so. DEIS Comments at 6-7. In response, the FEIS states: “While Wisconsin Utilities are currently in compliance with the Wisconsin RPS for 2015, it is unclear whether the other states that are dependent on the MVP portfolio have also met their requirements.” FEIS Vol.

IV, at p. F-90. Whether or not other states have met their standards is easily obtainable public knowledge. The federal agencies cannot simply punt when provided with evidence that undermines the alleged “need.”

The claim that the line is “needed” because there are renewable energy projects that have generation interconnection agreements (“GIA”) that are labeled as “conditional” on the Cardinal-Hickory Creek transmission line is also faulty. In the PSCW proceeding, the Mid-Continent Independent System Operator (“MISO”) expert admitted during cross-examination that just because a generator’s GIA is “conditional” on the CHC line does not mean that the generator cannot interconnect and operate at its full potential output without the CHC line in operation. In fact, in reference to the generating units that have GIAs that are “conditional” on the Cardinal-Hickory Creek line, he admitted that “[t]here’s no binding limits on those specific units currently.” Attachment E,¹ Cross Examination of Ellis at 723-724. *See also* Attachment F, Rebuttal Testimony of Konidena, at 12-15.

Although the Public Service Commission of Wisconsin approved the Certificate of Public Convenience and Necessity, RUS is required to independently make a “need” determination. This is especially true because the PSCW’s determination that there is a “need” for the project was contrary to the evidence presented in that proceeding. No evidence was provided showing a reliability need, and the Applicants relied on claims of economic benefits, which they asserted qualified as establishing a “need” for the transmission line. Not only is this a dubious understanding of what “need” is, but the PSCW’s own staff questioned whether there were economic benefits. Using Applicants’ own methodology, PSCW Staff’s lead project engineer, Alexander Vedvik, determined that the Project “could have **negative** net benefits to the MISO

¹ Attachment E is selected pages from the party hearing transcript available at http://apps.psc.wi.gov/vs2015/ERF_view/viewdoc.aspx?docid=372325.

footprint” in most of the modeled futures. Attachment G, Direct Testimony of Vedvik at 30-31 (emphasis added).

The FEIS fails to demonstrate a need for the massive and expensive new high-voltage transmission line—or indeed, any real benefit of building the line, other than ensuring a significant profit to the developers—and frames the Purpose and Need statement to preclude any real alternatives to the developers’ proposed project. This is clearly impermissible under NEPA and under RUS’s own regulations.

III. FAILURE TO EVALUATE ALL REASONABLE ALTERNATIVES

NEPA requires RUS to “rigorously explore and objectively evaluate all reasonable alternatives,” including a no-build alternative and alternatives other than building a massive new transmission line through the Upper Mississippi River National Wildlife and Fish Refuge and through the heart of the Driftless Area. 40 C.F.R. § 1502.14. As explained in DALC’s and WWF’s DEIS comments (DEIS Comments at 10, 11-16), the agencies here relied almost entirely on flawed analyses provided by the Applicants about the feasibility and reasonableness of alternative routes and alternative energy solutions, and whether these sorts of alternatives could meet the Purpose and Need—see citations throughout FEIS Section 2.2 relying on Applicants’ materials for critical analysis of why various alternatives were not considered in detail. The FEIS therefore dismisses numerous alternatives without any independent analysis or verification by the agencies, instead taking the Applicants’ self-serving “analysis” as true. This is a critical failing. NEPA does not allow “blind reliance on material prepared by the applicant in the face of specific challenges raised by opponents.” *Van Abbema v. Fornell*, 807 F.2d 633, 642 (7th Cir. 1986).

The FEIS apparently attempts to respond to this concern by stating:

RUS and the other Federal agencies have independently evaluated the impacts to the human and natural environment of the six action alternatives and No Action

Alternative analyzed in the EIS, as required by NEPA. Information provided by the Utilities for informing impact analysis for the natural and human environment was independently reviewed by RUS, cooperating agencies, and SWCA prior to being incorporated into the EIS.

FEIS at Vol. IV, at p. F-165. This misses the point. The problem is that RUS and the other agencies summarily dismissed several reasonable, feasible, and almost certainly less environmentally harmful alternatives before getting to the point of “evaluat[ing] the impacts to the human and natural environment.” Whether or not the agencies adequately examined the impacts of the alternatives that they *did* consider in detail is irrelevant to whether they should have considered other alternatives.

The FEIS dismisses some alternatives on the basis that each alternative technology, on its own, cannot meet the Purpose and Need. Yet as DALC and WWF explained in their DEIS comments, alternative transmission solutions must be considered in combinations to be most effective. DEIS Comments at 10-12. For example, distributed solar generation and battery storage in combination have important synergy and cost savings. Los Angeles, California entered into a contract in September, 2019 for combined solar and battery storage that would provide 6-7% of the city’s power demand for a shockingly low 3.3 cents per kilowatt-hour. Sammy Roth, *Los Angeles OKs a Deal for Record-Cheap Solar Power and Battery Storage*, LOS ANGELES TIMES (Sept. 10, 2019), <https://www.latimes.com/environment/story/2019-09-10/ladwp-votes-on-eland-solar-contract>. The Tenth Circuit rejected the NEPA analysis in *Davis v. Mineta* for this exact same problem:

Many alternatives were improperly rejected because, standing alone, they did not meet the purpose and need of the Project. Cumulative options, however, were not given adequate study. Alternatives were dismissed in a conclusory and perfunctory manner that do not support a conclusion that it was unreasonable to consider them as viable alternatives.

Davis v. Mineta, 302 F.3d 1104, 1122 (10th Cir. 2002).

Expert testimony provided by DALC and WWF in the PSCW CPCN proceeding reaffirms the problems with the FEIS's dismissal of alternative transmission solutions, such as distributed generation, demand response, and battery storage. These resources are less costly, more flexible, and less environmentally damaging than a massive new high-voltage transmission line and towers, and **can provide the same kinds of transmission services as a high-voltage transmission line**, including reducing congestion. Attachment H, Direct Testimony of Kerinia Cusick. Applicants in the PSCW proceeding "failed to evaluate proven, non-wires based solutions such as power electronics, energy storage, solar, and load control, and energy efficiency and demand response approaches in effective combinations to augment the performance of the existing transmission infrastructure, thereby potentially meeting the transmission need more effectively and efficiently." *Id.* at 1. The FEIS relied on this same faulty analysis from Applicants. In fact, alternative transmission solutions **can replicate grid benefits** that the proposed transmission line would create, including any benefits to wind generation, and could therefore meet any alleged need for the line.

The FEIS's discussion of these alternative transmission solutions was proven to be inaccurate in the PSCW proceeding. The FEIS, relying on a flawed and outdated 2016 analysis by the Applicants, found that the alternative transmission solutions could not meet the Purpose and Need and/or were not economically reasonable or technically feasible. FEIS Vol. I, at p. 60-63. Yet in the PSCW proceeding, Applicants hired an expert who created a preliminary design for an alternative using solar, batteries, and energy efficiency, which was "designed to mimic the Project as best as possible by achieving an incremental transfer capability of 1,383 MW between Iowa and Wisconsin and to address some reliability requirements on the transmission system." Attachment I, Rebuttal Testimony of Chao at 16.

Applicants' own expert estimated that this alternative transmission solution, **which was designed to mimic the Cardinal-Hickory Creek line**, would cost between \$193.6 and \$314.3 million (2018 dollars), significantly less than the \$550 million for the Cardinal-Hickory Creek transmission line. In fact, former Federal Energy Regulatory Commission Chairman Jon Wellinghoff explained that Chao's analysis ignored feasible options that would cost even less. Attachment J, Surrebuttal Testimony of Wellinghoff, at 6-10. Although the FEIS failed to analyze what the environmental impacts of an alternative transmission solution option would be, it would certainly be less damaging than building a massive high-voltage line through the ecologically sensitive Driftless Area of Southwest Wisconsin and across the Upper Mississippi River National Wildlife and Fish Refuge. Expert Cusick explained in her testimony before the PSCW that a battery storage alternative would have a "footprint that is akin to the size of a large shopping complex parking lot." Attachment K, Surrebuttal Testimony of Cusick at 5.

The FEIS also attempts to dismiss reasonable alternatives by claiming that "these alternatives may not be pertinent to the applications to which the Federal agencies must respond." *E.g.*, FEIS at Vol. I, at p. 59, 61. This is a red herring argument. Any alternative other than exactly what the Applicants are proposing could arguably "not be pertinent" to their permit applications. This has absolutely no bearing on the NEPA analysis. RUS regulations make clear that RUS "is responsible for all environmental decisions and findings related to its actions" and must "independently evaluate" all environmental information submitted by applicants. 7 C.F.R. § 1970.5(a). NEPA "do[es] not permit the responsible federal agency to abdicate its statutory duties by reflexively rubber stamping a statement prepared by others." *Sierra Club v. Lynn*, 502 F.2d 43, 59 (5th Cir. 1974).

The FEIS could also have considered a route farther south, such as the route proposed for the SOO Green Renewable Rail project, which would cross from Iowa into Illinois. The FEIS argues, “RUS investigated the status of the SOO Green Renewable Rail project and concluded the project was too conceptual and early in the pre-design phase to be deemed a reliable project example to inform alternatives for the C-HC Project.” Vol. I, at p. 67. However, even if the SOO proposal itself is too conceptual to be considered as an alternative, this does not mean that the route suggested for the SOO line shouldn’t be considered.

IV. INADEQUATE ANALYSIS OF IMPACTS

The FEIS retains numerous flaws in the impacts analysis, including: incomplete information and analysis; failure to fully consider the full range and scope of impacts, including impacts outside of the ROW; understating impacts or failure to fully disclose adverse effects; and overstating or assuming success of avoidance, remediation, and restoration efforts. NEPA requires that “[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). The FEIS is not sufficient to “provide a full and fair discussion of significant environmental impacts and to inform the appropriate Agency decision maker and the public of ... any measures that would avoid or minimize adverse impacts.” 7 C.F.R. § 1970.151.

A. Scope of the Actions Included in the Impacts Analysis

As an initial matter, the scope of the analyzed action continues to exclude important impacts. Although the FEIS now includes a discussion of the impacts of removing the existing Dairyland transmission lines through the Upper Mississippi River National Wildlife and Fish Refuge, it still does not evaluate the impacts from relocating or double-circuiting other lower-voltage electric lines along the routes, including the relocation of distribution lines by the local

utilities. *See, e.g.*, FEIS Vol. I, at p. 104. The FEIS must discuss and disclose the impacts from relocating distribution and lower-voltage lines along the Cardinal-Hickory Creek route.

B. Vegetation and Wetlands

The FEIS analysis of impacts to vegetation and wetlands is still insufficient, and many of the concerns raised in DALC's and WWF's comments have not been fixed. For example, the FEIS admits that it is still true that "[t]argeted plant inventories have not been completed for the project," FEIS at Vol. II, at p. 162, and that "[c]omprehensive vegetation community surveys and mapping has not been completed for the project." FEIS at Vol. II, at p.165. Mark Mittelstadt, who has been a forester in southwest Wisconsin for four decades, explained in his comments that the "desktop" sources consulted by RUS are incomplete, and likely miss many instances of rare species along the transmission line route. Attachment L, Comments of Mark Mittelstadt. He explains that the list of special status plants found in the project area does not include numerous species that he has personally seen growing in the area. The FEIS is not complete without on-the-ground surveys.

The FEIS did not incorporate any information provided in the comments about the importance and valuation of wetlands ecosystem services. DEIS Comments at 31-32. Monetizing the benefits of a project but not the negative impacts is not appropriate. *Ctr. for Biological Diversity v. Nat'l Highway Traffic Safety Admin.*, 538 F.3d 1172 (9th Cir. 2008). Without this information, it is impossible for the reader to understand the true consequences of degradation of wetlands.

Perhaps most problematically, the FEIS continues to assume that all mitigation and restoration measures will be entirely successful, and for the most part, able to prevent any permanent injuries to wetlands or other vegetative communities. Yet the FEIS provides no support for this assumption, and does not address the concerns raised by commenters about how successful

mitigation and restoration measures really are. DEIS Comments at 32-34. It is widely recognized in the scientific community that restoration of disturbed ecosystems is incredibly difficult to do well, and impacts from disruptions often last decades or are permanent. *See, e.g.,* Moreno-Mateos, D. et al., *Anthropogenic Ecosystem Disturbance and the Recovery Debt*, Nature Communications 8, 14163 doi: 10.1038/ncomms14163 (2017). Experts in the PSCW CPCN proceeding also raised concerns that best management practices (“BMPs”) may not be sufficient to protect wetlands and other resources, especially as extreme weather events (including flooding) become more severe and frequent. Dr. Waller explained that even if BMPs are adequate for normal weather conditions, they “fail to function adequately under these extreme events.” Attachment M.² Environmental monitoring reports from previous ATC and ITC projects demonstrates the validity of this concern, revealing numerous instances of wetland timber “matting” floating off of the right-of-way and silt and turtle exclusion fencing being overwhelmed. Attachment N (selected pages from environmental monitoring reports for recent ITC and ATC high-voltage transmission line construction). Additionally, permit conditions and BMPs are not necessarily complied with, and former Wisconsin DNR Secretary George Meyer testified before the Wisconsin Public Service Commission, the DNR often lacks the practical ability to enforce these requirements. Attachment O, Direct Testimony of Meyer, at 30–32. NEPA does not permit federal agencies to sweep aside important environmental impacts by simply asserting that mitigation and restoration actions will minimize those impacts.

The FEIS is also legally deficient because it does not provide adequately detailed and specific information to make the mitigation and restoration measures binding and enforceable. “Mitigation measures described in the environmental review and decision documents must be

² Attachment M is a PDF with selected pages from the party hearing transcript for June 21, 2019, available at <http://apps.psc.wi.gov/pages/viewdoc.htm?docid=372328>.

included as conditions in Agency financial commitment documents.” 7 C.F.R. § 1970.5. These mitigation measures must be incorporated in the plans and construction contracts for the project, and must be maintained “for the life of the loans.” *Id.* Such measures are meaningless if they are not described with specificity and in a way so as to be meaningfully binding. Measures that only are required “as necessary” or “to the extent possible” are insufficient.

Dr. Joy Zedler, Aldo Leopold Professor Emerita of Restoration Ecology at UW-Madison, raises several of these concerns in her comments on the FEIS. Attachment P. For example, she notes that information about when and how mitigation and restoration measures will be carried out is lacking and allows for too much on-the-spot discretion by the Applicants. She also questions the effectiveness of various “best management practices” and states that some proposed approaches are inadequate to protect wetlands. *E.g.*, Attachment P, at 3.

Other issues raised in comments have similarly not been addressed. For example, the FEIS continues to use a 300-foot analysis area for vegetation and wetlands impacts, despite the fact that commenters explained that many impacts, including those from runoff and invasive species, can extend well beyond that area. DEIS Comments at 30-31. The FEIS must fully and fairly analyze all direct, indirect, and cumulative impacts to vegetation and wetlands.

C. Wildlife and Birds

The FEIS does not meaningfully address the concerns raised by commenters about the inadequacy of the discussion around impacts to wildlife and especially to birds. *See, e.g.*, DEIS Comments at 35-39. First, RUS still apparently has not conducted a complete species survey. FEIS Vol. II, at p. 170, 186. The FEIS necessarily then cannot disclose or discuss with any detail which species will be affected and to what degree.

The FEIS also does not remedy the DEIS's inadequate discussion of bird impacts, specifically regarding impacts from collisions with the high-voltage transmission line. The FEIS brushes off the significance of bird mortality, noting that the line “would *present the potential* for avian collisions” and that “[u]nder high wind, fog, or poor light conditions, avian collisions with the transmission line *may occur*.” FEIS Vol. II, at p. 203 (emphasis added). This downplaying of collision impacts is incredibly misleading. The proposed transmission line would cut east-west over 100 miles, across the Mississippi Flyway, “a migration route of continental significance for over 300 species of migrant birds.” Attachment Q, Direct Testimony of Waller, at p.4. Significant bird mortality is guaranteed if this transmission line is built. In the PSCW proceeding, expert biologist Dr. Donald Waller explained that the most careful and rigorous study he found on bird collisions, Barrientos et al. 2012 (Attachment R), found that the power lines studied resulted in a mean collision rate of 8.2 collisions per km per month. Dr. Waller explained: “If we multiply that by the 125 miles or 201 kilometers of the proposed preferred route, we come up with a figure of 1,648 bird collisions per month, which translates into 19,778 collisions, fatal collisions of birds, per year.” Attachment S,³ at p. 1813. In other words, **Dr. Waller estimates that this transmission line will kill nearly 20,000 birds every year.** Despite the existence of scientific studies on bird collisions with transmission lines, the FEIS provides **no estimate of bird mortality from collisions** and indeed, fails to even acknowledge that such impacts will certainly occur. Dr. Waller also explained that the Barrientos study found that marking lines with flight diverters, one of the BMPs mentioned in the FEIS, reduced bird mortality by less than 10%. *Id.*

The FEIS also acknowledges that there may be lighting along the line, including on transmission line structures, and at the Hill Valley Substation. FEIS Vol. II, at p. 265-66, 270, 355.

³ Attachment S is a PDF with selected pages from the party hearing transcript for June 21, 2019, available at <http://apps.psc.wi.gov/pages/viewdoc.htm?docid=372328>.

The FEIS does not, however, discuss how artificial lighting would affect wildlife, such as bats, migrating birds, insects, etc. “Light pollution affects ecological interactions across a range of taxa and negatively affects critical animal behaviours including foraging, reproduction and communication.” Emma Louis Stone et al., *Impacts of Artificial Lighting on Bats: A Review of Challenges and Solutions*, *Mammalian Biology* (2015), https://www.researchgate.net/publication/272889669_Impacts_of_artificial_lighting_on_bats_A_review_of_challenges_and_solutions. “Light pollution is now recognised as a key biodiversity threat and is an emerging issue in biodiversity conservation.” *Id.* Artificial light can affect many aspects of bat behavior, *id.*, as well as negatively impact migratory birds. “Point sources of [artificial light at night] disorient and attract birds actively engaged in migration. . . High-intensity urban light installations can dramatically alter multiple behaviors of nocturnally migrating birds even to distances of several kilometers from the source.” Sergio A. Cabrera-Cruz et al., *Light Pollution Is Greatest Within Migration Passage Areas for Nocturnally-Migrating Birds Around the World*, *Scientific Reports* (2018), <https://www.nature.com/articles/s41598-018-21577-6>. Many bird species migrate at night, including “most songbirds, waterfowl and shorebirds.” *Id.* Lights at the Mississippi River crossing could be especially problematic, given that many migrating birds closely follow the River.

Impacts to specific bird species are also discounted. In DALC’s and WWF’s comments on the DEIS, they explained that whooping cranes migrate through the area that would be affected by the line, and provided evidence, including a photograph from U.S. Fish and Wildlife Service of whooping cranes in the area of the Upper Mississippi River National Wildlife and Fish Refuge through which the transmission line would run. DEIS Comments at 36-37. The DEIS’s statement that “there are no records of whooping cranes using land within the analysis area or near the Refuge” (DEIS at 177) was modified in the FEIS to state that “whooping cranes using land within

the analysis area or near the Refuge is uncommon and impacts to the species are not anticipated.” FEIS Vol. II, at p. 195. Yet it is well documented that whooping cranes migrate through the project area. In the PSCW proceeding, Clean Wisconsin’s staff scientist Dr. Paul Mathewson testified that records from multiple sources showed whooping crane observations in the project area. Attachment T, Direct Testimony of Mathewson, at p. 13-14. Dr. Mathewson explained that while the 100 cranes that summer in Wisconsin (called the Eastern Population) are an “experimental” population, they make up 15% of the total number of whooping cranes in the wild. Furthermore, Dr. Mathewson noted that “[t]ransmission line collisions represent a significant source of whooping crane mortality, including 18% of known mortality in the Eastern Population.” *Id.* The FEIS cannot ignore the likelihood of whooping crane deaths from collisions with the transmission line.

The discussion of impacts to bald eagles is also woefully inadequate. While the FEIS acknowledges that there are numerous bald eagle nests in the counties through which the line would run, a bald eagle nest survey has not been done, and the FEIS fails to even disclose just how close the line would run to known bald eagle nests. In the PSCW proceeding, the developers admitted that based on Wisconsin DNR records, the centerline of the transmission right-of-way would run within 600 meters of four known bald eagle nests, and because no surveys had been done, could in fact run within 50 meters of a nest. Attachment U,⁴ Cross Examination of Bub, at 876-877. It is not sufficient to say that if bald eagle nests are encountered, mitigation measures will be taken. First, the fact that bald eagles nest in close proximity to the line exist must be disclosed. Second, specific mitigation measures must be identified and committed to. Third, the

⁴ Attachment U is a PDF of selected pages from the party hearing transcript for June 18, 2019, available at <http://apps.psc.wi.gov/pages/viewdoc.htm?docid=372325>.

FEIS must acknowledge that even if mitigation measures are taken—such as not constructing the line during active nesting season—there may still be significant impacts to bald eagles. For example, fledgling eagles learning to fly from their nests and a nearby high-voltage transmission line could be a deadly combination.

D. Water Quality

The FEIS's discussion of water quality impacts still contains many flaws identified by commenters in the DEIS. As explained in DALC's and WWF's DEIS comments, some impacts are not discussed in sufficient detail to inform the decision, such as vegetation removal, dewatering, and impacts to floodplains. DEIS Comments at 39-42. The conclusion that many impacts would be only minor or short term relies heavily on the success of BMPs and mitigation measures, but the DEIS does not discuss those practices and mitigation measures in sufficient detail to justify that conclusion. This is a key concern raised by Dr. Barbara Peckarsky, Emeritus Professor of Stream Ecology, Cornell University, and an Honorary Fellow in the Departments of Integrative Biology and Entomology at the University of Wisconsin Madison, in her comments on the FEIS. Attachment V. Dr. Peckarsky explains, "information is still lacking with regard to avoidance, mitigation or restoration measures associated with construction and maintenance of the required structures for the transmission line."

E. Air Quality and Climate Change

While the FEIS makes an attempt to change its greenhouse gas impacts analysis in response to DALC's and WWF's comments, it misses the mark. The FEIS responds to comments that it should analyze carbon impacts from the generation of electricity that would be carried on the line. Instead of making a reasonable estimate of carbon emissions, or even giving a likely range, it provides the carbon emissions that would be associated with the transmission line carrying either

100% coal-generated electricity or 100% wind power. Yet neither of these is actually a likely scenario. Instead, the FEIS says the true carbon impact would lie somewhere in between, although it would certainly carry electricity from fossil-fuel generation. The Citizens Utility Board expert Mary Neal specifically testified in the PSCW proceeding that the transmission line would carry power generated by coal plants. Attachment W, Direct Testimony of Mary Neal. Giving two extreme situations and saying that the actual impact will be somewhere in between is not a sufficient analysis. The FEIS does not “provide the information necessary for the public and agency decisionmakers to understand the degree to which the [federal action] at issue would contribute to [climate change] impacts.” *WildEarth Guardians v. Zinke*, 368 F. Supp. 3d 41, 51 (D.D.C. 2019). Several recent federal court rulings have overturned NEPA analyses for failure to adequately address climate impacts. In fact, in light of these decisions and additional pending suits, the Bureau of Land Management suspended 130 oil and gas leases in September, seemingly acknowledging the legal vulnerability of its usual NEPA practices. Nicholas Kusnetz, *U.S. Suspends More Oil and Gas Leases Over What Could Be a Widespread Problem*, Inside Climate News, <https://insideclimatenews.org/news/17112019/oil-gas-leases-suspended-climate-impact-federal-nepa-assessment-blm-utah-colorado-wyoming> (Nov. 17, 2019). RUS should likewise rethink its approach to assessing climate impacts.

The greenhouse gas analysis is also flawed in that it acknowledges that trucks and construction equipment will emit greenhouse gases, but then erroneously claims that the emissions “would not result in any long-term climate change impacts.” FEIS Vol. II, at p. 245. All greenhouse gases that are emitted into Earth’s atmosphere will necessarily contribute to climate change. Even **if** trucks and construction equipment for the project would only emit a small amount of greenhouse gases—note that RUS did not even attempt to estimate the amount of greenhouse gases that would

be emitted—that would not mean that there would be no climate impacts. RUS’s analysis is unsupportable.

DALC and WWF commented that the FEIS should include an analysis of carbon impacts based on the social cost of carbon. DEIS Comments at 45-47. RUS argued in its response to comments that it is not required to monetize impacts to any resource. FEIS Vol. IV, at p. F-175. However, the FEIS does attempt to monetize many other impacts of the project. For example, the FEIS quantifies the “positive impacts to employment and income” (FEIS Vol. I, at p. ES-22) and alleged energy cost savings. FEIS Vol. I, at p. 17. Federal courts have found NEPA analyses to be inadequate when they monetize benefits of an action but not costs. *Ctr. for Biological Diversity v. Nat'l Highway Traffic Safety Admin.*, 538 F.3d 1172 (9th Cir. 2008). And another federal court has stated that NEPA’s “hard look” requirement includes “a ‘hard look’ at whether this tool [the social cost of carbon], however imprecise it might be, would contribute to a more informed assessment of the impacts than if it were simply ignored.” *High Country Conservation Advocates v. United States Forest Serv.*, 52 F. Supp. 3d 1174, 1193 (D. Colo. 2014). RUS should provide an estimate of the social cost of the project’s GHG emissions and, if it chooses not to use the social cost of carbon to create this estimate, must explain its reasons for that choice. *WildEarth Guardians v. Zinke*, 368 F. Supp. 3d 41, 74–75 & n.30 (D.D.C. 2019).

F. Noise

The FEIS does not remedy or adequately respond to the problems with the noise impacts analysis identified in DALC’s and WWF’s comments. DEIS Comments at 48-49. For example, DALC and WWF identified problems with the qualitative description of noise levels from construction. To demonstrate this point, DALC and WWF noted that the DEIS describes helicopter noise impact as “minor,” while stating that noise level at nearby residences would be “in the range

of about 83 to 87 dBA,” DEIS at 231, which is characterized as “very loud” and approaching a level that can cause hearing damage. DEIS at 224. RUS responds by explaining why helicopter noise would not actually cause hearing damage. FEIS Vol. IV, at p. F-177. RUS’s response misses the point—DALC and WWF were not asserting that helicopter use would actually cause hearing damage, but rather that the noise level generated could in no way be considered a “minor” impact.

The FEIS also discounts the impacts on noise to wildlife, limiting this analysis to a single short paragraph that acknowledges that noise “could . . . disrupt wildlife life-cycle activities.” FEIS Vol. II, at p.247. This is not an adequate discussion. A recent meta-analysis providing a “holistic quantitative assessment[] on the potential effects of noise across species” reveals that noise impacts on wildlife may be much broader and more significant than previously realized. Hansjoerg P. Kunc and Rouven Schmidt, *The Effects of Anthropogenic Noise on Animals: A Meta-Analysis*, BIOLOGY LETTERS, <https://royalsocietypublishing.org/doi/10.1098/rsbl.2019.0649> (Nov. 20, 2019). The FEIS must fully disclose noise impacts.

G. Cultural and Historic Resources

The FEIS necessarily is unable to fully evaluate and disclose the impacts that the high-voltage transmission line would have on cultural and historical resources, because only a small portion of the project route has actually been inventoried for cultural resources as of yet and cultural consultation with tribes is ongoing. FEIS Vol. II, at p. 283. RUS must inventory the full route before the FEIS is finalized in order to adequately disclose what the impacts to cultural and historical resources will be.

H. Land Use and Agriculture

The FEIS’s discussion and analysis of impacts to land use, agriculture, and recreation is also inadequate for a number of reasons.

1. Conservation Land Uses

Like the DEIS, the FEIS notes the existence of privately-held conservation easements in the analysis area but provides only a cursory discussion, which does not attempt to consider the actual impacts on individual conservation easements. DALC's and WWF's comments on the DEIS noted that the DEIS did not even provide the list of already identified affected easements that was included in the developers' application to the PSCW, DEIS Comments at 53, but that information was apparently not added in the FEIS despite being easily and publicly available.

The FEIS also does not analyze impacts on DALC's conservation easements, such as the easement on the Thomas Stone Barn property, which was purchased with funds from both federal (USDA Farm and Ranch Lands Protection Program) and state (Knowles-Nelson Stewardship Program) programs, and which includes a historic stone barn listed on the National and State Register of Historic Places. In response to DALC's and WWF's comments on the lack of discussion of conservation easements, RUS stated: "EIS Section 3.10 has been revised to disclose potential impacts to lands enrolled in conservation programs such as the CRP and MFL." FEIS Vol. IV, at F-183. Yet the Farm and Ranch Lands Protection Program ("FRPP") is a different sort of program than the CRP and MFL. Under the FRPP, which has now been consolidated in the Agricultural Conservation Easement Program ("ACEP"), land is entered into a permanent conservation easement with rights of enforcement for the Natural Resources Conservation Service ("NRCS"). The FEIS fails to explain how the high-voltage transmission line would be built without violating any requirements of the ACEP. For example, USDA's Title 440 – Conservation Programs Manual, Part 528, Subpart R provides that "NRCS easement lands are not subject to condemnation through eminent domain proceedings." And any "easement administrative action,"—which includes any subordination, modification, or termination of the rights of the United States in an ACEP easement—constitutes a federal action subject to review under NEPA.

“NRCDC must evaluate the consequences of, and alternatives to, the requested easement administrative action.” 440 CPM 528.170(C)(2). The Conservation Programs Manual also notes that any easement administrative action on an ACEP Agricultural Land Easement must be evaluated under the Farmland Protection Policy Act. This current FEIS for the Cardinal-Hickory Creek certainly does not provide this required analysis. The FEIS must include an actual evaluation of impacts to the conservation easements along the transmission line route.

2. Land Cover

The FEIS discussion of land cover impacts continues the flaws from the DEIS. For example, the “Land Cover Permanent Impact Summary” table continues to list “>1” as the affected acres of grassland, urban, barren, and wetlands for each of the six alternatives. Stating that greater than 1 acre of each of these four land cover types will be impacted says virtually nothing and certainly does not provide the level of detail required by an EIS. The FEIS must disclose all direct, indirect, and cumulative impacts to land cover, and simply acknowledging that there will be impacts is not sufficient.

3. Development Plans

While the FEIS discussion of local development and comprehensive land use plans was improved in response to DALC’s and WWF’s DEIS comments, it is still inadequate. The FEIS adds a paragraph briefly summarizing provisions from county and municipality land use plans that explicitly deal with transmission lines. However, it ignores entirely that many of the other provisions of such plans, such as those that discuss protecting local community feel, agricultural land, and the scenic natural landscape, are also relevant when considering the construction of a new high-voltage transmission line. The FEIS lists municipalities that submitted letters and resolutions opposing the transmission line, but apparently only included those that submitted the

documents specifically as part of the federal review process. Numerous additional local governments submitted resolutions opposing the transmission line in the PSCW proceeding, and others actually intervened in that proceeding to oppose the line. This information is public record, and available in the PSCW's docket at <http://apps.psc.wi.gov/vs2017/dockets/content/detail.aspx?id=5&case=CE&num=146>. Besides the entities listed in the FEIS, the following submitted resolutions or letters opposing the line: Dane County; Grant County; Iowa County; Mount Horeb Area School district; Barneveld Board of Education; the Towns of Brigham, Clyde, Cross Plains, Dodgeville, Eden, Ellenboro, Liberty, Lima, Mifflin, Mount Ida, Platteville, Potosi, Ridgeway, Wingville, and Wyoming; and the Villages of Arena, Barneveld, Montfort, and Ridgeway. See PSCW and DNR FEIS at 23–24, available in the PSCW's docket at <http://apps.psc.wi.gov/vs2017/dockets/content/detail.aspx?id=5&case=CE&num=146>.

Furthermore, the following legislators submitted comments urging the PSCW to consider alternatives: State Senators Shilling, Marklein, and Erpenbach, and State Representatives Pope, Considine, and Hesselbein.

Additionally, the FEIS was not modified to include information about consistency with development and management plans for local resources, such as conservation and recreation areas. The FEIS must fully explore and disclose the extent of inconsistencies between the proposed project and local land use plans and values.

4. Agriculture

The FEIS continues to acknowledge that construction of the CHC line may lead to some farms losing their organic certifications due to introduction of chemicals or herbicides that are prohibited in organic crops. Yet there is still no analysis of how many organic farms may be affected, nor is there any discussion or quantification of the economic impact that this loss of

certification would have. The economic impacts could be significant, both for individual farmers and for the region's tourism, which is, as discussed further below, partly driven by the region's reputation as a hub for small, conservation-minded, and organic farms. This information must be included to provide a fair analysis of direct and indirect impacts of the line.

I. Visual Quality and Aesthetics

Despite extensive comments from DALC and WWF on the inadequacies of the discussion of visual and aesthetic impacts, DEIS Comments at 58-61, RUS responded by making a single change: the FEIS acknowledges that the high-voltage transmission line and 17-story tall towers will have “major” (rather than “moderate”) visual impacts to homes within 150 feet on either side of the transmission line. Yet the FEIS continues to rely on very specific and narrowly focused quantification of impacts—for example, it does not consider visual impacts to homes more than 150 feet away from the line, or to visitors to nearby parks who are not at specific scenic outlook points. This crabbed view of aesthetic impacts is insufficient.

J. Socio-Economic and Environmental Justice Impacts

The FEIS's discussion of socio-economic and environmental justice impacts also continues to be insufficient and flawed.

1. Tourism

Like the DEIS, the FEIS seems to fail to understand that the degradation of the natural and visual environment from this proposed large transmission line would affect tourism to the Driftless Area as a whole—it will go beyond specific discrete impacts to the view at specific, discrete tourism sites. The Driftless Area as a region draws tourists. As conservation biologist, environmental historian, and Driftless Area authority Curt Meine explained in his testimony before

the PSCW, the line’s “potential harmful impacts involve not only specific sites within and near the proposed corridors, but the Driftless Area as a whole.” Attachment X, Direct Testimony of Meine, at 9. As Mr. Meine also explained in the PSCW proceeding, the four-county region in Wisconsin through which the line would run “has emerged as an incubator for innovative agricultural enterprises, a home to thriving local and organic food economies, and a destination for visitors who appreciate the area’s scenic beauty, recreational opportunities, and attractive communities.” Attachment Y, Rebuttal Testimony of Meine, at 4. The natural beauty of the region as a whole is a vital part of its appeal as a tourism destination (Attachment V at 12–15) which is ignored by the FEIS’s narrow description of impacts to tourism at specific recreation sites.

2. Property Values

While the FEIS section on property value impacts now incorporates one of the studies referenced in DALC’s and WWF’s comments, the FEIS still does not discuss the valuation guidance report by Appraisal Group One that found 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.”⁵ DEIS Comments at 65-66.

Several other concerns raised by DALC and WWF are similarly not addressed. For example, the FEIS makes no attempt to give an estimate of the total lost value for properties affected by the construction of the high-voltage transmission line. A percentage decrease in value does not provide information about the actual overall impacts to the value of property along the whole line. These gaps in the analysis must be addressed.

⁵ 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.

3. Environmental Justice

The FEIS does not adequately address environmental justice considerations. First, the FEIS improperly relied on the U.S. Census Bureau’s poverty threshold to define which populations were “low income.” FEIS Vol. II, at p. 310. The poverty threshold is, however, a very low threshold, and not appropriate for defining low income populations. For example, a family living above the poverty line may still be unable to afford housing and other basic human needs. An agency conducting an environmental justice assessment should define low income populations “more broadly than just those that fall below the poverty threshold (e.g., to include families whose income is above the poverty threshold but still below the average household income for the United States).” Technical Guidance for Assessing Environmental Justice in Regulatory Analysis, U.S. ENVIRONMENTAL PROTECTION AGENCY, at 7–8 (June 2016). Data on other socioeconomic characteristics—such as education, health, health insurance coverage, etc.—that are collected by the Census Bureau and other federal agencies should also be used to define low income populations. *Id.* at 8. EPA guidance defines “low income” as “households where the household income is less than or equal to twice the federal poverty line.” EPA, Frequent Questions about EJSCREEN, EPA.GOV, <https://www.epa.gov/ejscreen/frequent-questions-about-ejscreen#main-content> (last visited Nov. 19, 2019). Because households above the poverty level may still struggle to afford the basic necessities of life in Wisconsin, and because EPA guidance suggests using double the poverty threshold to identify “low income” environmental justice communities, it was unreasonable for the FEIS to use the poverty level to define environmental justice communities. The FEIS should utilize another metric to identify low income populations.

Second, the FEIS does not make an adequate comparison between the impacted community and an outside reference area to properly evaluate the impact on environmental justice communities. Tool Kit for Assessing Potential Allegations of Environmental Injustice, U.S.

ENVIRONMENTAL PROTECTION AGENCY, at 71, <https://www.epa.gov/sites/production/files/2015-02/documents/ej-toolkit.pdf> (Nov. 3, 2004). The FEIS compares the impacts that environmental justice communities would experience under each action alternative to “those experienced by non-environmental justice communities overlapped by the C-HC Project.” FEIS at 439. However, this does not properly address whether the impact on the environmental justice communities is “disproportionately high in the affected area compared with the reference community.” Tool Kit for Assessing Potential Allegations of Environmental Injustice, at 21. The FEIS must compare the environmental justice communities to communities that don’t have several high voltage transmission lines in order to properly determine that the environmental justice communities impacted by the CHC line do not face a disproportionate impact from the CHC project.

Third, the FEIS does not adequately analyze potential electromagnetic field (EMF) impacts. During the scoping phase of the CHC project, the U.S. EPA advised that the EIS should “analyze potential health and environmental effects associated with electromagnetic fields induced by one or more transmission lines.” Letter from Kenneth A. Westlake, Chief of NEPA Implementation Section, U.S. Env’tl. Prot. Agency Office of Enforcement and Compliance Assurance, to Dennis Rankin, Env’tl. Specialist, U.S. Dept. of Agric., Rural Utils. Servs, at 7–8 (Jan. 6, 2017). The EPA further instructed RUS to identify the disproportionate impact that electromagnetic fields may have on environmental justice communities. *Id.* However, the FEIS does not mention how electromagnetic fields may disproportionately affect such communities.

Fourth, the FEIS does not adequately assess downwind particle pollution. The FEIS does acknowledge that one study found that individuals “downwind of power lines might have 20% to 60% more [corona ion] particles deposited in their lungs than those upwind.” FEIS Vol. II, at p.

462. The FEIS asserts that these particles are unlikely to cause health effects, but it concedes that more studies are needed to determine the effects these particles cause. *Id.* Because the analysis fails to identify which environmental justice communities are located downwind of power lines, the analysis of the possible health effects of electromagnetic on environmental justice communities is inadequate.

K. Public Health and Safety

The analysis of fire risks has not been improved to address the various issues raised in DALC's and WWF's DEIS comments. DEIS Comments at 68-70. There is still no quantitative analysis of the risks posed by transmission lines generally or this line specifically. The FEIS does not acknowledge how climate change may increase fire risk in the coming decades—for example, due to more extreme weather and potentially longer and more serious dry spells. Nor does it discuss any of the actual impacts that would occur if the Cardinal-Hickory Creek transmission line started a fire—what impacts would a wildlife have on the surrounding environment and communities? The FEIS was also not updated to provide any additional information on fire risk BMPs and does not adequately explain how fire risks would be addressed or reduced. The FEIS must fully explore these issues.

L. Upper Mississippi River National Wildlife and Fish Refuge

While the FEIS's analysis of impacts to the Upper Mississippi River National Wildlife and Fish Refuge now at least acknowledges the impacts from taking down the existing transmission lines, the discussion of impacts to the Refuge is still flawed. For example, the aesthetic impacts are downplayed, and the success of mitigation measures, as well as restoration measures for the existing right-of-way, are assumed. Note that comments on the United States Fish and Wildlife Service's Draft Compatibility Determination from DALC, WWF, the National Wildlife Refuge

Association, and Defenders of Wildlife, are provided in a separate submission, which DALC and WWF incorporate herein by reference. Attachment Z.

M. Cumulative Impacts

The “hard look” requirement extends to cumulative impacts, and the analyses must include enough “detail and quantification . . . such that an objective reviewer cannot be confident that the agency took the hard look at environmental consequences that NEPA requires.” *Habitat Educ. Ctr., Inc. v. Bosworth*, 363 F. Supp. 2d 1090, 1101 (E.D. Wis. 2005). The Cumulative Impacts section in the FEIS is still very problematic. First, much of the analysis is vague and provides only generalities rather than the acknowledgement of specific cumulative impacts. For example, the cumulative impacts analysis for wildlife does little more than list other infrastructure projects in the area and acknowledge that the projects will cumulative destroy, degrade, and fragment habitat. This is not sufficient, and is actually significantly less detailed than the species-specific analysis that was found inadequate in *Habitat Educ. Ctr., Inc. v. Bosworth*, 363 F. Supp. 2d at 1100-02.

In addition, the FEIS claims that because past actions are now part of the “affected environment” described in other places in the FEIS, it is appropriate to exclude all past actions from its cumulative impacts analysis. To the contrary, describing the current setting for the proposed transmission line is in no way a legally adequate substitute for examining the cumulative impacts from the line in combination with previous projects. *Delaware Riverkeeper Network v. F.E.R.C.*, 753 F.3d 1304, 1319 (D.C. Cir. 2014), explains that a cumulative impacts analysis must consider “other actions—past, present, and proposed, and reasonably foreseeable—that have had or are expected to have impacts in the same area,” along with “the impacts or expected impacts from these other actions,” and “the overall impact that can be expected if the individual impacts are allowed to accumulate.” The FEIS necessarily does not consider the cumulative impacts from

past actions when it considers those past actions part of the baseline status quo. For example, the FEIS should discuss cumulative impacts with other recently built high-voltage transmission lines in the area, such as the Badger-Coulee or CapX2020 lines.

The geographic scopes for the various elements of the cumulative impacts analysis are improperly narrow. For example, the cumulative aesthetics impacts analysis is limited to a 2-mile area around the line. Yet as people who live, work, and recreate in the Driftless Area drive through the region, the Cardinal-Hickory Creek line, in combination with additional infrastructure projects, like other high-voltage transmission lines, will affect the overall nature of the landscape, even if the other projects are more than two miles away. Similarly, the public health and safety cumulative impacts analysis is limited to a 300 foot area. Yet individuals who will experience potential health risks from this transmission line may certainly encounter other transmission lines in their daily lives, with resulting cumulative impacts. As another example, the impacts analysis for the Refuge is limited to Pool 11 of the Refuge, yet numerous bird species migrate up and down miles and miles of the Refuge every spring and fall, and impacts to those species from collisions with the Cardinal-Hickory Creek line will be cumulative with other transmission lines and man-made infrastructure along their migration route. It is especially important that the FEIS consider cumulative impacts from other transmission lines, not only those already built, but also those that are planned, such as the Rock Island Clean Line.

And while the FEIS's expansion of the temporal scope from 40 to 60 years is a step in the right direction, 60 years is the estimated life of the transmission line, not the duration of impacts. Even if the Cardinal-Hickory Creek line is decommissioned in 60 years, the habitat destruction and many other impacts will not disappear at that time. The FEIS also continues to ignore

cumulative impacts from the various lower-voltage transmission and distribution lines that would be relocated to make room for the Cardinal-Hickory Creek line.

V. MITIGATION AND REMEDIATION

Like the DEIS, the FEIS fails to provide adequate details about mitigation and remediation measures. For example, the FEIS provides very little in the way of commitments to specific measures or information showing that the proposed measures would be at all effective in reducing impacts. RUS is required to “seek to mitigate potential adverse environmental impacts resulting from Agency actions” and ensure that “[a]ll mitigation measures will be included in Agency commitment or decision documents.” 7 C.F.R. § 1970.16. CEQ regulations require that agency records of decision for which an EIS was prepared must “[s]tate whether all practicable means to avoid or minimize environmental harm from the alternative selected have been adopted, and if not, why they were not. A monitoring and enforcement program shall be adopted and summarized where applicable for any mitigation.” 40 C.F.R. § 1505.2. These standards have not been met.

Similarly, RUS has also not explained how it will fulfill its duty to “monitor implementation of all mitigation measures during development of design, final plans, inspections during the construction phase of projects, as well as in future servicing visits.” 7 C.F.R. § 1970.16. CEQ guidance on mitigation states that “mitigation commitments should be carefully specified in terms of measurable performance standards or expected results,”⁶ and that agencies should implement a mitigation monitoring program that both “tracks whether mitigation commitments are being performed as described in the NEPA and related decision documents (i.e., implementation

⁶ Council on Environmental Quality, *Appropriate Use of Mitigation and Monitoring and Clarifying the Appropriate Use of Mitigated Findings of No Significant Impact*, at 8, https://ceq.doe.gov/docs/ceq-regulations-and-guidance/Mitigation_and_Monitoring_Guidance_14Jan2011.pdf.

monitoring), and whether the mitigation effort is producing the expected outcomes and resulting environmental effects (i.e., effectiveness monitoring).”⁷ Fully describing these aspects of proposed mitigation is important because, without appropriate documentation and monitoring, “the use of mitigation may fail to advance NEPA’s purpose of ensuring informed and transparent environmental decisionmaking. Failure to document and monitor mitigation may also undermine the integrity of the NEPA review.”⁸

The FEIS has not been updated to provide any information on what will happen to the transmission infrastructure after the estimated 40 to 60-year “life” of the project (nor is it even clear what the precise projected life is). Will the transmission line, 17-story high towers, substation, and other structures be removed? Will they be left up? Will the developers continue to maintain the ROW? This important consideration is completely neglected in the FEIS.

VI. CONCLUSION

For the reasons detailed above and in DALC’s and WWF’s earlier comments, the FEIS does not meet the requirements or purpose of NEPA. It fundamentally fails to take a “hard look” at the need for the proposed high-voltage transmission line and at reasonable alternatives, and fails to provide a full and fair analysis of the impacts of the transmission line and tall towers. NEPA requires that decisionmakers and the public are provided with a fair and unbiased analysis. DALC and WWF are confident that such a review would demonstrate that better alternatives exist than building this massive new transmission line through the Driftless Area of Southwest Wisconsin.

⁷ *Id.* at 11.

⁸ *Id.* at 2.

Respectfully submitted on behalf of the
Driftless Area Land Conservancy and the
Wisconsin Wildlife Federation by:



Howard A. Learner
Scott R. Strand
Rachel L. Granneman
Ann Jaworski

Environmental Law & Policy Center
35 East Wacker Drive, Suite 1600
Chicago, IL 60601
Phone: (312) 673-6500
Fax: (312) 795-3730
HLearner@elpc.org
SStrand@elpc.org
RGranneman@elpc.org
AJaworski@elpc.org

*Attorneys for the Driftless Area Land Conservancy
and the Wisconsin Wildlife Federation*