APPENDIX F

FEIS Comment Summary

CARDINAL-HICKORY CREEK 345-KV TRANSMISSION LINE PROJECT FINAL ENVIRONMENTAL IMPACT STATEMENT COMMENT RESPONSE REPORT

Prepared for

U.S. Department of Agriculture
Rural Utilities Service
1400 Independence Avenue SW
Mail Stop 1671, Room 2244
Washington, D.C. 20250-1571

Prepared by

SWCA Environmental Consultants
200 West 22nd Street, Suite 200
Lombard, Illinois 60148
Telephone: (630) 705-1762
www.swca.com

December 2019

CONTENTS

Appendices

Tables

ABBREVIATIONS

APLIC	Avian Power Line Interaction Committee
BMP	best management practice
CAPX2020	*CapX2020 345 kV Underground Report* (Power Engineers, Inc. 2010)
CFR	Code of Federal Regulations
C-HC Project	Cardinal-Hickory Creek 345-kV Transmission Line Project
CO_2	carbon dioxide
Dairyland	Dairyland Power Cooperative
DEIS	draft environmental impact statement
EIS	environmental impact statement
EMF	electromagnetic fields
FAA	Federal Aviation Administration
FEIS	final environmental impact statement
FERC	Federal Energy Regulatory Commission
GIS	geographic information system
IDNR	Iowa Department of Natural Resources
IUB	Iowa Utility Board
ITC Midwest	ITC Midwest LLC
kV	kilovolt
MISO	Midcontinent Independent System Operator, Inc.
MVP	multi-value project
NEPA	National Environmental Policy Act
NERC	North American Electric Reliability Corporation
NESC	National Electrical Safety Code
NOA	notice of availability
NPS	National Park Service
OHWM	ordinary high-water mark
PA	Programmatic Agreement
PSCW	Public Service Commission of Wisconsin
QA/QC	quality assurance/quality control
Refuge	Upper Mississippi River National Wildlife and Fish Refuge
ROD	record of decision
ROW	right-of-way
RUS	Rural Utilities Service
SWCA	SWCA Environmental Consultants

USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
the Utilities	Dairyland Power Cooperative, American Transmission Company LLC, and ITC Midwest LLC
WAC	Wisconsin Administrative Code
WDNR	Wisconsin Department of Natural Resources
WUS	water of the U.S.

This page intentionally left blank.

1 INTRODUCTION

1.1 Background

This report summarizes the review period implemented for the *Final Cardinal-Hickory Creek 345-kV Transmission Line Project Environmental Impact Statement,* which began on October 25 and closed on November 26, 2019. The U.S. Department of Agriculture (USDA) Rural Utilities Service (RUS) prepared the final environmental impact statement (FEIS) in compliance with the National Environmental Policy Act (NEPA) under guidance provided by RUS's *Environmental Policies and Procedures* (7 Code of Federal Regulations [CFR] 1970 et seq.). The purpose of the review period is to ensure that all interested and affected parties are aware of the Cardinal-Hickory Creek 345-kV Transmission Line Project (C-HC Project) and the release of the FEIS.

The U.S. Fish and Wildlife Service (USFWS), U.S. Army Corps of Engineers (USACE), and U.S. Environmental Protection Agency (USEPA) are serving as cooperating agencies in the environmental review process. The National Park Service (NPS) is a participating agency.

This report also summarizes the public notification associated with the release of the FEIS. Agency and public comments received during the review period are summarized. This summary includes three appendices with supplementary information related to the review period:

- Appendix A. Notices Published in the *Federal Register* and Local Media
- Appendix B. Mailing Lists for Agencies, Tribes, Local Governments, and State Representatives
- Appendix C. Public Comment Coding Structure

To review public comment letters received during the FEIS review period, visit the RUS website, as follows:

https://www.rd.usda.gov/publications/environmental-studies/impact-statements/cardinal-%E2%80%93-hickory-creek-transmission-line

2 FINAL ENVIRONMENTAL IMPACT STATEMENT REVIEW PERIOD

The following section summarizes the process followed by RUS to notify the public of the FEIS review period.

2.1 Mailing Address

Through all project notifications, stakeholders were encouraged to send written comments to RUS and SWCA Environmental Consultants (SWCA). The mailing address provided was as follows:

SWCA Environmental Consultants
Attn: Cardinal-Hickory Creek EIS
80 Emerson Lane, Suite 1306
Bridgeville, Pennsylvania 15017

2.2 Email Address

SWCA established a project-specific email address for submittal of electronic public comments: comments@CardinalHickoryCreekEIS.us.

RUS also collected comments on the FEIS through the project managers' email addresses: lauren.cusick@usda.gov or dennis.rankin@usda.gov, which was provided in the FEIS notice of availability (NOA) and the press release.

2.3 Notice of Availability

Two NOAs were published in the *Federal Register* to notify the public that the FEIS was available for review. RUS published their NOA in the *Federal Register* on October 23, 2019. The EPA published their NOA for the FEIS on October 25, 2019. The EPA's NOA serves as the official public announcement of the release of the FEIS. The NOA published on October 25, 2019, initiated the 30-day review period. The NOAs are provided in Appendix A.

2.4 Media Notifications

Legal announcements, display advertisements, and press releases were provided to newspapers, television stations, and radio stations during the FEIS review period.

2.4.1 *Newspapers*

Legal notices were placed in local newspapers for 1 week in late October (the week of October 21, 2019) announcing the NOA and FEIS Table 2-1). The legal notices (see Appendix A) identified locations where copies of the FEIS were available and information on how to comment.

Table 2-1. Newspapers in which Legal Notices Were Placed

Newspaper	Address	Date
Dodgeville Chronicle	106 West Merrimac Street, Dodgeville, Wisconsin 53533	October 24, 2019
Dubuque Telegraph-Herald	801 Bluff Street, Dubuque, Iowa 52001	October 23, 2019
Grant County Herald Independent	208 West Cherry Street, Lancaster, Wisconsin 53813	October 24, 2019
Platteville Journal	25 East Main Street, Platteville, Wisconsin 53818	October 23, 2019
Tri-County Press	223 South Main Street, Cuba City, Wisconsin 53807	October 24, 2019
Middleton Times/Star News/Mount Horeb Mail (News Publishing Company, Inc.)	1126 Mills Street, Black Earth, Wisconsin 53515	October 24, 2019
Wisconsin State Journal	1901 Fish Hatchery Road, Madison, Wisconsin 53713	October 24, 2019
Guttenberg Press	10 Schiller St., P.O. Box 937, Guttenberg, Iowa 52052	October 23, 2019

Note: The display ad for *Star News* ran on October 31, 2019, due to an error by the newspaper.

An example display advertisement is provided in Appendix A.

SWCA prepared press releases (see Appendix A) and sent them to the print or online media outlets listed in Table 2-2 on October 22, 2019, for the NOA and FEIS. Press releases were also sent to the newspapers listed in Table 2-1 above.

Table 2-2. Print or Online Media Outlets to which Press Releases Were Distributed

Print or Online Media Outlet	
Agri-View	*Star News* (Cross Plains-Black Earth and Mazomanie, Wisconsin)
Exponent, University of Wisconsin-Platteville	*Republican Journal*
Fennimore Times	*The Country Today*
Living Lake Country Reporter	*Tri-County Press*
Mineral Point Democrat Tribune	Wisconsin Public Radio – Online
27 News at 10 – WKOW-TV	*Grant County Herald Independent*
The Dodgeville Chronicle	*Guttenberg Press*
Middleton Times Tribune	*The Platteville Journal*
Telegraph Herald	*Wisconsin State Journal*
WISC-TV	WMTV-TV

2.4.2 *Television Stations*

Press releases were sent to the six television stations listed in Table 2-3.

Table 2-3. Television Stations to which Press Releases Were Distributed

Television Station	Location
WHA-TV (Wisconsin Public Television)	Madison, Wisconsin
WISC-TV	Madison, Wisconsin
WKOW-TV 27 News at 10	Madison, Wisconsin
WMTV-TV	Madison, Wisconsin
WHLA-TV (Wisconsin Public Television)	La Crosse, Wisconsin
KFXB-TV	Dubuque, Iowa

2.4.3 *Radio Stations*

Press releases were sent to the 24 radio stations listed in Table 2-4.

Table 2-4. Radio Stations Where Press Releases Were Distributed

Radio Station	
W215AQ 90.9 FM (Middleton and West Madison, Wisconsin)	97 FM (Platteville, Wisconsin)
WERN 88.7 FM (Madison, Wisconsin)	106.1 FM (Platteville, Wisconsin)
92.1 FM (Madison/Middleton, Wisconsin)	107.1 FM (Platteville, Wisconsin)
96.3 FM (Madison/Middleton, Wisconsin)	QueenB Radio (Platteville, Wisconsin)
1070 AM (Madison/Middleton, Wisconsin)	WSSW 89.1 FM (Platteville, Wisconsin)
WIBA 101.5 FM (Madison/Middleton, Wisconsin)	WSUP 91 FM (Platteville, Wisconsin)
WIBA 1310 AM (Madison/Middleton, Wisconsin)	97.3 FM (Dubuque, Iowa)
Z-104 (Madison/Middleton, Wisconsin)	101.1 FM The River (Dubuque, Iowa)
Wisconsin Radio Network	KAT 92.9 FM (Dubuque, Iowa)

Radio Station	
WNWC 102.5 FM and AM, Life	KDTH 1370 AM (Dubuque, Iowa)
WDMP 810 AM/99.3 FM (Dodgeville, Wisconsin)	KNSY 89.7 FM (Dubuque, Iowa)
WHHI 91.3 FM (Dodgeville, Wisconsin)	Q107/5 FM (Dubuque, Iowa)

2.5 Direct Mailings

On December 3, 2018, letters were sent to Federal and State agencies, tribes, and members of the public notifying them of the availability of the FEIS for the C-HC Project. Appendix B contains the mailing lists for agencies, tribes, local governments, and State representatives. Members of the public, 947 in total, were also notified via email or hard-copy letters.

2.6 Information Available via the Internet

RUS developed a project website to provide information available to the public, and the FEIS was made available for public review on the website. The address for the RUS website is as follows:

> https://www.rd.usda.gov/publications/environmental-studies/impact-statements/cardinal-%E2%80%93-hickory-creek-transmission-line

3 COMMENT COLLECTION AND ANALYSIS METHODS

RUS has reviewed all comments received through November 26, 2019, as well as comments received after the close of the FEIS review period. The comments are summarized herein. RUS and SWCA collected comments using two methods. First, comment forms or original letters were encouraged to be mailed to the following address:

> SWCA Environmental Consultants
> Attn: Cardinal-Hickory Creek EIS
> 80 Emerson Lane, Suite 1306
> Bridgeville, Pennsylvania 15017

Second, comments were collected using the email address comments@CardinalHickoryCreekEIS.us.

RUS also collected hardcopy and email comments from the public and agencies. All comments received by RUS were forwarded to SWCA for tracking and coding. As comments were received, throughout the review period, SWCA followed a comment handling and processing protocol to ensure that all comments were accurately reflected in the EIS comment database and this report.

All hard-copy comment letters and forms mailed to SWCA were date-stamped, scanned, and then saved into a project-specific electronic folder. Letters requesting additional information, a comment period extension, requests for additional public meetings, or a letter expressing safety or security concerns were flagged for immediate attention by the SWCA project manager.

Emailed comments were treated in a similar fashion. One difference is that the C-HC Project email account was periodically monitored throughout the comment period, and all emailed comment letters and attachments were entered into the comment database immediately after the close of the public comment period.

After all comments were saved in an electronic format, each commenter's contact information was entered into the database to update the project mailing list. Each letter submitted by an individual was also manually entered into the database and related to the commenter's contact information. For example, one commenter may have submitted several different comments. Within the comment database, all comments submitted by one individual are linked together. As comments were entered into the database, each letter was then saved as a PDF and renamed using the following naming convention: "Letter_[number]_[last name]." Letters with attachments were entered into the database following the same method listed above, and the attachments were saved in a folder for review and consideration by the Federal agencies.

After all letters and emails were entered into the comment database, SWCA coded all comments contained within each entry. It is important to note that one comment letter can contain several comments that relate to different topics, concerns, or issues. The coding structure provided in Appendix C illustrates how the various comments were coded. This comment coding structure is used in the remaining sections of this report to explain the number and types of comments received during the C-HC Project FEIS review period. At the completion of comment coding, the database was used to create reports that categorized the various comment types and to synthesize the submitted information presented within this report.

Throughout the comment entry and coding process, SWCA completed quality assurance/quality control (QA/QC) checks to ensure all comments were entered correctly and accurately. QA/QC was also used to ensure comment coding was consistent with the previously described coding structure. Electronic copies of all comment letters and forms were provided to RUS for review upon close of the FEIS review period.

4 COMMENTS RECEIVED

The following sections provide a summary of the public comments received. Section 4.1 summarizes the number of comments received by entity or organization. Section 4.2 provides a table of all public comments received, how the public comments were coded, and the response from RUS.

4.1 Summary of Written Submissions

In total, 73 comment letters were received during the FEIS review period. Two letters were received after the draft environmental impact statement (DEIS) comment period and were coded with the FEIS comments to ensure they were addressed properly. Four of these 75 comment letters were duplicate letters. Government entities and organizations submitting comments are listed in Tables 4-1 and 4-2. All other commenters were individuals, listed in Table 4-3.

Table 4-1. Federal Agency that Submitted Comments

Government Agency	Date Letter Was Received
U.S. Environmental Protection Agency	November 22, 2019

Table 4-2. Non-governmental Organizations that Submitted Comments

Organization	Date Letter Was Received
Environmental Law and Policy Center	July 25, 2019; November 25 and 26, 2019
Ice Age Trail Alliance	November 13, 2019
Iowa Environmental Council	November 26, 2019

Organization	Date Letter Was Received
National Audubon Society	November 26, 2019
The C-HC Project Utilities	November 22, 2019
Wisconsin Green Fire	November 26, 2019

Table 4-3. Members of the Public who Submitted Comments

Members of the Public	Date Letter Was Received
Anderson, Susan	November 25, 2019
Bach, James	November 11, 2019
Baker, Marie	October 22, 2019
Bartels, Michele	November 5, 2019
Baum, Mary Kay	November 25, 2019 (×2)
Beckett, Caroline	November 24, 2019
Berg, Karl	October 28, 2019
Berg, Lynn	October 28, 2019
Bradshaw, Roger	October 28, 2019
Breslow, Robert	November 24, 2019
Campbell, Donald H.	October 18, 2019; November 24 and 25, 2019
Christee, Joyce	October 18, 2019
Citron, Michelle	November 24, 2019
Craven, Scott R.	July 31, 2019
D'Angelo, Betsy	November 25, 2019 (×2)
Dybdahl, David J.	October 28, 2019
Eide, Debra	November 25, 2019
Enloe, Myra	November 4 and 6, 2019
Gardner, Sue	October 29, 2019
Gauger, Aimee	November 8, 2019
Hyer, Greg	October 23, 2019
Jensen, Leslie	October 19, 2019
Jensen, Rick	October 19, 2019
Kelen, Linda	November 25, 2019
Kraft, Maggie	October 29, 2019
Kritz, Mary and Douglas T. Gurak	November 25, 2019; December 3, 2019
Kurt, Dena	November 25, 2019
Kylloe, Kurt	November 21, 2019
Laufenberg, Susan	October 29, 2019
Lind, Carol	November 23, 2019
Luecke, Jean	November 1, 5 (×2), 21, 24, and 25, 2019
Luecke, Ronald	November 24, 2019
McConnell, Patricia B.	October 31, 2019
McGee, Aaron	November 25, 2019

Members of the Public	Date Letter Was Received
Michmerhuizen, Susan	November 24, 2019
Mittelstadt, Mark	November 22, 2019
Moe, Pamela	November 1, 2019
Myers, Ellen	November 4, 2019
Neton, Jason	November 11, 2019
Peckarsky, Barbara L.	November 1, 2019
Pincus, Allen	November 24, 2019
Powell, Christine	October 29, 2019
Public, Jean	October 29, 2019
Publiee, Jean	October 19, 2019
Reisinger, Anastasia	November 6 and 12, 2019
Russell, Michael E.	November 24, 2019
Schuldt, Carolyn	October 25, 2019
Scott, Tim	November 2, 2019
Sukowaty, Mark	November 12, 2019
Tallard, Jeff	October 28, 2019
Vivian, Jean	November 15, 2019
Zastrow, Lila and Hendrickson, Dave	November 18, 2019
Zedler, Joy	November 12, 2019

SWCA identified 422 individual comments contained within the comment letters (excluding duplicates). A summary of the public comments received and organized by concern, issue, or resource topic is presented in Table 4-4, in order of the greatest number of comments received to the least number of comments received. Some comments addressed multiple topics and were associated with several comment codes. Therefore, the total number of comments reported in the table below tallies 492 comments.

Table 4-4. Summary of Final EIS Comments Received, by Topic

Topic	Number of Comments
Decision Process	75
Vegetation	49
Wildlife	47
Socioeconomics	45
Alternatives	40
Water Resources	36
NEPA/Purpose and Need	34
Effects Analysis	31
Land Use	30
Public Involvement	21
Visual Resources	18

Topic	Number of Comments
Public Health and Safety	16
Recreation	16
Soil	11
Air Quality/Climate Change	10
Cultural Resources	6
Transportation	3
Noise	2
Geology	1
Editorial	1
Total	**492**

Public Comments Received

Table 4-5 below provides the public comments received organized by comment code(s) and includes a response from RUS for each comment.

Table 4-5. Public Comments Received

Organization	Commenter Last Name	Comment Code(s)	Comment on FEIS	Agency Response to Comment
	Schuldt	DECI13	Being a native of Platteville, Grant County, Wisconsin and an active environmentalist, I am writing to voice my deep fear of and objection to the proposed transmission line in my home county and SW Wisconsin...I live in Peoria but keep "tabs" on Driftless Conservancy activities and admire what they and their supporters are endeavoring to do--STOP THIS UNNECESSARY DANGEROUS TRANSMISSION LINE AS IT IS PROPOSED OUT OF MY HOME COUNTY... I have been in contact with the Driftless Conservancy in Dodgeville and stopped by in April to get further details on this "project" and find it unwanted generally by the people of the area affected.	Comment noted.
	Schuldt	PUB01	.I reside in Peoria but still own property in Platteville and thus am taxpayer and do formally voice my opinion on it--don't let this happen!! There is enough disruption in our environment and safety today for further damage our land and endanger its concerned citizens. Though I cannot voice my strong anti-transmission line views personally or give testimony, I am still forwarding this comment in the hopes that it reaches you in time. I hope and pray the voice of the majority of our concerned citizens will lead to disapproval of this project as currently proposed.	Comment noted.
	Powell	DECI13	I am really disappointed that you would even think to allow the power line to go through this area.	Comment noted.
	Powell	WLDLF01	We need to continue to protect our wildlife areas for all future generations. Just say no.	Comment noted.
	Dybdahl	ALT01 TRANS02	The route selected should not impact area that do not have public works project now. Keep the industrial human impacts to a minimum. Do not run north of highway 18 after Dodgeville to save dollars.	Comment noted.
	Campbell	AIR04	The application to construct the Cardinal-Hickory Creek power line has been approved by the Wisconsin Public Service Commission. However, the commissioners apparently did not consider the fact that the line will continue to transmit energy made largely from carbonbased fuels (about 65%) for the next several years. This is precisely not the time to utilize these fuels. The attempt to do so contradicts our absolute imperative to bring down atmospheric emissions of carbon dioxide and methane, the principal ingredients causing our climate crisis. CO2 emissions reached an all-time high in 2018 and methane, a gas more potent than CO2, is increasing at 10% per year (Global Carbon Project). The PSC, and even the Department of Natural Resources, appear to have made decisions largely on a basis of a Businessas- Usual premise, clearly not an environmentally sound justification.	FEIS Section 4.4.5 addresses the potential contribution of greenhouse gas emissions from a range of generation sources that could be served by the C-HC Project.
	Publiee	DECI13	PRIVATE LAND OR LEASE PRIVATE LAND FOR THIS PURPOSE. WHY THE HECK DO THEY HAVE THE RIGHT TO INVADE AND DESTROY EVERY BIT OF NATIONAL LAND FOR THEIR PROFITEERING., THE PUBLIC WHO OWNS THAT LAND GETS NOTHIG FOR THAT. WHAT THEY GET IS ENDLESS FIRES CAUSED BY TEH CHEAP WAY WE LET THESE USA PROFITEERS RUN THEIR LINES, I.E. PACIFIC GAS AND ELECTRIC. THE TAXPAYER SARE BEING MADE FOOLS OF BY A FOREST SERVICE THAT IS DOING NOTHING TO PROTECT THEM . OUR KIDS ARE LOSING NATURE EVBERY SINGLE DAY BY THE CATASTROPHIC WAY THAT OUR LANDS ARE BEING LOST TO ANIMALS AND TREES AND THE TREES THEMSELVES ARE OUR ONLY HOPE OF AVOIDIUNG CLIMATE CATASTROPHE. THESE PROFITERES COME IN AND MOW DOWN THE TREES AND CREATE AREAS WHERE NO ANIMAL CAN SURVIVE ANYMORE AND THEN THEY START FIRES. KEEP NATIONAL LANDS FOR THE 328 MILLION PEOPLE WHO OWN THEM. WE DONT OWN AND PAY FOR THEM SO THAT THESE PROFITEERS CAN RUN UP AND HURT US AND OUR LANDS. THE CHEAP CHEAP RATES THAT THIS AGENCY LETS THE PROFITEERS PAY IS AN INSULT TO NATIONAL CITIZENS OF AMERICA. WE ARE BEING OVERRUN WITH BEING TAKEN ADVANATAGE OF. THIS COMMENT IS FOR THE PUBLIC RECORD.	Comment noted.
	Publiee	PUB05	PLEASE RECEIPT.	Comment noted.
	Public	SOCIO01	i see absolutely no reason why u.s. taxpayers are being suckered in to pay for this line expansion. if the dairy land wants bigger lines, they are making enough money to pay for that thenmselves. they have financing available to power companies. why are americans country wide paying for an iowa transmission line. i see absolutely no reaons for this. is it political in nature to buy iowa vcoters or what is gonig on here? why are us taxpayers country wide being suckered into paying for htis?? also thes	FEIS Chapter 1 describes the need for the C-HC Project, as well as the decisions facing the three Federal agencies that have received loan or permit applications for the C-HC Project.
	Tallard	ALT04	Is anyone following the news regarding Tesla solar shingles? Advancements in battery storage technology and advances like solar shingles could completely change the way we view power distribution. I hope we dont look back 10 or 20 years from now only to find that we ruined the beautiful landscape unnecessarily.	FEIS Section 2.2.2 provides rationale for not carrying forward non-transmission, lower-voltage, and underground alternatives for detailed analysis.
	Christee	PUB01	What difference will it make? They haven't listened to any comments so far.	Comment noted.
	Kraft	DECI13	I am opposed to this line being installed	Comment noted.
	Kraft	DECI13	I am opposed to this line being installed	Comment noted.
	Baker	DECI13	My husband and I moved to our present home one mile north of Governor Dodge State Park in 1988. We feel so fortunate to have raised our two daughters on this beautiful ridge bounded by two deep wooded valleys with ancient rock outcroppings and clear springs and streams on each side. We've all developed a strong love and connection to this incredibly unique and rare driftless area.	Comment noted.
	Baker	NEP02	The idea of 17 story towers for a high-voltage transmission line coming through here feels like a permanent violent attack on us and the land, especially because this line is not needed. Electricity demand is flat and projected to decline. Wisconsin and the Midwest have excess power supply and one of the most reliable regional grid systems in the U.S.	FEIS Chapter 1 describes the need for the C-HC Project, as well as the decisions facing the three Federal agencies that have received loan or permit applications for the C-HC Project.
	Baker	SOCIO01	This line would cost rate-payers more than $1 billion for construction costs, maintenance and a guaranteed 10.2% over the 40 year life expectancy of the line.	The Public Service Commission of Wisconsin (PSCW) has reviewed and approved the C-HC Project in terms of all requirements associated with Wisconsin Statute 196.491(3), in accordance with their jurisdictional authority and responsibility. This includes consideration of costs and benefits for Wisconsin ratepayers (see Section 1.2.2.1 of PSCW [2019]).

Organization	Commenter Last Name	Comment Code(s)	Comment on FEIS	Agency Response to Comment
	Baker	SOCIO06	Our property values would be lowered, reducing revenues for counties and townships; and homes, businesses and properties would be harder to sell. Even the possibility of the line coming through has made it nearly impossible for some homeowners to sell now. For years, this has been a popular area to own a vacation or retirement home, but now that appeal will disappear, and with it, valuable revenue to support schools, road and bridge maintenance, and local businesses	FEIS Section 3.12 discloses potential impacts to property values.
	Baker	SOCIO03	Tourism is a large part of our area income, but the ugly towers would repel, rather than attract visitors to places like American Players Theater, Taliesin, House On The Rock, Global View, Mineral Point's Shake Rag Alley and Opera House, as well as countless galleries and shops, restaurants, picturesque towns, and rivers, lakes, and parks.	FEIS Section 3.12 discloses the potential impacts to tourism from the proposed C-HC Project.
	Baker	REC01	Hunting, fishing, kayaking, canoeing, biking, horseback riding, camping, swimming, snowshoeing, skiing, and other vacation activities would decline. The towers and line would run 125 miles through the nationally significant Driftless Area, the Upper Mississippi River Fish and Wildlife Refuge, Black Earth Creek Watershed Area, Military Ridge Prairie Heritage Area, and several public state parklands and recreation areas.	FEIS Section 3.14 discloses potential impacts to resources within the Upper Mississippi River National Wildlife and Fish Refuge (Refuge). FEIS Section 3.10 discloses potential impacts to land use, including recreation areas and natural areas.
	Baker	WLDLF04	We have countless threatened and endangered plant and animal populations which would be hurt or destroyed. The wide swath under the lines would fragment critical ecosystems.	FEIS Sections 3.3 and 3.4 discloses the potential impacts to habitats and wildlife from the proposed C-HC Project.
	Baker	WLDLF01	According to University of Wisconsin research, southwest Wisconsin forests have warmer micro climates that help songbirds survive cold winters. Broken up forest fragments are less effective and increase bird mortality. CHC would create many forest fragments, threatening bird survival.	FEIS Section 3.3 discloses potential impacts from vegetation fragmentation and FEIS Section 3.4 discloses potential impacts to bird species from the proposed C-HC Project.
	Baker	VEG03	The toxic sprays to control undergrowth would be harmful to the health of soil, water, plants, animals, and humans. Wisconsin law clearly intends to avoid unnecessary impacts to the environment, including natural and cultural resources. Large sections of the proposed CHC transmission line do not follow the priorities set forth in Wisconsin law.	FEIS Section 3 discloses the potential impacts to resources from the potential use of herbicides for the proposed C-HC Project. Additionally, the State of Wisconsin approved the project through the PSCW and Wisconsin Department of Natural Resources (WDNR) EIS process (PSCW 2019b).
	Baker	ALT04	A line can lose 4.2 percent of generated power for every 100 miles traveled. Gridwise Alliance said Wisconsin is 39th out of 50 states in progress toward a modernized electric grid. More reliable 21st century energy models are already in place around the country. We should invest in clean solar energy, wind power, energy efficiency, and energy storage right here, providing jobs and a clean energy economy. The most realistic and low cost energy plan is for decentralized micro-grids that generate power locally and can be coupled and then uncoupled when theres a danger of wide spread black outs, so are more reliable in preventing massive grid level failures. The electrical grids in New York State, as well as grids on our military bases, are being remade as micro-grids. Clearly, the Department of Defense knows that decentralized grids are more reliable. And then there is hacking. On March 15, 2018 the Department of Homeland Security sent an alert laying out how our grid, power plants, and other utilities were hacked by the Russians. As for Wisconsins grid reliability, US News and World Reports ranks us 7th in the nation in grid reliability.	FEIS Section 2.2.2 provides rationale for not carrying forward non-transmission, lower-voltage, and underground alternatives for detailed analysis. FEIS Section 3.13 discusses potential risks from security breaches.
	Baker	VEG01	Another problem with a large scale grid is fire danger. State officials have determined that electrical equipment owned by PG&E, including power lines and poles, was responsible for at least 17 of 21 major fires in Northern California during one season.	Comment noted.
	Baker	DECI13	My husband and I have long been committed to sustainable energy, so we do as much as possible with our limited income. Our energy related improvements could be accelerated by enhanced incentives/rebates on energy efficiency, load management, and development of on-site and community solar. We have low-flow shower heads and faucets. As our compact florescent lights wear out, we're transitioning to LEDs. Our electric hot water tank is insulated and is set to 110 degrees. We have Energy Star appliances: a front loading washer, refrigerator, two freezers, and a gas stove which runs on propane. We have a programmable thermostat for our propane gas furnace. We use a wood cook-stove for all our heat and cooking in the winter, except for the few days we're away when the gas furnace is used. We have a ceiling fan, but no air conditioner, clothes dryer, or dishwasher. We have 25 year old thermopane windows, and excellent insulation. We have many south facing windows which supply plenty of solar heat in winter, and help grow pots of lettuce and tomatoes in the cold months. We installed 22 solar panels two years ago which supply all our electrical needs. We have a 2013 plug-in hybrid Prius, and we hope to buy a fully electric car when our budget allows and there are more charging stations available. We have a 220 volt charger for faster charging. We eat a whole-food plant-based diet, and organically grow and preserve large amounts of our own food. Much of the rest of our food is organic and locally grown. Since we planted a sustainable, pollinator-friendly landscape with only a mowed grass strip around the edges, we've enjoyed an increase in helpful insects, butterflies, and birds. In short, many others like us are living more sustainably, and are strongly in favor of moving forward with wise energy plans, not just what will give the energy corporations higher profits at the expense of the environment and rate-payers.	Comment noted.
	Jensen	NEP02	The main reason for my opposition to these transmission lines is that they are NOT needed. The energy usage in Madison is either flat or decreased due to better conservation. Wind and solar power are increasing in usage in the region and should be encouraged with financial incentives. The high voltage transmission lines are outdated energy.	FEIS Chapter 1 describes the need for the C-HC Project, as well as the decisions facing the three Federal agencies that have received loan or permit applications for the C-HC Project.
	Jensen	SOCIO01	Only the Utility Companies stand to gain financially from this project: customers in this area will be bearing most of the cost. The damage to the environment, the wildlife, and possibly water quality will be irreparable.	Comment noted.
	Jensen	SOCIO03	This unique scenic area relies on tourism: this will have a large negative impact on the local economy and property values. Those of us who chose to live here for the natural beauty of the Driftless Region implore you to stop this unnecessary project that will change the landscape as well as the quality of life for generations	FEIS Section 3.12 discloses the potential impacts to social and economic conditions, including tourism and property values, from the proposed C-HC Project.
Retired	Jensen	DECI13	As I write this short review the cynicism in me rises. I have felt for some time that minds have been made up and the almighty dollar wins again. Cardinal-Hickory will go through regardless of so many legitimate protestations.	Comment noted.
Retired	Jensen	NEP02	Regardless, the project does not help Wisconsin energy end users. It is a dollar grab for special interests and that does not speak well for oversight agencies that are suppose to be looking out for our consumer interests.	FEIS Chapter 1 describes the need for the C-HC Project, as well as the decisions facing the three Federal agencies that have received loan or permit applications for the C-HC Project.

Organization	Commenter Last Name	Comment Code(s)	Comment on FEIS	Agency Response to Comment
Retired	Jensen	SOCIO06 VIS01	The Driftless Area is priceless and once you go down this blight on the landscape you cant go back. Farmers and property owners will be negatively impacted both visually and through property values that will go down. That can also impact tax revenue in the long run. Even though this decision has been dragged on for years, giving the impression that it is well thought out, at its core it remains a short sited, and bad enterprise at its core.	FEIS Section 3.12 discloses the potential impacts to property values from the proposed C-HC Project. FEIS Section 3.11 discloses potential impacts to visual quality and aesthetics. FEIS Section 3.10 discloses potential impacts to land use, including agriculture.
Driftless Area Land Conservancy	Granneman	ALT01 REC02	This letter is to express my concern about the limited scope of alternatives review for the proposed Cardinal-Hickory Creek (CHC) high-voltage transmission line. This transmission line as currently proposed cuts directly across the Upper Mississippi River National Wildlife and Fish Refuge (Refuge). This refuge is at the heart of the Mississippi Flyway for migratory birds and provides critical protected habitat for a number of species. It is also an important recreation and economic resource. While the state processes in Wisconsin and Iowa will likely decide whether another high-voltage line is genuinely needed, I urge the United States Fish and Wildlife Service (USFWS) to take the necessary steps to ensure that alternatives that avoid negative impacts on the Refuge are fully explored and understood before any decisions are finalized. Reasonable alternatives must be explored. Making the Refuge the de facto route simply because it is determined to be the path of least political resistance is unacceptable in my view. Until alternatives that avoid the Refuge get a full and complete review, this project should not go forward.	FEIS Section 2.2 describes the other Mississippi River crossing alternatives that were studied and evaluated by Dairyland Power Cooperative, American Transmission Company LLC, and ITC Midwest LLC (the Utilities) prior to engaging the NEPA process with RUS. These other Mississippi River crossing alternatives were eliminated because they were not permissible by other agencies or governments with jurisdictional authority or were not technically feasible.
Driftless Area Land Conservancy	Granneman	DECI09	As you well know, under the National Wildlife Refuge System Improvement Act of 1997, P.L. 105-57, the singular mission is of the System is "the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans." 16 U.S.C. 668dd(a)(2). "[T]he fundamental mission of our System is wildlife conservation: wildlife and wildlife conservation must come first." H. Rep. 105-106. "Compatible wildlife-dependent recreational uses"- hunting, fishing, wildlife observation and photography, environmental education and interpretation-are deemed the "priority general public uses of the System." 16 U.S.C. 668dd(a)(3)(C). The law provides that the Secretary "shall not initiate or permit a new use of a refuge or expand, renew, or extend an existing use of a refuge, unless the Secretary has determined that the use is a compatible use," which means that "in the sound professional judgment of the Director, [the use] will not materially interfere with or detract from the fulfillment of the mission of the System or the purpose of the Refuge." 16 U.S.C. 668ee(l). Indeed, the Act directs the Fish and Wildlife Service to "provide for the elimination or modification of any use as expeditiously as practicable after a determination is made that use is not a compatible use. 16 U.S.C. 668dd(d)(3)(B)(vi). USFWS recognizes that the Upper Mississippi River National Wildlife and Fish Refuge is "unmatched" for its scenic and wildlife value. This Refuge 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. Given the value of the Refuge and the importance of protecting it, the most stringent review should be conducted of any project that would compromise this protected area.	USFWS has reviewed all public comments submitted for the draft compatibility determination contained in FEIS Appendix J. USFWS has found the proposed transmission line right-of-way (ROW) across the Refuge, as described in the FEIS as Alternative 6 and described in the ROW application from ITC Midwest LLC (ITC Midwest) and Dairyland Power Cooperative (Dairyland), to be compatible. See record of decision (ROD) Appendix B for the signed compatibility determination.
Driftless Area Land Conservancy	Granneman	ALT01 REC02	This review must ensure all reasonable non-Refuge-crossing alternatives are appropriately identified, analyzed, fully evaluated, and subjected to public comment and input. This has not been the case in the current review process for the CHC project. In fact, the draft EIS that came out several months ago does not seriously evaluate a single alternative that does not cut through the Refuge at Cassville, Wisconsin. Failure to fully assess alternatives that avoid the Refuge and protect its resources- including protected species that use Refuge land and waters, such as bald eagles and whooping cranes, and investments made in restoration- raises concerns and will undermine the FEIS.	FEIS Section 2.2 describes the other Mississippi River crossing alternatives that were studied and evaluated by the Utilities prior to engaging the NEPA process with RUS. These other Mississippi River crossing alternatives were eliminated because they were not permissible by other agencies or governments with jurisdictional authority or were not technically feasible.
	Gardner	ALT01 REC02	I urge the Fish and Wildlife Service to require further consideration and evaluation of alternative routes if this line is deemed necessary to be built at all. I strongly oppose the plan of crossing the upper Mississippi River floodplain habitat which is vital for wildlife, fish and migrating birds as well as being a critical wetland. We must not further impinge upon these extremely important natural areas.	FEIS Section 2.2 describes the other Mississippi River crossing alternatives that were studied and evaluated by the Utilities prior to engaging the NEPA process with RUS. These other Mississippi River crossing alternatives were eliminated because they were not permissible by other agencies or governments with jurisdictional authority or were not technically feasible.
	Laufenberg	SOCIO06 VIS01	I have a couple of comments in regard to your Final Environmental Impact Statement issued October, 2019. First of all, thank you for your time and extensive research in regard to the impact the Cardinal-Hickory Creek project will have on the residents of Wisconsin. My husband and I will be directly impacted by the Alternatives 4, 5 and 6 routes for the project, both aesthetically and financially. We live adjacent to Segments T and U of the routes. I was shocked by Table 3.11-2 of the Impact Statement. I am curious as to whether our residence at 3320 Sugar Valley Rd, Mount Horeb is included in the 53 residences outside the ROW but within the Analysis Area. We are but a football field away from a large corner post planned for segment U in Alternative 5, I would think that if we are not in the private residence count, the Analysis Area is much too narrow. The corner post will be directly in front of our main entrance door and windows. I am certain the financial impact of this corner post will be far greater than the 20% decrease in property value referred to in the study. I believe there must be hundreds of other residences along the proposed routes barely beyond the 300 foot Analysis Area that would be very adversely impacted. I feel that using a mere 300 foot Analysis Area does not provide realistic data. Also, since the transmission line runs along some ridges, as in Segments T and S, there will be hundreds of residences greatly affected aesthetically by routes 4, 5 and 6. Furthermore, the routes will take a horseshoe path around the Village of Mount Horeb, in direct view of most of the residences of that village.	FEIS Section 3.11 discloses potential impacts to visual quality and aesthetics from the proposed C-HC Project. This section includes numerous representative photos and visual simulations of potential changes in the landscape and viewshed resulting from the C-HC Project at different distances from the proposed transmission line, ranging from 150 feet to 2+ miles.
	Laufenberg	VIS01	Also, since the transmission line runs along some ridges, as in Segments T and S, there will be hundreds of residences greatly affected aesthetically by routes 4, 5 and 6. Furthermore, the routes will take a horseshoe path around the Village of Mount Horeb, in direct view of most of the residences of that village.	Potential impacts to visual resources for all alternatives are disclosed in FEIS Section 3.11.
	Laufenberg	WAT02	Also, in regard to Segment U: the corner post referred to above is extremely close to the Sugar River Tributary with a downward slope to the river. I believe this would make a huge negative impact on the Sugar River, both in the Segment U area and all the way downstream. This in itself would deter Alternative 5 from being the Environmentally Preferable Alternative.	FEIS Section 3.5 discloses potential impacts to water resources and quality, including impacts to surface water.
	Laufenberg	NEP02	Another concern I have with the EIS, is in Volume 4. Specifically, the projected increase in energy needs. Table A-1, Electrical usage for1999-2014 shows that there is a very small percentage increase in energy usage from years 2010-2014. I believe this would be more indicative of projected future needs rather than using outdated data from 20 years ago. The residents of Wisconsin have been on board in recent years with conserving energy and using alternative energy sources and storage. Therefore, I believe the use of more recent data in calculating future usage is much more accurate. I hope and pray that our comments on the EIS are taken very seriously on the decision to recommend that federal funds be used to finance this extremely detrimental project.	FEIS Chapter 1 describes the need for the C-HC Project, as well as the decisions facing the three Federal agencies that have received loan or permit applications for the C-HC Project.

Organization	Commenter Last Name	Comment Code(s)	Comment on FEIS	Agency Response to Comment
	Hyer	PUB01	I think its a major uphill fight thought locals put on a good case to PSC and it fell on deaf ears cant imagine Trump Admin will want to find a issues	Comment noted.
	McConnell	DECI13 SOCIO01	Based on all available information, this CHC project is unnecessary, an economic boondoggle, and worst of all, an environmental disaster, all at the expense of the citizens and ecological health of our state.	Comment noted.
	McConnell	SOCIO07	Although the lines would not be built directly on our land, they would have a profound, and negative effect on my and my husbands life, as well as on the lives of hundreds of thousands of others who live here or travel from other areas. Like so many, we walk,hike and watch wildlife year round in many of the areas that would be affected by the construction of highpower transmission lines.	FEIS Section 3.4 discloses potential impacts to wildlife. FEIS Section 3.10 discloses potential impacts to land use, including recreation.
	McConnell	WLDLF04	my primary concern is for the environmental health of the unique lands of the Driftless area, lands that include priceless habitat for several endangered, threatened and rare species.	Comment noted.
	McConnell	DECI08 REC02 WLDLF02	NEGATIVE EFFECTS ON THREATENED SPECIES OF BIRDS IN THE MISSISSIPPI FLYWAY Many threatened and at risk bird species rely on the Upper Mississippi River National Wildlife and Fish Refuge near Cassville, Wisconsin. If high power lines are built to cross the 1.6 mi. span of the river and surrounding areas, there is little doubt that many will be injured or killed. It is estimated that 40% of all North American migrating waterfowl and shorebirds use this route every year. A study in 2014 (Loss et. al.) found that between 12 and 64 million birds are killed each year at U.S. power lines, with between 8 and 57 million birds killed by collision and between 0.9 and 11.6 million birds killed by electrocution. Indeed, according to the power industry itself, birds are a major problem for utilities, because of the frequency with which power lines cause avian collisions. T & D World, the trade magazine for electric powerdelivery systems, lists eagles, redtailed hawks, greathorned owls, all juvenile raptors, herons, cranes, swans and pelicans as especially vulnerable to electrocution. Thus, the populations of many of the species that use this route are in danger. For example, Audubon states it is currently focusing intensive conservation efforts on twentyseven bird species along the Mississippi Flyway, including a variety of shore birds, warblers, sparrows, bobolinks and the Eastern meadowlark. Building power lines in this highly sensitive area creates an environmental crisis for these species that simply cannot be ignored.	FEIS Sections 3.4 and 3.14 disclose potential impact to wildlife, including migratory birds. The C-HC Project would follow Avian Power Line Interaction Committee (APLIC) guidelines to minimize collision impacts, and electrocutions are not a high risk for this project due to the project design and the fact that the conductor spacing is greater than large avian wingspans.
	McConnell	WLDLF02	NEGATIVE EFFECTS ON BIRD SPECIES FROM COLLISSIONS WITH HIGH POWER TRANSMISSION LINES IN THE DRIFTLESS AREA Along with birds who use the Mississippi Flyway, the construction of 345 kilovolt transmission lines running 100125 miles from the Mississippi River to Middleton puts thousands, if not tens of thousands, of birds at risk. Not only would migrating birds be killed or badly injured by power lines in the flyway, but so would members of species that feed and nest in the area. Based on all available evidence, it is undeniable that vast numbers of birds will be killed if these power lines are constructed.	FEIS Section 3.4 discloses the potential impacts to bird species from the proposed C-HC Project.
	McConnell	WLDLF02 WLDLF03	NEGATIVE EFFECTS DUE TO THE DISRUPTION OF THE ECOLOGY OF THE AREA The area impacted by the CHC plan has been carefully studied by several entities with expertise in wildlife conservation, including the WI DNR, which updated its Wisconsin Wildlife Action Plan in 2015. We know from that work, and the work of wildlife organizations like the Wisconsin Bird Conservation Initiative, that there are many threatened or endangered birds that are dependent on undisturbed land in SW Wisconsin, land that would be degraded or disturbed by the CHC. For example, Bald Eagles have been found to nest in abundance along the route of the proposed CHC, according to the Wisconsin Breeding Birds Atlas. Endangered Loggerhead Shrikes, as well as threatened species like hooded and cerulean warblers, Henslows sparrows and Acadian flycatchers breed in the area that would be profoundly disrupted by the CHC. Many other species of concern who nest along the proposed route would be negatively impacted, including whippoorwills, nighthawks, redheaded woodpeckers, bobolinks and dickcissels. NEGATIVE EFFECTS OF FOREST FRAGMENTATION AND THE EDGE EFFECT Fragmented forests not only favor edge species rather than those who need undisturbed and continuous forest cover, they also increase weather extremes and increase songbird mortality. According to Murcia (1995) and Laurence (2000), edge effects reduce habitat quality and the functional connectivity between them. Many bird species in the area rely on the kind of continuous forest cover that is rarely found except in areas like the unique geological area, The Driftless. The waterways, valleys, and stone croppings that comprise the Driftless area create an environment in which many deep forest speciesincluding birds like blackthroated blue warblers, Canada warblers, goldenwinged warblers, prothonotary warblers, wood thrushes and ovenbirds thrive. All of these birds would be negatively affected, exacerbating the continuing decrease of populations of song birds all around the country. In addition, Ortega & Capen (2002) discussed findings that nest predation and parasitism by cowbirds increased along forest edges, leading to declines in songbirds who require undisturbed and unfragmented forests. Conservation groups, like the WI Bird Conservation Initiative, have worked for years to conserve habitat for endangered, threatened and rare bird species, but this work would be destroyed by the large scale destruction and maintenance of a 100125 mile long corridor. There are other negative implications of the edge effect, not the least of which is the creation of a virtual corridor for the transmission of CWD. According to the WI DNR, CWD is most prevalent in western Dane/Eastern Iowa County along with another area in southeastern WI along the Illinois border. Deer are a classic edge species, and creating a 100125 mile highway for them is a perfect prescription to increase the prevalence of this serious disease.	The proposed C-HC Project would not increase the prevalence of Chronic Wasting Disease (CWD). A study conducted on CWD in south-central Wisconsin showed that prevalence of CWD declined with distance from the center of the affected area and was positively correlated with the amount of deer habitat (Joly et al 2006). White-tailed deer are generalists using a variety of habitats including forests, wetlands, grasslands, and agricultural lands. The proposed C-HC project would modify habitats or change one habitat type to another, but the project would not create more white-tailed deer habitat than what is already on the landscape.
	McConnell	WLDLF04	NEGATIVE EFFECTS ON OTHER MAMMALS Several threatened and rare mammals are at risk from the habitat degradation that is inevitable with the construction of this project. Bats are particularly vulnerable, including the state threatened big and little brown bats. Ground living mammals like Franklins ground squirrels live in the area and have been found to be declining, as are prairie voles and woodland voles. Badgers, that iconic Wisconsin ground dweller, is rarely seen now, but appears to hold out in some areas of the state, including SW Wisconsin. As a species they appear to do poorly around human disruptions, and there is little doubt that this project would decrease their numbers even more.	FEIS Section 3.4 discloses the potential impacts to wildlife from the proposed C-HC Project.

Organization	Commenter Last Name	Comment Code(s)	Comment on FEIS	Agency Response to Comment
	McConnell	HAS01 VEG03 WLDLF01	NEGATIVE EFFECTS OF POWER LINE MAINTENANCE AND HERBICIDE USE The use of herbicides like Roundup to maintain open corridors for power line maintenance should be a great concern to anyone with an interest in environmental and human health. Although there is still a great deal of research to be done, The World Health Organization has classified one of its ingredients, glyphosate, as probably carcinogenic in humans. By itself, glyphosate has been shown to increase risk of Non Hodgkin lymphoma (Schinasi & Leon 2014) and to be toxic to aquatic life by the European Chemicals Agency. Some studies have found no correlation between glyphosate and the occurrence of other human cancers, however, it is critical to note that most studies have used glyphosate not in the form in which it is used (as Roundup, for example) but as an isolated chemical. And yet, the inert ingredients in Roundup have found to be not inert at all, especially when interacting with glyphosate. For example, polyoxyethylene alkylamine, an inert ingredient in Roundup, was found to be 2,000 times more toxic when mixed with glyphosate than lower doses of glyphosate only (see the Intl Journal of Environmental Research and the Institute of Science in Society (2014). These substances act as endocrine disruptors, which means that they can affect reproductive health and create severe developmental deficits in mammals and amphibians. There are no small numbers of amphibians who would be negatively effected by the power lines, especially some species of frog (pickerel frogs and Blanchards cricket frog to name a few).	The FEIS discloses the potential impacts from the use of herbicides to maintain the C-HC Project ROW in Sections 3.5 (Water Resources and Quality), 3.10 (Land Use, Including Agriculture and Recreation), and 3.13 (Public Health and Safety). EIS Section 3.1 includes the environmental commitments applicable to herbicide applications.
	McConnell	HAS01	HUMAN PSYCHOLOGICAL AND PHYSIOLOGICAL HEALTH WOULD BE NEGATIVELY IMPACTED BY CONSTRUCTON AND THE PRESENCE OF THE LINES Nature Deficit Disorder is a term coined by Richard Louv, the author of Last Child in the Woods. It describes the value of time spent in nature on mental and physiological health, while it decries the decreasing time that American children spend in peaceful, natural settings, like the areas which would be negatively impacted by the proposed highpower transmission line. Time spent in natural settings has been found to be essential to healthy cognitive and psychological function. For example, Wells (2000) found that enhanced executive function in children (an important aspect of decision making), was the result of direct experience with nature. Time in undisturbed natural surroundings has also been found to reduce stress (Wells 2003). Burdette and Whitakers study (2005) showed that important social behaviors like selfdiscipline and selfregulation were increased after time spent in natural settings. These are not trivial findings, and have been replicated many times over. They are especially important because rates of anxiety and depression are not only on the rise in our country, but are at epidemic levels according to some. Anxiety is the leading mental health issue among young people (see for example, Bitsko et. al., June 2018), and yet standard treatments are often not effective or available to many. However, we know that time spent in peaceful, undisturbed natural settings reduces anxiety, as well as a acting as a buffer to the kind of stress that many of us experience every day. As a survivor of violent sexual assault and other violent trauma, allow me to add my personal story to the vast amount of data that supports the importance of undisturbed, natural settings, like those found in the areas that would be impacted by construction of massive transmission lines.	FEIS Section 3.10 discloses potential impacts to land use, including recreation, from the proposed C-HC Project.
	McConnell	REC01 REC04	I simply can not image functioning as well as I do now without the opportunity to take long walks on the Military Ridge Bike Path in Mt Horeb, to savor the scenery on our drives through SW Wisconsin, and hiking in parks like Blue Mound State Park and Governor Dodge State Park, as well as time spent bird watching along the Mississippi Flywayall of which would be destroyed by the imposition of huge, ugly and noisy transmission lines.	Comment noted.
	McConnell	SOCIO08	The benefits to consumers are negligible, if not nonexistent.	Comment noted.
	Berg	VEG01	Enclosed are copies of our objections to the Cardinal Hickory Creek Transmission Line. My father, Roger Bradshaw, is most concerned about the acres of trees that will be removed from his property. He does not want this 345 kv transmission line on his land whatsoever. I am concerned about the trees + the residual damage that will happen to the remaining trees.	FEIS Section 3.3 discloses the potential impacts to trees from the proposed C-HC Project.
	Berg	SOIL02	Not to mention the soil erosion that will be increased from removing these trees. The trees were planted to maintain the river bed and prevent soil erosion in an area that is highly erodible.	FEIS Section 3.2 discloses potential impacts to geology and soils from the C-HC Project. Potential adverse impacts from vegetation, soil erosion, and sedimentation is disclosed.
	Berg	LAND01	The power lines will also limit the future possibilities of the land.	FEIS Section 3.10 discloses potential impacts to land use, including agriculture, from the proposed C-HC Project.
	Berg	LAND02	Due to spraying for weeds, we will not be able to do organic farming.	Comment noted. Section 3.10 discloses the potential impacts to organic farms and practices from the proposed C-HC Project.
	Berg	SOCIO06	Overall perceived land value will be much lower.	FEIS Section 3.12 discloses the potential impacts to property values from the proposed C-HC Project.
	Berg	HAS01	I am also concerned about the effects this will have. My dads house is the closest to the line within his area. I know there are studies of no ill health effects; however there are also reports of health effects, i.e cancer, etc.	FEIS Section 3.13 discloses potential impacts to public health and safety from the proposed C-HC Project.
	Berg	DECI13	My family does not want the Cardinal Hickory Creek Transmission Line on our property.	Comment noted.
	Berg	SOCIO06	1. Decrease of land value by 10.5% due to perceived value with a transmission line easement	FEIS Section 3.12 discloses the potential impacts to property values from the proposed C-HC Project.
	Berg	WAT02	2. Environmental concerns crossing the North Fork Maquoketa River. Pollution from the equipment around the river as well as disruption from the concrete pillars necessary for thse poles.	FEIS Section 3.5 discloses potential impacts to water resources and quality, including impacts to surface water. FEIS Section 3.1, Table 3.1-4, includes the following environmental commitment, "An erosion control plan, coordinated with the IDNR [Iowa Department of Natural Resources] and WDNR, will be prepared once a route is ordered/approved, and best management practices (BMPs) would be employed near aquatic features (wetlands, streams, waterbodies) to minimize the potential for erosion and to prevent any sediments from entering the aquatic features."
	Berg	SOIL02 VEG01	3. Environmental concerns having to cut down hundreds of 20 year-old trees that were planted to increase water quality and to prevent soil erosion.	FEIS Section 3.2 discloses potential impacts to geology and soils from the C-HC Project. Potential adverse impacts from vegetation, soil erosion, and sedimentation is disclosed.
	Berg	WLDLF01	4. Endangering the habitat of species that reside in the reparian buffer. Including what may be the protected red-tailed hawk.	FEIS Section 3.4 discloses potential impacts to species and their habitats from the proposed C-HC Project.

Organization	Commenter Last Name	Comment Code(s)	Comment on FEIS	Agency Response to Comment
	Berg	HAS01 LAND03	5. Electric fences that are along the property line for livestock will have stray voltage.6. Negative human health effects from living near the transmission line as well as negative livestock implications.	The topic of stray voltage is discussed in FEIS Section 3.13.
	Berg	VEG01	7. Additional damage to the existing trees in the area due to the disruption of the root system and the additional stray voltage of the transmission line. Not even install this line. It is not necessary given that consumer electric consumption has been flat.	FEIS Section 3.3 discloses the potential impacts to trees from the proposed C-HC Project.
	Berg	SOCIO06	1. Perceived land value will diminish 10.5% for the overall farm, not just the easement area.	FEIS Section 3.12 discloses the potential impacts to property values from the proposed C-HC Project.
	Berg	LAND02	2. Garden area around the easement has a potential to be effected by any overspray in the maintenance of vegetation around the HVTL.	Comment noted. Section 3.10 discloses the potential impacts from herbicides from the proposed C-HC Project.
	Berg	LAND01	3. When power lines and their access roads are placed in undeveloped areas they can disturb forests, wetlands, and other natural areas. This easement goes through these areas.	FEIS Section 3.3 discloses potential impacts to vegetation from the proposed C-HC Project.
	Berg	AIR03	4. Many high-voltage circuit breakers, switches, and other pieces of equipment used in the transmission and distribution system are insulated with sulfur hexafluoride, which is a potent greenhouse gas. This gas can leak into the atmosphere from aging equipment or during maintenance and servicing. (https://www.epa.gov/energy/electricity-delivery-and-its-environmental-impacts#impacts)	FEIS Section 3.6 addresses the potential leakage of sulfur hexafluoride from substation equipment.
	Berg	AIR04	5. Future value loss of hundreds of hardwood trees that will have to be removed.	FEIS Section 3.6 addresses the estimated change in landcover types and potential change in carbon sequestration rates based on conversion of parts of the C-HC Project area from forested land cover to grassland.
	Berg	SOIL02	6. Future loss of existing trees, not in the easement, that will be affected due to ground compaction and root damage	FEIS Section 3.3 discloses potential impacts to vegetation, including forested areas, from the proposed C-HC Project.
	Berg	WLDLF01	7. Loss of natural habitat in the area due to the HVTL.	FEIS Section 3.4 discloses potential impacts to species habitats from the proposed C-HC Project.
	Berg	HAS01	8. Stray voltage.	The topic of stray voltage is discussed in FEIS Section 3.13.
	Berg	SOCIO01	9. Increased rate in utility bills	The PSCW has reviewed and approved the C-HC Project in terms of all requirements associated with Wisconsin Statute 196.491(3) as per their jurisdictional authority and responsibility. This includes consideration of costs and benefits for Wisconsin ratepayers (see Section 1.2.2.1 of PSCW [2019]).
	Berg	NEP02	Not to have the transmission line at all since it is unnecessary.	Comment noted.
	Bradshaw	WAT02	1. The route runs through the creek which is part of the North Fork Maquoketa River.	Comment noted.
	Bradshaw	SOIL02 VEG01 WAT03	2. Hundreds of hardwood trees will have to be removed . 3. The trees are in a Riparian Buffer CP22. 4. The trees were planted to maintain the river bed, provide habitat, and increase water quality . . 5. Removal of that amount of trees will cause soil erosion.	FEIS Section 3.2 discloses potential impacts to geology and soils from the C-HC Project. Potential adverse impacts from vegetation, soil erosion, and sedimentation is disclosed.
	Bradshaw	SOCIO07	6. The compensation is too low. 7. There is no compensation for the future value of the hardwood trees. 8. The compensation does not include any future damage due to compaction during the construction stage after one year.	Comment noted.
	Bradshaw	ALT02	9. The easement is too large (100 ft.) for the intended purpose. 10. The easement should be restricted to the electric line only.	The Utilities would also be required to maintain their ROW and clearances in accordance with the adoption of the National Electrical Safety Code (NESC) by Iowa and Wisconsin. North American Reliability Corporation (NERC) generally requires the pruning or removal of interfering trees to minimize the risk of vegetation-related outages. Otherwise, there would be an increased potential for fires or electrical or mechanical damages to the electrical equipment.
	Bradshaw	ALT07	Consider a route change to avoid the Riparian Buffer area, loss of habitat, and soil erosion.	Comment noted.
	Moe	REC02	No high voltage power lines in our wildlife refuge. We need to save our wildlife areas for our grandchildren and great grandchildren.	Comment noted.
University of Wisconsin-Departments of Biology & Entomology	Peckarsky	EFF01 WAT01	My comments below indicate whether the FEIS resolved problems I identified in the DEIS with regard to three primary potential impacts of the proposed C-HCT project on rivers, streams and floodplains (aquatic resources excluding wetlands and ponds/lakes) (as stated on p. 228 of the FEIS): 1) Potential adverse impacts on stream water quality caused by construction activities or discharges during construction or maintenance of structures 2) Potential changes to stream water quantity caused by diversion of water from streams, primarily during construction 3) Impacts to floodplains due to disturbance and fill associated with project footprints, during both construction and maintenance of structures My main concern with the DEIS was that despite the document clearly articulating potential impacts of construction and maintenance of the transmission line on aquatic resources in its path, information on mitigation of those impacts and restoration of damaged habitats was inadequate. I provided detailed suggestions for areas that needed more information. However, the only suggestions incorporated into the FEIS were clarification of Wisconsins Outstanding and Exceptional Resource Waters and corrections of the descriptions of trout streams that would be affected in the analysis area. None of my other comments on the DEIS were incorporated into the FEIS.	Table 3.1-4 in FEIS Section 3.1 lists all environmental commitments (sometimes referred to as mitigation measures) for the C-HC Project, including those identified for water resources and quality. FEIS Section 3.5 discloses potential impacts to water resources and quality, and this section also accounts for the environmental commitments specific to water resources and quality.

Organization	Commenter Last Name	Comment Code(s)	Comment on FEIS	Agency Response to Comment
University of Wisconsin-Departments of Biology & Entomology	Peckarsky	EFF04 WAT01	Therefore, my comments below indicate that the FEIS similarly provides detail on the expected impacts of the proposed C-HCT project (p. 226); but 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 (highlighted in bold, italic font). I have provided citations of scientific literature to corroborate problems remaining in the FEIS outlined in these comments. My comments are relevant to all alternative proposed paths, the impacts of which differ only slightly depending on numbers of stream crossings and floodplains disturbed.	Table 3.1-4 in FEIS Section 3.1 lists all environmental commitments (sometimes referred to as mitigation measures) for the C-HC Project, including those identified for water resources and quality. FEIS Section 3.5 discloses potential impacts to water resources and quality, and this section also accounts for the environmental commitments specific to water resources and quality.
University of Wisconsin-Departments of Biology & Entomology	Peckarsky	SOIL02 WAT03	1) Water Quality Issues The most damaging impact of the project on stream water quality will result from the clearing of vegetation and disturbance of soils in the riparian buffer zones in the ROW during both construction and maintenance of the transmission towers that are adjacent to stream crossings. Clearing vegetation and grading the riparian zone disturbs and exposes soils, subjecting them to accelerated erosion. Silt loam soils, which are the most erodible of all soils, predominate in the analysis area. All alternatives would destabilize particles and produce high rates of runoff within the 300 ft. ROW corridor. Less stable, more erodible soils result in reduced storm water infiltration and increased runoff volume, runoff velocity, sediment-carrying load and cutting power of water flowing downhill. Some effects would be temporary (road access and construction impacts), and others permanent (removal of existing soils for footprints of foundations, compaction of soils by heavy equipment, removal of vegetation shading riparian buffer zones.) Sedimentation is the most common form of construction impact whereby storm water is moved into nearby surface waters as a consequence of ground disturbance. The negative effects of sedimentation resulting from disturbing riparian zones of streams have been well documented by stream ecologists (e.g., Gregory et al. Bioscience 1991)	FEIS Section 3.2 discloses potential impacts to geology and soils from the C-HC Project. FEIS Section 3.5 discloses potential impacts to water quality from the C-HC Project. Potential adverse impacts from soil erosion and sedimentation are disclosed in both of these sections of the FEIS.
University of Wisconsin-Departments of Biology & Entomology	Peckarsky	REC02 SOIL02 WLDLF04	Also, there are a number of endangered and threatened species (mussels, fish, insects) in the analysis area, which are especially vulnerable to sedimentation, especially in the Mississippi River National Wildlife and Fish Refuge.	FEIS Section 3.4 discloses potential impacts to threatened and endangered wildlife.
University of Wisconsin-Departments of Biology & Entomology	Peckarsky	EFF04 SOIL02 WAT03	The FEIS does acknowledge that construction and maintenance activities will increase sediment loads and reduce water quality (p. 228). The Utilities propose to work with the IDNR and WDNR to develop an erosion control plan prior to construction (p. 135) that implements Best Management Practices (BMPs) near streams to minimize erosion and prevent sedimentation (p. 227); but as in the DEIS, no details are provided. Plans for erosion control should be spelled out in detail in the FEIS with evidence of their effectiveness. There are alternative designs for erosion control. Which would be used and why? On p. 228 of the FEIS, the Wisconsin BMPs are referred to as standard industry practices. However, the Wisconsin BMPs are often inadequate for protecting stream water quality, because of their frequent inclusion of caveats such as BMPs should be implemented when practical, when implemented properly or to the extent possible. For example, language in the FEIS states that heavy equipment will be kept out of flowing stream channels and active drainages to the extent possible (p.203). I interpret that statement to mean that when not possible, heavy equipment WILL be entering stream channels and active drainages, which will damage the organisms present in the stream and can cause irreparable damage to stream habitats. The FEIS needs to address that issue, estimating how many stream crossings in the project area have conditions where the BMPs are not possible or practical to implement. The Utilities also propose to regularly inspect and maintain erosion controls until exposed soil has been adequately stabilized (p. 135). Is the plan to inspect every site after every storm water event? Otherwise, erosion controls may be breached during storm events causing sedimentation of erodible soils into vulnerable streams, especially considering the climate-change-driven increase in hard rains and flooding events.	The FEIS is unable to provide the level of detail regarding the location and design of erosion control measures requested in this comment. The C-HC Project has not been fully approved and permitted; therefore, the final design has not been completed. Typically, erosion control plans are developed once the specific location of all infrastructure components (transmission line structures, staging areas, etc.) can be identified. Once the final design of the C-HC Project is complete, if approved, a tailored erosion control can be developed, submitted, and permitted by the appropriate agencies, such as the PSCW, WDNR, and IDNR. The permitting agencies will help inform the appropriate BMPs and inspection schedule.
University of Wisconsin-Departments of Biology & Entomology	Peckarsky	EFF04 VEG04 WLDLF01	The FEIS acknowledges that tall vegetation cannot be allowed to reestablish within the ROW for safety purposes; therefore impacts to trout streams are expected to be moderate and long term (p. 228, p. 236). However, on p. 236 they state that impacts of tree removal in the ROW will be temporary, until permanent vegetative cover is reestablished. I suspect they are only referring to impacts on sedimentation. The FEIS needs to clarify what kind of vegetation will be planted in de-vegetated riparian zones. If the re-vegetation includes low-lying plants that do not provide shade, impacts on stream water temperatures will not be mitigated even if such re-vegetation stabilizes soils and minimizes erosion. The DEIS needs to include a specific plan for reestablishing permanent vegetative cover in the ROW that will maintain habitat for trout and insects where the transmission lines cross riparian corridors of sensitive streams.	The FEIS also states, "If preconstruction vegetation cover along riparian areas is not allowed to become reestablished due to safety precautions associated with the transmission line, impacts to surface water would be long term." FEIS Section 2.4.5 explains, "Areas where crops are not present, such as roadsides, pastures, old fields, upland woods, and wetlands, would be seeded with native seed mixes or other appropriate, non-invasive or non-nuisance seed mixes, and then weed-free mulch would be laid down. In wetlands, excavated surface soils or the organic layer containing the plant parts and rootstocks of native wetland vegetation could be spread around the disturbed areas to enhance the reestablishment of the original wetland vegetation, if deemed appropriate by the necessary Clean Water Act permits."
University of Wisconsin-Departments of Biology & Entomology	Peckarsky	WAT06	The FEIS also states that no transmission line or temporary structures will be located within the ordinary high water mark (OHWM) of streams (p. 227). However, such bankfull conditions are often exceeded during floods, which are becoming more extreme and more frequent as a consequence of climate change (locally: e.g. the August 2018 flood in the Black Earth Creek watershed, and globally: IPCC Report 2018). Therefore, keeping structures out of the stream channel will not be enough to prevent damage, because structures in the floodplain (also see section 3 below) will be increasingly vulnerable to erosion given the effects of more frequent flooding. The FEIS needs to address this issue.	FEIS Section 3.5 discloses potential impacts to floodplains.
University of Wisconsin-Departments of Biology & Entomology	Peckarsky	ALT02 TRANS03 WAT04	The FEIS also states that the construction of Temporary Clear Span Bridges (TCSB) supported by beams placed above the OHWM will prevent driving heavy equipment through streams (p. 135, 227). However, in streams too wide to clear the span, temporary bridges with in-stream support would be designed and constructed. How many sites would require in-stream supports? According to the inventory of stream crossings >1000 ft. that number may be as many as 14 sites, including the Mississippi River. The FEIS needs to address this issue specifically. Wisconsin (but not Iowa) requires a permit to build TCSBs over navigable waters.	The FEIS does not state the supports would be constructed within the Mississippi River. Any construction activities across the Mississippi River would be completed by boat and from each bank of the river. FEIS Section 3.5 discloses that if structures are located within the 100-year floodplain, the Utilities would need to coordinate with the applicable floodplain management agency to ensure consistency with floodplain regulations and ordinances. The FEIS is unable to provide the level of detail regarding the location and design stream crossings requested in this comment. The C-HC Project has not been fully approved and permitted; therefore, the final design has not been completed. Stream crossings will be identified and designed once an alternative is selected.
University of Wisconsin-Departments of Biology & Entomology	Peckarsky	ALT02 TRANS03	more information is needed to elaborate on proposed attempts to minimize stream crossings by using existing structures and working with private landowners. Existing structures may need to be massive towers in their yards cooperate with the Utilities? The FEIS inadequately addresses those issues.	Comment noted.

Organization	Commenter Last Name	Comment Code(s)	Comment on FEIS	Agency Response to Comment
University of Wisconsin-Departments of Biology & Entomology	Peckarsky	EFF04 HAS01	the FEIS needs to specifically outline plans for avoiding and/or mitigating spills of hazardous materials or other discharges (e.g., petroleum products, herbicides) during construction and maintenance of the transmission towers, rather than simply stating they would follow the BMPs and employ a Certified Pesticide Applicator (p. 135). Specifically, how will following Wisconsin BMPs minimize accidental release of contaminants, runoff of herbicides, erosion and movement of sediment in storm water due to ground disturbance?	The Utilities will develop a Spill Prevention, Control and Countermeasure Plan for the construction of the Hill Valley substation, if the amount of oil stored at the Hill Valley Substation meets the requirements of the Oil Pollution Prevention regulation 40 CFR 112. The Hill Valley Substation will be designed to include secondary containment for releases of hazardous materials during operation. Furthermore, the Utilities require all construction contractors to submit a spill prevention and response plan that identifies mitigation of spills within the footprint of the C-HC Project construction area.
University of Wisconsin-Departments of Biology & Entomology	Peckarsky	EFF04 WAT03	Water Quantity Issues The FEIS stated that extraction of water to fill excavation sites for construction of towers and for other construction purposes would be scheduled to attempt to avoid spawning periods (p. 136). Plans are to coordinate with IDNR and WDNR to discharge extracted water to a non-sensitive upland site to facilitate re-infiltration to the aquifer. Dewatering of streams is well known to have negative ecological consequences on groundwater levels and stream organisms (Carlisle et al. 2010). Importantly, fish are not the only stream organisms sensitive to alterations in the natural flow regime (Poff et al. 1997, Lytle and Poff 2004). It is well established that water extraction schemes, for whatever purposes, need to take into account the negative impacts on organisms that depend on natural seasonal flow fluctuations. Such extractions can also affect stream water temperatures, depending on the volume of water extracted. Plans for extractions need to be developed in much more detail in the FEIS to demonstrate how the Utilities will mitigate or minimize damage to the stream organisms in sensitive streams.	FEIS Section 3.4 discloses potential impacts to fish and other aquatic species from water withdrawals during construction. The FEIS is unable to provide the level of detail regarding the location and extent of water withdrawals requested in this comment. The C-HC Project has not been fully approved and permitted; therefore, the final design has not been completed. Typically, the need for water withdrawals during construction are identified once the specific location of transmission line structures are known.
University of Wisconsin-Departments of Biology & Entomology	Peckarsky	EFF04 WAT06	Floodplain Issues All alternatives would entail crossing tens of thousands of feet of floodplain (21,000 43000 ft. depending on the alternative). The FEIS clearly articulates the many benefits of floodplains (p. 221) and the Utilities understand the need for complying with regulations for development in floodplains. Fig. 3.5.2 (p. 223) illustrates all the 100-year floodplains in the analysis area including a 1.5-mile wide corridor around the Mississippi River. The FEIS proposes to avoid constructing structures in the floodplain and to place structures several hundred feet outside the channel banks (p. 227), both of which conditions will not always be possible. Floodplains greater than 1000 feet wide cannot be spanned and therefore, it would not be possible to comply with the criterion of staying out of the floodplain. For wider channels, like the Mississippi River, supports would need to be constructed within the channel, which would have permanent long-term effects. Structures need to be elevated above the base flood elevation where possible. If not possible, what is the plan for constructing those towers? These issues could create difficulties for permitting needed to complete the project. Construction and maintenance activities in regulated floodplains require applications for Floodplain Development Permits from Iowa and Wisconsin. Furthermore, a Section 408 review is needed to construct towers within base flood areas (100-yr floods). In addition, 100-year floods are occurring at much greater frequency now associated with climate change (IPCC Report 2018), which should be considered in the analysis of what areas of the floodplain may be vulnerable to destruction by floods, and destabilized by the construction and maintenance of transmission towers.	The FEIS does not state the supports would be constructed within the Mississippi River. Any construction activities across the Mississippi River would be completed by boat and from each bank of the river. FEIS Section 3.5 discloses that if structures are located within the 100-year floodplain, the Utilities would need to coordinate with the applicable floodplain management agency to ensure consistency with floodplain regulations and ordinances.
University of Wisconsin-Departments of Biology & Entomology	Peckarsky	PUB03 WAT04	What is the appropriate timing for obtaining permits (before or after completion of the FEIS)? At the very least the permitting process should be more clearly specified in the FEIS, and the consequences of failure to obtain necessary permits need to be considered. A related issue is that the Mississippi River is designated as a Meandered Sovereign River in the analysis area. Proposed construction in the river and its floodplain requires a Sovereign Lands Construction Permit. Should that permit be acquired before initiating a project that could have deleterious effects on this protected resource?	The Utilities will obtain permits for the C-HC Project both before and after the completion of the Federal NEPA process, based on the requirements of the individual permit. For example, approval from the PSCW has already been obtained and permit applications have been filed with federal agencies, such as the USACE and USFWS. The Utilities will work with the IDNR to obtain the Sovereign Lands Construction Permit if/when a Mississippi River crossing location is approved in the Federal ROD.
University of Wisconsin-Departments of Biology & Entomology	Peckarsky	EFF04 WAT04 WAT06	The FEIS includes a brief mention of plans to restore bottomland hardwood forest on the floodplain of the Mississippi River; however none of the restoration plans are specified, with no indication of their efficacy in mitigating construction impacts on sensitive species and habitats in this valuable, protected resource.	The Utilities propose to mitigate adverse impacts to forest resources in the Refuge through restoration and enhancement of forest resources both within and off Refuge lands. A restoration plan would be developed in consultation with the USFWS and USACE. The restoration plan would supplement existing USFWS efforts to restore bottomland hardwood forest within the Refuge, specifically on the floodplain of the Turkey River. Mitigation may also include the reestablishment and/or expansion of mature woodlands near the Nelson Dewey Substation and/or other non-Refuge locations adjacent to Refuge lands. These restoration efforts would mitigate adverse impacts on public lands.
University of Wisconsin-Departments of Biology & Entomology	Peckarsky	EFF04 WAT01	The FEIS recognizes the following cumulative, unavoidable, irreversible or irretrievable impacts of the proposed C-HCT project (p. 52425): 1) construction and maintenance of any chosen alternative would result in long-term adverse impacts to habitat; 2) the long-term effects of maintenance of the transmission line would permanently affect floodplains sustained through the life of the project; and 3) construction of the project would affect water resources through land clearing, filling and occupation by project facilities. Nonetheless, they assert that project would not affect long-term floodplain or groundwater productivity since those areas would either be restored to preproject conditions as a mitigation measure or through natural recovery. However, the FEIS provides no information on how mitigation, restoration or recovery would actually happen. Those plans need to be included in this document.	FEIS Section 3.5 discloses the potential impacts to floodplains and groundwater. However, for these resources, neither of these discussions rely on mitigation measures to lead to the conclusion of short-term impacts.

Organization	Commenter Last Name	Comment Code(s)	Comment on FEIS	Agency Response to Comment
University of Wisconsin-Departments of Biology & Entomology	Peckarsky	EFF04 PUB03 WAT01	The FEIS recognizes many potential impacts, but provides inadequate information with respect to the avoidance and mitigation of damage to sensitive rivers, streams and floodplains caused by construction and maintenance of the proposed Cardinal-Hickory Creek Transmission project. Specifically, this document needs to: 1) include specific plans to avoid or mitigate negative effects of construction and maintenance of the towers on stream water quality, with respect to erosion control, sedimentation, stream shading, water temperatures, flood-water retention, effects of temporary and permanent structures placed in stream channels, and accidental spills of hazardous materials; 2) demonstrate that extraction of water from sensitive streams will not damage aquatic life; 3) elaborate on how mitigation and restoration will be accomplished to prevent irreparable damage to valuable floodplains, especially the Mississippi River; and 4) provide a convincing plan for obtaining necessary permits that demonstrates a high probability that construction and maintenance activities associated with the C-HC Transmission line in floodplains would be approved by regulatory authorities.	NEPA does not require Federal agencies to mitigate adverse environmental effects (Council on Environmental Quality 2011). However, RUS and the Cooperating Agencies have worked with the Utilities to develop environmental commitments (FEIS Table 3.1-4), BMPs (FEIS Appendix D), and a mitigation plan (FEIS Appendix I) to minimize, avoid, and mitigate adverse impacts identified in the FEIS. The FEIS is unable to provide the level of detail regarding the location and design of erosion control measures, water withdrawals, and other details requested in this comment. The C-HC Project has not been fully approved and permitted; therefore, the final design has not been completed. Erosion control plans and water withdrawal sites are developed/identified once the specific location of all infrastructure components (transmission line structures, staging areas, etc.) can be identified. Once the final design of the C-HC Project is complete, if approved, a tailored erosion control can be developed, submitted, and permitted by the appropriate agencies. FEIS Appendix I provides a description of the mitigation measures pertaining to C-HC Project ROW crossing the Refuge and impacts to jurisdictional waters. FEIS Chapter 1 gives the list of Federal and state permits currently underway for the C-HC Project.
	Scott	ALT01	Hello Dennis, I have been reading the RUS-Final Environmental Impact Statement (October 19), and was surprised that Alternative 6 was selected as the preferred transmission line route	Comment noted.
	Scott	SOCIO04 VIS01	I believe your analysis regarding Visual Quality and Aesthetics and Socioeconomics and Environmental Justice is extremely flawed and completely understates the devastating economic impact the CHC line will cause Mount Horeb and nearby communities. I intend to submit a statement supporting this contention, but first need better resolution images of the Blue Mounds Visual simulations (Figs. 3.11-36 and 3.11-37). Would you please email these to me asap?	The requested visual simulations were emailed to cmefly@mhtc.net on November 4, 2019.
	Scott	NEP02	Also, it is my understanding that your staff at RUS validates (independently?) the ProMod analysis conducted by ATC and the Wisconsin PSC. In these analyses, what was the assumed power demand input for FoxConn? Furthermore, did your analysis support the findings of ATC and PSC? Thanks,	The C-HC Project has been independently modeled and verified by multiple entities, including MISO, which used a planning process approved by the Federal Energy Regulatory Commission (FERC). The PSCW has independently verified the modeling for the C-HC Project, and the PSCW approved the project. the Iowa Utilities Board is currently evaluating the project. RUS and the other Federal agencies have considered all information, including public comments, when analyzing the C-HC Project to comply with NEPA. This is explained in the FEIS.
	Luecke	DECI13 WLDLF01	It is outrageous that our Federal agencies will allow a private company to take public and private lands to build unnecessary monstrous towers which will desecrate the beauty of our land and desecrate the wildlife areas and migratory flyways! Will Big Money always buy the Federal agencies against the public interest?	Comment noted.
	Myers	DECI13	DON'T give ATC, ITC, and Dairyland the permit to cross the Mississippi River with these massive transmission lines. DON'T give Dairyland a loan.	Comment noted.
	Myers	ALT04	There are better LOCAL Non-Transmission Alternatives - Local renewable energy. Also, the PSC staff came up with a good alternative which was to repair and improve existing lines. This would be much less costly. But, the commissioners ignored this proposal even though over a thousand people sent in comments and went to hearings opposing the C-HC transmission line.	FEIS Section 2.2.2 provides the rationale for not carrying forward non-transmission, lower-voltage, and underground alternatives for detailed analysis.
	Myers	DECI13 SOCIO07	What's really important? People's lives, health, and communities, the environment-the beauty of nature, the rivers, the land, wildlife and home and family. Think about what is really important in life and say NO to massive transmission lines now!! Don't give these greedy corporations permission to damage the lives and the environment of the people in the driftless area of southwestern Wisconsin. Please listen to the voice of the people and help us fight this project.	Comment noted.
	Luecke	DECI13 VIS01 WLDLF02	It is outrageous that our Federal agencies will allow a private company to take public and private lands to build unnecessary monstrous towers which will desecrate the beauty of our land and desecrate the wildlife areas and migratory flyways! Will Big Money always buy the Federal agencies against the public interest?	Comment noted.
	Luecke	DECI13 VIS01 WLDLF02	It is outrageous that our Federal agencies will allow a private company to take public and private lands to build unnecessary monstrous towers which will desecrate the beauty of our land and desecrate the wildlife sanctuaries and the migratory pathways and flyways! Will Big Money always be able to buy the Federal agencies against the public interest?	Comment noted.
	Bartels	REC02	I can not believe the U.S. Fish and Wildlife service would say it is ok to go through a wildlife refuge.	Comment noted.
	Bartels	VIS01 WLDLF02	If they succeed coming from Iowa and through the bluffs of Cassville, wi this will effect the bald eagles and the scenery and other wildlife and in the spring the Blue bell flowers florish along those bluffs, they would most likely be destroyed.	Potential impacts to visual resources for all alternatives are disclosed in FEIS Section 3.11. Potential impacts to wildlife are disclosed in FEIS Section 3.4.
	Bartels	DECI13	I am against installing these power lines. There is no amount of money that can bring back our health, scenery, tourism etc. once these power lines come through, this is a sad event.	Comment noted.
	Bartels	NEP02	please consider the fact that we have enough power and we would not gain anything from this	Comment noted.
	Bartels	REF01	The power lines near Lacrosse have defaced a lot of gorgeous land and so unnecessary	Comment noted.

Organization	Commenter Last Name	Comment Code(s)	Comment on FEIS	Agency Response to Comment
	Enloe	DECI13 PUB01	I have previously submitted comments both online and in written form at public hearings but do not see those comments in any of the published documents. Therefore, I am once again submitting comments and expect them to become part of the public record of the dissent to the proposed CHC-ATC high capacity power line between Madison, Wisconsin and Iowa.	RUS and the Cooperating Agencies took all public comments received during the DEIS public review period and published the comments and responses in Appendix F. The comment received from the Enloe household is recorded under Robert and can be found on page 124 of Appendix F.
	Enloe	NEP02	The Environmental Impact Statement is inadequate in addressing: 1. The need for such a line in light of decreasing energy demand in Wisconsin.	FEIS Chapter 1 describes the need for the C-HC Project, as well as the decisions facing the three Federal agencies that have received loan or permit applications for the C-HC Project.
	Enloe	ALT01	2. The need to urgently create new models for public control of common goods. Across the country we are seeing the development of models that provide more local control and smaller power grids that would be less susceptible to disruption like the power grids in California that are being shutdown to prevent forest fires. Other types of disruption are also possible, especially in an age where cyber security is not up to being able to block hacks that could threaten our society.	Comment noted.
	Enloe	ALT02	New technology. There is new technology on the horizon that will likely make these types of lines obsolete. The urgency to build this line now seems short sighted.	Comment noted.
	Enloe	SOCIO07	Negative environmental impact. If these power lines are built, there will clearly be a negative impact on the environment in the unique and delicate ecosystem of the Driftless Area.	Comment noted.
	Enloe	DECI13	The ability of for-profit companies to take private property under imminent domain is wrong.	Comment noted.
	Enloe	PUB01	I have previously submitted comments both online and in written form at public hearings but do not see those comments in any of the published documents. Therefore, I am once again submitting comments and expect them to become part of the public record of the dissent to the proposed CHC-ATC high capacity power line between Madison, Wisconsin and Iowa.	RUS and the Cooperating Agencies took all public comments received during the DEIS public review period and published the comments and responses in Appendix F. The comment received from the Enloe household is recorded under Robert and can be found on page 124 of Appendix F.
	Enloe	NEP02	The Environmental Impact Statement is inadequate in addressing: 1. The need for such a line in light of decreasing energy demand in Wisconsin.	FEIS Chapter 1 describes the need for the C-HC Project, as well as the decisions facing the three Federal agencies that have received loan or permit applications for the C-HC Project.
	Enloe	SOCIO03	2. The need to urgently create new models for public control of common goods. Across the country are seeing the development of models that provide more local control and smaller power grids that would be less susceptible to disruption like the power grids in California that are being shutdown to prevent forest fires. Other types of disruption are also possible, especially in an age where cyber security is not up to being able to block hacks that could threaten our society	FEIS Section 3.13 addresses risks from severe weather, wildfire, and security breaches.
	Enloe	NEP02	3. New technology. There is new technology on the horizon that will likely make these types of lines obsolete. The urgency to build this line now seems short sighted.	FEIS Section 2.2.2 explains the rationale for dismissing non-transmission alternatives from detailed analysis.
	Enloe	LAND08	4. Negative environmental impact. If these power lines are built, there will clearly be a negative impact on the environment in the unique and delicate ecosystem of the Driftless Area.	Comment noted. Potential adverse impacts from the proposed C-HC Project are disclosed in FEIS Chapters 3 and 4.
	Enloe	SOCIO01	5. The ability of for-profit companies to take private property under imminent domain is wrong.	Comment noted.
	Reisinger	REC02	I am writing to protest the construction of the power line (Cardinal Hickory Creek high voltage transmission line) through the Upper Mississippi River National Wildlife and Fish Refuge. This wetland area has international importance and is one of the most important corridors for fish and wildlife in the U.S. The public and residents have come together to adamantly oppose this unneeded high-voltage power line, which would irreversibly damage the landscape, ecology, and recreation economy of the area. It is critical that alternatives are closely re- examined and relocated so that the transmission line doesnt disturb the 39 acres of irreplaceable wetland refuge.	FEIS Section 3.14 discloses potential impacts to resources within the Refuge. FEIS Appendix J contains the draft compatibility determination written by USFWS regarding the realignment of the utility ROW within the Refuge.
	Gauger	DECI13	I am opposed to Cardinal Hickory Creek 345-kv transmission line project	Comment noted.
	Gauger	VEG03	Clearcutting/spraying acres of land beneath the wires would lead to disruption in our established ecosystems. Between the poisoning and resulting invasive vegetation, the plants, animals and insects would not have a chance. Also improper "pruning" of oaks could contribute to the spread of oak wilt disease.	FEIS Section 3 discloses the potential impacts to resources from the potential use of herbicides for the proposed C-HC Project. Additionally, Section 3.3 discloses the potential spread of oak wilt from the proposed C-HC Project.
	Gauger	VEG01	It also has been revealed that devastating fires in California have been caused by high voltage (bare wire) power lines.	Comment noted.
	Gauger	SOIL02 WAT01	Just imagine 50 foot holes dug into the earth to receive tons of concrete for each tower base. It would be such a disruption of soil/water patterns, not to mention a huge waste of resources and energy!	Comment noted.
	Gauger	HAS01	How about farmers plowing in unworkable patterns to avoid the towers, while worrying about stray voltage killing their animals? Do you think it is okay to run these lines across school grounds in Mount Horeb and Barneveld?	The topic of stray voltage is discussed in FEIS Section 3.13.
	Gauger	DECI13 NEP02	If we truly needed t his line, it might be worth the trouble, BUT the experts in the field have determined that it is NOT needed. The Public Service Commission's own staff of professionals came up with a viable plan to reconfigure existing power lines to carry the load. The three members of the PSC whose charge it is to make the decision tossed their idea away, quickly voting to approve the expansive project. Why are we making a beeline toward this project? Some say it is to ensure the passage of clean energy from wind and solar. Anyone who has a solar system on their home knows about the value and effectiveness of small energy grids. If an evil force wanted to cripple our country, wiping out a power line would go a long way, literally. The military traditionally has depended on small energy grids that sustain less damage if attacked and can be repaired more quickly. I believe this project is more about rewarding investors than it is about serving us consumers. Energy use is proven to be flat. Most of us are using energy-efficient appliances, lighting, etc. Now we are being told to pay for this unwanted outdated technology. using energy-efficient appliances, lighting, etc. Now we are being told to pay for this unwanted outdated technology. We do not need this invasion of huge towers across our beautiful Driftless landscape, which is revered internationally and treasured locally. Is there still time to alter the path forward? I can only hope	FEIS Chapter 1 describes the need for the C-HC Project, as well as the decisions facing the three Federal agencies that have received loan or permit applications for the C-HC Project.

Organization	Commenter Last Name	Comment Code(s)	Comment on FEIS	Agency Response to Comment
UW - Madison Department of Forest and Wildlife Ecology	Craven	ALT01 LAND01	I would like to offer some thoughts for your consideration on the proposed routes for the Cardinal-Hickory Creek transmission lines in Southwest Wisconsin. I was alerted to the proposals by a friend who lives near a proposed route and by my daughter, a long-time resident and teacher in Mount Horeb, WI near most of the route alternatives. I have no immediate stake in the new transmission capacity other than the shared public interest in electrical energy availability and cost. I do however, feel I can offer some considerations on the route proposals. I am a retired Extension Wildlife Specialist for the State of WI and a retired faculty member and Department Chair at the UW-Madison. As such, I was involved in habitat and wildlife management with thousands of landowners across the state and in the area of the proposed transmission lines. I will focus my comments on the 2 alternatives (east and west) to get the lines from Middleton (specifically from Highway J) to the Highway 18-151 corridor. I have driven and inspected as much of the 2 alternatives as was readily accessible. My impression is that the east and west routes are of similar lengths. However, that seems to be where the similarity ends. Where the west route follows some road corridors and traverses an agricultural landscape with significant housing development (eg near the east side of Mount Horeb), the east route traverses more undisturbed habitat (wooded and restored) and more challenging topography. Thus, the potential for ecological disturbance appears much greater with the eastern route. The existing corridor for the western route should minimize ecological impact and reduce costs. If a selling point for the overall southern route from Middleton to Hickory Creek is the presence of an existing transmission corridor, then that logic should also apply to the alternative short segments I previously mentioned. The eastern alternative is also just a few miles west of the well-known (in conservation circles), Riley Game Cooperative study site used by Also Leopold in the 1930s and 40s. That conservation tradition has been carried on by landowners along the eastern corridor with stream restoration work and prairie restoration, among other habitat conservation practices. A case in point is the Early Autumn Farms landowner cooperative totaling about 400 acres. Their efforts are exactly what the Wisconsin Department of Natural Resources envisioned when the agency designed much of that countryside as the Southwestern Grasslands and Streams Restoration area to promote conservation.	Comment noted. It appears this comment refers to FEIS Alternatives 4, 5, and 6. The FEIS identifies Alternative 6 as the Agency Preferred Alternative.
UW - Madison Department of Forest and Wildlife Ecology	Craven	LAND07 WLDLF01	The prairie restoration efforts are particularly noteworthy when it comes to grassland bird conservation (see Ribic, Guzy, and Sample. 2009 Grassland Bird Use of Remnant Prairie and Conservation Reserve Program Fields in an Agricultural Landscape in Wisconsin, American Midland Naturalist. 161: 110-122). That paper is part of a series of research papers dealing with grassland birds on remnant prairies and pastures in the Military Ridge area. The authors note the critical importance of restored prairies (given the very few remnants of natural prairies remaining) to birds like the grasshopper sparrow. Other birds of special conservation concern like the red-headed woodpecker also frequent the area where there is suitable habitat. A transmission line would be a game changer for some of these habitats and species. For a detailed guide to the ecological importance of that area, refer to the Southwestern Upland Section in Sample and Mossman. 1997. Managing Habitat for Grassland Birds: A Guide for Wisconsin. Wisconsin DNR. Madison 154pp. I believe these ecological issues have been well covered in other documents submitted to regulators by the Driftless Area Land Conservancy.	FEIS Section 3.10 discloses potential impacts to recreation and natural areas (including conservation areas), and Section 3.4 discloses the potential impacts to bird species from the proposed C-HC Project.
UW - Madison Department of Forest and Wildlife Ecology	Craven	ALT01	Thus, I do not need to take any more of your time. In summary, as a taxpayer, consumer of electric power, and conservationist, I cannot understand the need for consideration of ecologically risky alternatives when existing corridors are available to expand transmission, both in the case of the small east or west route decision and the major norther route alternative than rural Dane and Iowa counties. I fully understand that if wind power generation is to remain a viable landscape feature and source of electricity, then there has to be transmission capacity to support it. However, the purpose of evaluating alternatives is to select the one that is cost effective and minimizes damage including ecological damage. On a small scale, the western alternative from Highway J to Mount Horeb certainly appears to me to be the best choice. If you have any questions, please feel free to contact me.	Comment noted.
	Bach	DECI10 DECI14	I write in support of the Commissions decision in the CHC transmission line issue. The Wisconsin Public ServiceCommission has weighed all testimony and rendered a timely and tempered decision.	Comment noted.
	Neton	LAND01	We have been living in Wisconsin for only 5 years now, but realize just how special this state and this land is. The Driftless region ecology is so rare and special, it should have special consideration for not marring with un-needed and unwanted towers.	Comment noted.
	Neton	NEP02	There is not a growing demand, and these lines are not truly needed.	FEIS Chapter 1 describes the need for the C-HC Project, as well as the decisions facing the three Federal agencies that have received loan or permit applications for the C-HC Project.
	Neton	ALT01	We should also be considering much lower cost alternative projects for investing in local distribution which is better in the long run for many reasons. Our grid has gotten to large and reliant on long runs between generation sites and we need to think forward.	Comment noted.
	Neton	DECI13	But, the most important reason for not doing this is the land. The impact will be so profound, and this is NOT something you can un-do. Ever. You get one chance to make a decision that will affect literally generations by stopping this. What is the acute need? Is there compelling reason that this MUST go forward? There is NOT.. and the Environmental assessment needs to be thorough and complete and vigilant. Please do not do this to our land! We are stewards of the land, and this is us ruining our natural resources for a reason that has not been proven but will surely make some very wealthy as they only get paid if they build towers. Stop this madness please and consider the land, and the people that inhabit it for generations to come.	The FEIS for the proposed C-HC Project provides a comprehensive and thorough disclosure of potential impacts to the human and natural environment. The FEIS complies with NEPA.
	Sukowaty	DECI13	This ATC power line is unnecessary in the first place. It is only for ATCs profit and greed. ATC is trying to grab and take all the land easements it can now, before their transmission lines become obsolete.	Comment noted.
	Sukowaty	ALT01 REC02	To add insult to injury ATC now wants to cross the Mississippi River National Wildlife Refuge. ATC is not considering alternatives presented by opposing parties. ATC is very intent on getting its way as in Right of Way. It will do anything to get it. This ATC power line will be a degradation on the land of southwestern Wisconsin and on the Wildlife Refuge.	Comment noted.
	Sukowaty	DECI13	Future generations will see this, and ask how did you ever allow this to happen?	Comment noted.
	Zedler	VEG04	The FEIS reads like a template. Wetlands are not given the unique attention they need to avoid negative impacts. BMPs are promised, but not reliably, because caveats indicate they will not be used when impractical. In plain English, the FEIS says the project wont cause significant negative impacts except when it will, and such impacts will be reduced except when they wont.	FEIS Section 3.3 discloses the potential impacts to wetlands and states that the proposed C-HC Project would have permanent moderate impacts to wetlands. Furthermore, these impacts would be measurable but would not be expected to have significant impacts on regional habitat abundance or species populations.

Organization	Commenter Last Name	Comment Code(s)	Comment on FEIS	Agency Response to Comment
	Zedler	VEG04	The FEIS concludes that the project would not affect wetlands, streams, and floodplains because disturbed areas would recover, despite a number of cumulative impacts to habitat and water resources, both during the project and during maintenance. Details are missing on how the project can avoid, mitigate or restore impacts of construction and maintenance. Permanent structures will cause permanent damage. Water quality in streams and wetlands will be impaired when vegetation is cleared and soils are disturbed and compacted or eroded during construction and maintenance. Sedimentation will have negative effects on streams and their rare fauna, e.g., mussels and fish. With more frequent and more damaging floods, the floodplains will become more vulnerable to erosion; wetlands will receive more sediment and nutrients, aggressive alien species will invade, and native biota will be diminished. The earth and its ecosystems are already impaired; constructing an unnecessary powerline will not benefit Wisconsins natural resources.	FEIS Section 3.3 discloses the potential impacts to wetlands and states that the proposed C-HC Project would have permanent moderate impacts to wetlands. Furthermore, these impacts would be measurable but would not be expected to have significant impacts on regional habitat abundance or species populations. Section 3.5 discloses the potential impacts to surface waters and floodplains stating that both short- and long-term minor impacts could occur from the proposed C-HC Project.
	Zedler	EFF04	If this project is approved, ATC should be required to post a multi-million-dollar bond, so that local natural resources experts can monitor impacts indefinitely and implement compensatory measures to reduce damagesin perpetuity.	Comment noted.
	Zedler	EFF04 VEG04	Shortcomings of the ES Below, the quoted text is from Executive Summary pages ES 14-ES 16. Bulleted text is by J. Zedler 10/18-19/2019 Wetlands Impacts to wetlands would be minimized by one or more of the following measures Wetlands are too sensitive and their ecosystem services are too important for damages to be minimized; damage must be avoided. How could one ever be held accountable for not minimizing damages? The criteria are missing; this is not acceptable.	FEIS Section 3.3 discloses impacts to vegetation, including wetlands.
	Zedler	VEG04	Conducting construction activities when wetland soils and water are frozen or stable and vegetation is dormant. What are the criteria for stable? Undefined terms are unacceptable. Use of equipment with low ground-pressure tires or tracks. Placement of construction matting to help minimize soil and vegetation disturbances and distribute axle loads over a larger surface area, thereby reducing the bearing pressure on wetland soils. If tussocks are present, this will only increase the area of damage; this is not acceptable. Sedge tussocks can increase wetland surface area by 40%; flattening them would decrease surface area by 40%.	FEIS Section 3.3 discloses the potential impacts to wetlands from the proposed C-HC Project.
	Zedler	VEG04	Access roads through wetlands will not require permanent fill. Even temporary fill is irreversible in wetlands; surface soil and subsurface peat and highly organic substrates will be flattened, compressed, and irreversibly compacted. This is unacceptable.	Comment noted.
	Zedler	EFF04 VEG04	Erosion control BMPs will be installed where needed to prevent soil erosion into and within wetlands. Installing BMPS is not adequate; maintenance and actual prevention of erosion is essential but rarely achieved; where are the bonds and penalties needed to make sure contractors fulfill the needs?	Comment noted.
	Zedler	AIR04 VEG04	Any spoils will be removed from wetlands to non-sensitive upland areas or other approved location. How much impact of lost carbon sequestration will occur as a result of exposure, aeration and oxidation of organic soil?	FEIS Section 3.6 addresses the estimated change in landcover types and potential change in carbon sequestration rates based on conversion of parts of the C-HC Project area from forested land cover to grassland.
	Zedler	EFF04 VEG03 VEG04	Cleaning of construction equipment and mats, per the Wisconsin Council on Forestrys Invasive Species Best Management Practices: Rights-of-Way guidance to mitigate the spread of invasive species (Appendix D). Where necessary to ameliorate minor impacts, such as rutting and vegetation disturbance due to equipment operation and mat placement in wetlands, site restoration activities will be implemented, monitored, and remedial measures applied until established restoration goals are achieved, as required by regulatory permits obtained for the C-HC Project. How often will cleaning occur? BMPs say standard inspection and disinfection procedures would be incorporated into construction methods, but what is the level of effectiveness of these practices and do they work for herbaceous wetland vegetation? All it takes for Wisconsins worst wetland weed to establish is a viable seed or rhizome fragment or turion. For how long will restoration activities be monitored? Referring only to remedial measures is too vague. What assumptions about forests and wetlands are being made, i.e., why should forest practices suffice in wetlands?	The environmental commitments listed in FEIS Table 3.1-4 and FEIS Appendix I, the Federal Mitigation Plan, will be included in the ROD for the C-HC Project. These measures will be required and enforceable under the Federal agencies' decisions. Monitoring of those environmental commitments is expected to be a condition of the various permits received prior to construction of the C-HC Project. The Utilities will hire environmental monitors who will be present during construction of the C-HC Project, and the environmental monitors will ensure the environmental commitments required by Federal and state agencies are followed. Furthermore, the PSCW order requires the presence of an Independent Environmental Monitor/Independent Agricultural Monitor for the portion of C-HC Project in Wisconsin.
	Zedler	VEG03	Invasive Species The Utilities would follow the Wisconsin Council on Forestrys Invasive Species Best Management Practices: Rights-of-Way guidance to mitigate the spread of invasive species (see Appendix D). There are no proven methods for preventing invasions or eliminating/eradicating invaders once established.	Comment noted.
	Zedler	WAT02	Work below the ordinary high-water mark (OHWM) of waterways would be avoided to the extent practicable; the most likely activity would be withdrawing water to stabilize excavations. Do those who decide whether avoidance would be practicable know about wetland value and sensitivity to disturbance? How would water extraction be done? With a tractor and coring device, pump, pipes, hoses, trampling, and no regard for what the ecosystem depends on?	FEIS Section 3.5 discloses potential impacts to water resources and quality, including impacts to surface water. Furthermore, temporary and permanent impacts to waterways from the C-HC Project will be evaluated through other Federal and state permitting activities. The USACE has reviewed the impacts to waters of the U.S. (WUS) as part of its permitting activities under the Clean Water Act and Rivers and Harbors Act. IDNR will need to issue Sovereign Lands Construction Permit for any construction activities involving meandered sovereign rivers. In Wisconsin, documentation and coordination with the WDNR is required for Outstanding or Exceptional Waters to demonstrate the proposed project meets the requirements of the antidegradation rule (Wisconsin Administrative Code [WAC] Chapter NR 207).
	Zedler	VEG04 WAT02	Before moving construction equipment and material between waterway construction locations where equipment or materials are placed below the OHWM of a waterway, standard inspection and disinfection procedures would be incorporated into construction methods as applicable (see WAC NR 329.04(5)). What is the level of effectiveness of these standard practices and do they work for herbaceous wetland vegetation?	The FEIS provides environmental commitments and mitigation measures that would be required as part of the Federal decisions. The environmental commitments listed in FEIS Table 3.1-4 and FEIS Appendix I, the Federal Mitigation Plan, will be included in the ROD for the C-HC Project. These environmental commitments and mitigation measures have been developed by resource experts; have been assessed by agencies, industries, and peer-reviewed studies; and are known to be effective in mitigating potential adverse impacts.

Organization	Commenter Last Name	Comment Code(s)	Comment on FEIS	Agency Response to Comment
	Zedler	VEG03	All natural areas, such as wetlands, forests, and prairies, will be surveyed for invasive species following construction and site revegetation. If new infestations of invasive species due to construction of the C-HC Project are discovered, measures should be taken to control the infestation. For how long will these areas be surveyed? How frequently? Measures should be taken is a weak suggestion that provides no certainty that any measures will actually be taken. Attempts to control infestations are usually futile for Wisconsins worst wetland weed, Reed canary grass.	The Utilities are required to develop a Stormwater Pollution Prevention Plan that meets Federal and state regulations. This plan would be implemented for construction activities, and surveys would be conducted at frequencies and for durations stipulated by regulation.
	Zedler	VEG03	The WDNR or IDNR, as applicable, would be consulted to determine the best methods for control of encountered invasive species. If the agencies are only consulted, who will implement these long term?	The environmental commitments listed in FEIS Table 3.1-4 and FEIS Appendix I, the Federal Mitigation Plan, will be included in the ROD for the C-HC Project. These measures will be required and enforced under the Federal agencies' decisions. Monitoring of those environmental commitments is expected to be a condition of the various permits received prior to construction of the C-HC Project.
	Zedler	VEG03	The Utilities will employ a Certified Pesticide Applicator for all herbicide applications within the C-HC Project. The Certified Pesticide Applicators will only use herbicides registered and labeled by the USEPA and will follow all herbicide product label requirements. Herbicides approved for use in wetland and aquatic environments will be used in accordance with label requirements, as conditions warrant. Adding herbicides is itself an impact; what are the known impacts and risks?	FEIS Section 3 discloses the potential impacts to resources from the potential use of herbicides for the proposed C-HC Project.
	Zedler	VEG04 WLDLF01	Wildlife, including Special Status Species In accordance with WDNR avoidance and minimization measures, reptile exclusion fencing would be. Where are the data that show how well (or poorly) these measures work in wetlands?	The FEIS provides environmental commitments and mitigation measures that would be required as part of the Federal decisions. The environmental commitments listed in FEIS Table 3.1-4 and FEIS Appendix I, the Federal Mitigation Plan, will be included in the ROD for the C-HC Project. These environmental commitments and mitigation measures have been developed by resource experts; have been assessed by agencies, industries, and peer-reviewed studies; and are known to be effective in mitigating potential adverse impacts.
	Zedler	VEG04 WAT01	Water Resources and Water Quality An erosion control plan, coordinated with the IDNR and WDNR, will be prepared once a route is ordered/approved, and BMPs would be employed near aquatic features (wetlands, streams, waterbodies) to minimize the potential for erosion and to prevent any sediments from entering the aquatic features. Where are the data that show how well (or poorly) these measures work in wetlands?	The FEIS provides environmental commitments and mitigation measures that would be required as part of the Federal decisions. The environmental commitments listed in FEIS Table 3.1-4 and FEIS Appendix I, the Federal Mitigation Plan, will be included in the ROD for the C-HC Project. These environmental commitments and mitigation measures have been developed by resource experts; have been assessed by agencies, industries, and peer-reviewed studies; and are known to be effective in mitigating potential adverse impacts.
	Zedler	VEG04	Erosion controls would be regularly inspected and maintained throughout the construction phase of a project until exposed soil has been adequately stabilized. Where are the data that show how well (or poorly) these measures work in wetlands?	The FEIS provides environmental commitments and mitigation measures that would be required as part of the Federal decisions. The environmental commitments listed in FEIS Table 3.1-4 and FEIS Appendix I, the Federal Mitigation Plan, will be included in the ROD for the C-HC Project. These environmental commitments and mitigation measures have been developed by resource experts; have been assessed by agencies, industries, and peer-reviewed studies; and are known to be effective in mitigating potential adverse impacts.
	Zedler	WAT01	Waterway crossings would require a temporary clear span bridge (TCSB) to avoid the necessity of driving construction equipment through streams. Each TCSB would consist of construction mats, steel I- beam frames, or other similar material placed above the OHWM on either side to span the stream bank. If there are waterways that are too wide to clear span, a temporary bridge with in-stream support would be designed and constructed. Both approaches, bridges and mats, are too risky to protect wetlands.	Potential impacts to wetlands have been reviewed by the USACE as part of the Clean Water Act permitting process. The use of temporary bridges and mats are commonly used practices to help mitigate permanent impacts to wetlands and other WUS.
	Zedler	WAT01	The use of TCSBs would be minimized where possible by accessing the ROW from either side of the stream or by using existing public crossings to the extent practical. The Utilities would work with private landowners to identify alternative access routes to further reduce the use of stream crossings, if possible. Reducing and mitigating are imprecise ways of saying there will be uncertain damages; these are not acknowledged or avoided.	The FEIS discloses potential impacts to water resources and quality in FEIS Section 3.5 and potential impacts to wetlands in FEIS Section 3.3.
	Zedler	WAT01	For those streams that would not be crossed by construction vehicles and where stream-crossing permits have not been acquired, wire would be pulled across those waterways by boat, by helicopter, or by a person traversing across the waterway. Wire stringing activity may require that waterways be temporarily closed to navigation. Still, the damage is uncertain and potentially irreparable.	The FEIS discloses potential impacts to water resources and quality in FEIS Section 3.5 and potential impacts to wetlands in FEIS Section 3.3.
	Zedler	WAT01	No structures would be located below the OHWM. Will OHWM be guessed on site? Where are data?	The ordinary high-water mark (OHWM) is typically determined during a site-specific survey. The Utilities have committed to not placing structures below the OHWM and this commitment will be enforced through permits issued by USACE, WDNR, and IDNR.
	Zedler	WAT01	Any dewatering within the project area during construction would be discharged to a non-sensitive upland site to facilitate reinfiltration to the aquifer. Explain the dewatering procedure, its locations, extent, duration and impacts!	FEIS Section 3.5 discloses potential impacts to water resources and quality, including vegetation removal along streambanks and impacts to floodplains. Due to the current design phase of the C-HC Project, the specific locations of structures are not known. Similarly, the specific geotechnical information for each structure location has not been collected. Therefore, the FEIS is not able to disclosure where dewatering would occur or where the water would be discharged. Table 3.1-4 contains the following environmental commitment, “Any dewatering within the project area during construction would be discharged to a non-sensitive upland site to facilitate re-infiltration to the aquifer.”
	Zedler	WAT01	Nearby waterways could be used as a water source during project construction. The Utilities would attempt to avoid water withdrawals during spawning seasons. The Utilities would coordinate water withdrawals with the IDNR and WDNR. Attempting to avoid reproductive seasons of fish, birds, amphibians, and all threatened plants and animals is inadequate and unacceptable. Wetlands are too sensitive; avoidance is indicated.	Comment noted.

Organization	Commenter Last Name	Comment Code(s)	Comment on FEIS	Agency Response to Comment
Ice Age Trail Alliance	Thusius	DATA05	Please confirm receipt. Thank you,	Receipt of this comment was confirmed.
Ice Age Trail Alliance	Thusius	DECI13	The Ice Age Trail Alliance strongly opposes the outcome of the Final Environmental Impact Statement for the Cardinal-Hickory Creek 345-kV Transmission Line Project due to its impact on the Ice Age National Scenic Trail	Comment noted.
Ice Age Trail Alliance	Thusius	VIS01	THE IMPACTS: There are three separate simulations identified as viewpoints 3, 4 & 5 on page 368 in the EIS that are identified as having a moderate impact on the Ice Age Trail and Ice Age Complex (page 371).	Comment noted.
Ice Age Trail Alliance	Thusius	VIS01	Additionally, the assessment of viewpoint 2 on page 366 misses the mark when the EIS states: Future segments of the Ice Age NST are planned for this location; therefore, there would be minor impacts to future segments of the Ice Age NST from the C-HC Project at this location. Impacts would be minor because the visual character represented in the existing viewshed would not be substantially altered by the C-HC Project given that there is an existing transmission line in this viewshed. This is partially because, in December, the Alliance will own additional land on Stagecoach Road that would allow for the development of the Ice Age Trail at viewpoint 2. Furthermore, the existing transmission line is significantly lower than - and the tower significantly less visible than - the proposed transmission line. I have included two photos below taken from the parcel the Alliance will own by the end of 2019. The negative impact to the Ice Age Trail in this location will be signifcant. [photo] 1 - Looking southwest from new IATA property. Transmission lines will be on the left of the photo. [photo] 2- Looking east from new IATA property. Transmission lines will be on the right of the photo.	FEIS Section 3.11 discloses potential impacts to visual quality and aesthetics from the proposed C-HC Project. This section includes numerous representative photos and visual simulations of potential changes in the landscape and viewshed resulting from the C-HC Project at different distances from the proposed transmission line, ranging from 150 feet to 2+ miles. Specific to potential impacts to the Ice Age National Scenic Trail, FEIS Section 3.11 includes seven visual simulations and a narrative discussion of long-term, adverse visual resource impacts to the trail from the proposed C-HC Project. RUS and the Cooperating Agencies took a hard look at the potential visual resource impacts and adequate information is presented to inform the Federal decision makers about the potential visual resource impacts.
Ice Age Trail Alliance	Thusius	SOCIO03 SOCIO06 VIS01	Furthermore, the EIS clearly states on page 371 that there will be moderate and long-term major adverse impact to scenic resources at the various viewpoints 3, 4 and 5 see Figures 3.11-15, 3.11-16, and 3.11-17. These impacts are summarized on page 400, Section 3.11.3.1. The EIS also states the impact to tourism, specifically as it relates to the Ice Age National Scenic Trail on page 434. Also, as a property owner along the proposed transmission line, the Ice Age Trail Alliance is concerned about the loss of property value. Both federal and state funding have been used to acquire this property and the impact on these properties form the transmission lines will clearly have a negative impact on the publics interest in these lands.	FEIS Section 3.12 discloses the potential impacts to tourism from the proposed C-HC Project. FEIS Section 3.11 discloses potential impacts to visual quality and aesthetics, and specifically addresses potential impacts to the Ice Age National Scenic Trail.
Ice Age Trail Alliance	Thusius	SOCIO03	In summary as stated in several locations within the EIS the proposed Cardinal-Hickory Creek transmission line would have a significant long-term negative impact on the Ice Age National Scenic Trail and on the publicly-funded properties owned by the Ice Age Trail Alliance on Stagecoach Road.	FEIS Section 3.12 discloses the potential impacts to tourism from the proposed C-HC Project. FEIS Section 3.11 discloses potential impacts to visual quality and aesthetics, and specifically addresses potential impacts to the Ice Age National Scenic Trail.
Ice Age Trail Alliance	Thusius	EFF04 SOCIO03	MITIGATION: Despite major negative impacts to the Ice Age NST and to the Ice Age Trail Alliance-owned property, the EIS does not adequately address mitigating impacts of the proposed transmission line.	The following environmental commitment is included in FEIS Section 3.1 for visual resources, “Steel monopoles with weathered finish will be used at visually sensitive locations to minimize the visual impacts to the landscape.”
Ice Age Trail Alliance	Thusius	ALT04	Previously, both the National Park Service and Ice Age Trail Alliance have requested burying the transmission line between Cleveland Road and County Highway P. On page 66, the EIS states that to avoid impacts to the Ice Age Trail and Cross Plains Complex, it would require burying 11.4 miles of buried transmission line. Using this distance greatly overexaggerates the desired goal of minimizing impacts from the most impacted viewpoints: 2, 3, 4 & 5. The distance between Cleveland Road, along US-14, then Stagecoach, along Section X to County Highway P is only 2.4 miles. With some further analysis, that distance could be reduced to 1.9 miles the lines could be re-elevated behind the hills south of Stagecoach Road. If there had been a detailed study of the option of burying the lines in this location, and, minimizing nearly all impacts to the Ice Age National Scenic Trail, it is likely that study would have showed a significantly lower cost for burying the lines. The EIS falls woefully short in this area.	FEIS Section 2.2.2 provides rationale for not carrying forward non-transmission, lower-voltage, and underground alternatives for detailed analysis.
Ice Age Trail Alliance	Thusius	ALT04 SOCIO03	Furthermore, the Ice Age Trail Alliance and its partners at the National Park Service, Wisconsin Department of Natural Resources and Dane County all hold land in this area for the purpose of protecting the Ice Age Trail and the world renown glacial/Driftless Area margin. To that end, these partners have spent more than $7.5 million to acquire lands for the preservation of land and the publics use of said land. The EIS states there will be an impact to tourism, yet offers no plans for proper mitigation of the areas economy. The EIS also falls woefully short in addressing how the impacts of the transmission lines will impact these public lands and how those impacts will be mitigated. Had a detailed analysis of burying lines along the 2.4-mile section of the transmission line between Cleveland Road and County Highway P, the study would have likely revealed a proportionally lower cost when factoring-in the negative costs associated with the loss to tourism and land values.	FEIS Section 2.2.2 provides rationale for not carrying forward non-transmission, lower-voltage, and underground alternatives for detailed analysis.
Ice Age Trail Alliance	Thusius	ALT04 EFF04	Since the EIS only discussed the cost of burying the transmission lines and did not include any mitigation costs, the numbers look lopsided and dont present a compelling argument for the costs of burying the lines. However, when ALL factors are considered, the cost of burying the line would surely be a value worth consideration provided the overall cost of the proposed $500M transmission line project.	FEIS Section 2.2.2 provides rationale for not carrying forward non-transmission, lower-voltage, and underground alternatives for detailed analysis.
Ice Age Trail Alliance	Thusius	ALT04	SUMMARY: In their Record of Decision, the Rural Utilities Service should seek to minimize the negative impacts to the Ice Age National Scenic Trail by burying up to 2.4 miles of the proposed Cardinal-Hickory Creek transmission line between Cleveland Road and County Highway P, or, at minimum, the RUS should require a comprehensive study to determine all the impacts and costs of burying the transmission line in the area that most impacts the Ice Age Trail. Finally, if none of the above are considered, the RUS should require mitigating the negative impacts of the transmission line by acquiring other conservation lands or providing funding for the acquisition of land for protection of new sections of the Ice Age Trail in this area.	FEIS Section 2.2.2 provides rationale for not carrying forward the underground alternative for detailed analysis.
	Vivian	HAS01 WLDLF01	I have a number of reasons to disapprove of these. Some, but not all, are as follows: They are environmentally very badhealth risks to humans AND wildlife.	FEIS Chapters 3 and 4 disclose potential impacts to the human and natural environment.
	Vivian	VIS01	High voltage wires will be directly in my viewpoint from my backyard. I choose to live in a peaceful rural community. I dont expect to live in an industrial area, which the monstrous towers become.	FEIS Section 3.11 discloses potential impacts to visual quality and aesthetics from the proposed C-HC Project.
	Vivian	ALT04	Underground is the only acceptable way, if truly needed!	Comment noted.
	Vivian	PUB01	Please listen to the people.	Comment noted.

Organization	Commenter Last Name	Comment Code(s)	Comment on FEIS	Agency Response to Comment
	Zastrow/ Hendrickson	PUB01	What is the point of an EIS if you do not follow up on our concerns? Our comments were not adequately addressed.	RUS and the Cooperating Agencies took all public comments received during scoping, the DEIS public review period, and the FEIS review period seriously and revised the environmental impact statement (EIS) to address substantive public comments.
	Zastrow/ Hendrickson	DECI13	ATC and ITC do not follow best management practices. Did you ever consider that these corporations can (and do) misrepresent their practices to further their profit motive rather than furthering the public good? The fact that there is no follow up and the USDAs only action is to ask the companies about their policies only points out how useless the Federal EIS is. It also points out the fact that the utilities and MISO are making vast amounts of money through capital investment by which they then control government agencies. This is the tail wagging the dog.	Comment noted.
	Luecke	DECI13	600 pages of mumbo-jumbo! If you are interested in the environment, it us simple.	Comment noted.
	Luecke	WLDLF01	The high voltage wires harm the environment in many ways. I'll site two ways here. If the stray voltage kills one bird, it is horrid! However, 20,000 birds are expected to die each year----IF the125 miles of towers are erected.	FEIS Section 3.4 discloses potential impacts to bird species and FEIS Section 3.13 discloses potential impacts from stray voltage.
	Luecke	HAS01	Stray voltage also harms humans. If one child gets leukemia from the voltage leakage, it is horrid! However, multiple cases of leukemia have been documented where other towers exist. This CHC project must be stopped	The topic of stray voltage is discussed in FEIS Section 3.13.
	Kylloe	DECI13	I am completely against the grid and of any wires going through, or over a sanctuary of any kind. Because of those high voltage and radiation involved thats the practical reason, and good enough to stop that Hickory Creek Line by itself. The main reason for my opposition however, lies in an invention of mine. A free energy machine that generates pure electricity, and doesnt create any type of pollution. Some thing I came up with back in 1996, but Bill Clinton wouldnt allow it to be patented, and hes been trying to ruin me over. Since to the detriment of this country, its citizen and the wildlife, along with the environment, and I do believe this grid, with solar paneling is the cause of all these weather abberations. Otherwise known as climate change and could all be stopped through the use of my machine. That doesnt need power lines, and could for our rural areas of them forever. Through a small generator, affordable to anyone renters, or homeowners, and one that freed us from pollution. Not what Bill Clinton was looking for, back in 96, and when I sent it to Bob Dole for a political issue, Clinton wouldnt even allow him to find out about it, and hes been ?? Doles ?? ever since without regard for the environment, and my great hope is that youll step into things. After this country has been on the downside for the last 23 years, and you could be the ones who saved it.	Comment noted.
U.S. Environmental Protection Agency	Westlake	DECI02	In accordance with our responsibilities under Section 309 of the Clean Air Act and the National Environmental Policy Act the U.S. Environmental Protection Agency (EPA) has reviewed the U.S. Department of Agriculture, Rural Utilities Services (RUS) Final Environmental impact Statement (EIS) for the Cardinal-Hickory Creek 345-kV Transmission Line Project dated October 2019. As a cooperating agency, EPA has long been involved in this project, including reviewing and commenting on preliminary versions of the Draft EIS in 2018 and Final EIS in 2019. Dairyland Power Cooperative. American Transmission Company LLC, and ITC Midwest LLC, together referred to as 'the Utilities," propose to construct and own a new 345-kV transmission line between Dane County, Wisconsin, and Dubuque County, Iowa. The purpose is to improve reliability and reduce congestion on the regional bulk transmission system as well as expand access of the transmission system to additional resources, including lower-cost generation and renewable energy generation. The Draft EIS analyzed six alternatives, and a preferred alternative had not yet been designated. In the Final EIS, RUS identified Alternative 6 - South-North Crossover Corridor - as the Agency Preferred Alternative.	Thank you for your comment.
U.S. Environmental Protection Agency	Westlake	AIR01	EPA's March 29, 2019 comment letter on the Draft EIS included comments pertaining to construction-related air impacts and mitigation of impacts to terrestrial resources. Our comments regarding air impacts and percentage of impacts to different resource types within a geographic area were adequately addressed.	Thank you for your comment.
U.S. Environmental Protection Agency	Westlake	VEG01	However, we recommend responses to two outstanding comments: (l) Mitigation/restoration for impacts to plant communities that do not require a permit. The Final EIS states: "Vegetation removal could affect vegetation communities by changing community structure and composition and altering soil moisture or nutrient regimes. The degree of impact depends on the type and amount of vegetation affected; and, for short-term impacts, the rate at which vegetation would regenerate following construction." However, it does not address long-term impacts due to removal of upland forested vegetation and whether upland forested vegetation will be re-planted. Therefore, EPA reiterates our comment on the Draft EIS and strongly recommends mitigation for upland tree loss using native species at a minimum ratio of 1: 1. The Iowa and Wisconsin Departments of Natural Resources (DNR) can provide the Utilities with a list of suitable replacement species. EPA recommends RUS make this commitment in the Record of Decision.	FEIS Section 3.3 discloses potential temporary and permanent (long-term) impacts to vegetation for each alternative. Generally, the C-HC Project would result in conversion of forested land to grassland. For example, under Alternative 6, approximately 250 acres of forest land would be permanently removed over the length of the C-HC Project between the Cardinal Substation in Wisconsin and the Hickory Creek Substation in Iowa. It is anticipated these acres would be managed as grassland to meet national safety standards. As described in FEIS Section 2.4.4, the vegetation within the ROW would be maintained to comply with NERC reliability standards for transmission line ROW vegetation management. Therefore, trees cannot be replanted in the transmission line ROW, which is the primary space in which the Utilities are allowed to work within for the C-HC Project. The recommended mitigation of upland tree planting is not a legal standard in Wisconsin or Iowa; therefore, Federal agencies cannot require the Utilities to follow this recommendation for tree removal on non-Federal land. However, mitigation measures identified in FEIS Appendix I for the Refuge does address compensatory mitigation to achieve no net loss of habitat and quality within the Refuge.

Organization	Commenter Last Name	Comment Code(s)	Comment on FEIS	Agency Response to Comment
U.S. Environmental Protection Agency	Westlake	VEG03	(2) Non-native. invasive species (NNIS). Table ES-5 of the Final EIS, Environmental Commitments Common to All Action Alternatives, states: "All natural areas. such as wetlands, forests. and prairies, will be surveyed for invasive species following construction and site revegetation. If new infestations of invasive species due to construction of the C-HC Project are discovered, measures should be taken to control the infestation. The Wisconsin DNR or Iowa DNR, as applicable. would be consulted to determine the best methods for control of encountered invasive species." Appendix D of the Final EIS, Best Management Practices, includes provisions for managing invasive species encountered in uninfested natural areas within the Right of Way. following Wisconsin's Council on Forestry Standard Best Management Practices (BMPs). EPA strongly recommends that the Record of Decision provide for NNIS control applying BMPs (or other best methods identified by Wisconsin DNR or lowa DNR) throughout the entire right of way, including natural areas regardless of whether they are already infested. Controls should cover both construction and port-construction periods.	Table 3.1-4 provides a list of environmental commitments that would be implemented during construction and operation of the C-HC Project. Specific to the control of invasive species, there are five commitments. One of the commitments include following the Wisconsin Council on Forestry's "Invasive Species Best Management Practices: Rights-of-Way" guidance to mitigate the spread of invasive species. This commitment would be followed throughout the C-HC Project construction area. The environmental commitments listed in FEIS Table 3.1-4 and FEIS Appendix I, the Federal Mitigation Plan, will be included in the ROD for the C-HC Project. These measures will be required and enforceable under the Federal agencies' decisions. It is also important to note that control of non-native invasive species is included as conditions in other state and Federal permits, such as the order issued by the PSCW. The Utilities are committed to taking reasonable measures to prevent the spread of non-native invasive species into new areas within the construction area, as described in the FEIS (Table 3.1-4, Appendix D, and Appendix I) and those permit conditions obtained through other state and Federal agencies. However, non-native invasive species can be spread in many different ways, including animals and weather conditions that are outside the control of the Utilities. The environmental commitments/BMPs/mitigation measures identified in the FEIS are intended to manage the potential spread of non-native invasive species that could result from the construction and operation of the C-HC Project.
U.S. Environmental Protection Agency	Westlake	PUB05	We appreciate the opportunity to review this project. Please send us a copy of the Record of Decision when it is completed	Thank you for the comment letter.
Utilities	Azar	DECI09	The Utilities are in full support of the Draft Compatibility Determination and the analysis provided therein. The FEIS sets forth the statutory authority for issuing rights of way (ROW) for powerlines within national refuges1. Specifically, the National Wildlife Refuge System Administration Act authorizes the Secretary of Interior, acting through the USFWS, to permit the use of, or grant easement in, over, across, upon, through or under any areas within the system for purposes such as but not necessarily limited to, powerlines,.whenever he determines that such uses are compatible with the purposes for which these areas area established. (Emphasis added) 16 U.S.C. 668dd(d)(1). To implement this statutory authority, the USFWS created rules setting forth the requirements for approving powerlines in refuges. See 50 C.F.R. 29.21-8. The Draft Compatibility Determination primarily focuses on the provisions of 50 C.F.R. 26.41 and 29.21 for evaluating compatibility of a refuge crossing for the Cardinal-Hickory Creek project (Project).	Comment noted.
Utilities	Azar	DECI09	The Utilities note that, like in the FEIS, the USFWS could include within the Final Compatibility Determination the USFWSs authority to grant an easement for powerlines under 16 U.S.C. 668dd(d)(1).	Comment noted.
Utilities	Azar	DECI09	Also, page 1 of the Draft Compatibility Determination states that [t]he Project would also include two optical ground wire shield wires for lightning protection and protective relay communications. The term protective relay in this context is ambiguous and technology and its uses are changing all of the time. Optical ground wires (OPGWs) have other uses, such as the ability to send transmission system condition information required for operating the transmission system. Accordingly, the Utilities believe it would be appropriate to remove the words "protective relay" before the word "communications" on page 1 of the Compatibility Determination.	Comment noted.
	Mittelstadt	WLDLF04	The Final Environmental Impact Statement for the Cardinal-Hickory Creek Transmission Line Project is woefully inadequate, including with regard to rare species and habitats.	FEIS Sections 3.3 and 3.4 discloses the potential impacts to habitats and wildlife from the proposed C-HC Project.
	Mittelstadt	PUB01	Scoping comments and critiques of the draft EIS, by myself and others, have been ignored by RUS.	RUS and the Cooperating Agencies took all public comments received during scoping, the DEIS public review period, and the FEIS review period seriously and revised the EIS to address substantive public comments.
	Mittelstadt	WLDLF04	Surveys for Rare Species & Habitats Have Not Been Done I have been a forester in southwest Wisconsin for about 40 years and have considerable experience with the landscape and ecology of the area generally, and with rare (Special Status) habitats and species. My approach to forestry is holistic and includes consideration of wildlife and flora beyond just the trees. Over the years, I have found quite a few locations of rare plants, rare animals, and rare habitats like savannas and pine relicts, which are not recorded. As explained in my Draft EIS Comments, I am very concerned that the RUSs environmental review process has not included actual surveying for species & habitats along the entire route. This issue has not been resolved in the FEIS. FEIS acknowledges in Section 3.3.1.3 that: Several state and/or federally listed plant species have the potential to occur in counties crossed by the C- HC Project. Yet it also says, Targeted plant inventories have not been completed for the project. In the response to comments, the FEIS asserts: EIS Sections 3.3 and 3.4 address impacts to special habitats (e.g., pine relicts) and rare plant and animal species.	As presented in FEIS Sections 3.3 and 3.4, field survey efforts have occurred where possible, and additional surveys will be conducted as required and in coordination with state and Federal agencies. Additionally, the FEIS discloses the potential impacts to special status species and habitat from the proposed C-HC Project.
	Mittelstadt	WLDLF04	Additionally, analyses were based on various datasets and at varying levels of resolution and detail that are sufficient to disclose the potential impacts of the C-HC Project to these resources.	Comment noted.
	Mittelstadt	WLDLF04	I strongly disagree that the analyses done by RUS are sufficient to disclose the impacts of the transmission line. I have personally discovered over 100 new locations of various rare species and a similar number of new locations of rare habitats, although I have not covered even 5% of the forests in this area. A simple extrapolation would suggest that many more unknown locations are out there, and a 100+ mile transmission line would affect many of them. The streams, wetlands or other habitats would have additional occurrences. It is not adequate to only examine existing records of locations already known to an agency. This approach will necessarily miss many important resources that would be affected.	FEIS Section 3.3 presents the vegetation and field survey efforts have occurred where possible, and additional surveys will be conducted as required and in coordination with state and Federal agencies. Furthermore, Section 3.3 discloses the potential impacts to these resources from the proposed C-HC Project.

Organization	Commenter Last Name	Comment Code(s)	Comment on FEIS	Agency Response to Comment
	Mittelstadt	VEG02	This lack of detail is reflected in the FEIS. Section 3.3 Vegetation, including Wetlands and Special Status Plants acknowledges that most of the information on vegetative communities was obtained by looking at the WDNR Natural Heritage Inventory. Yet the NHI is only based upon occurrences reported to the WDNR-NHI staff. As stated in my Scoping and DEIS comments, many locations have not been explored so many occurrences are not yet known, and many known occurrences are not reported to the NHI. Section 3.3.1.1 provides general descriptions of the ecoregions that the line would pass through and describes some characteristic or typical species, but it does not describe specific observations or species actually found in any of the route locations.	FEIS Section 3.3 presents the vegetation resource data compiled from multiple agencies and sources as well as data from field survey efforts where possible. FEIS Section 3.3 discloses the impacts to vegetation resources that are known to occur in the analysis area and those that have the potential to occur from the proposed C-HC Project.
	Mittelstadt	WLDLF04	3.4 Wildlife, including Special Status Species says it presents the occurrence and distribution of wildlife species within the analysis area, including special status species. Yet the statement is clearly made in 3.3.1.3; Targeted inventories have not been completed for the project.	FEIS Section 3.4 presents the wildlife species occurrence and distribution data compiled from multiple agencies and sources. As presented in Section 3.4, field survey efforts have occurred, and additional surveys will be conducted as required and in coordination with state and Federal agencies.
	Mittelstadt	VEG01 WLDLF01	RUS Was Well Aware That Such Surveys Were Necessary As I stated in my Draft EIS Comments, I personally spoke with Dennis Rankin of RUS during Scoping about the need of surveys, and I told him that there are experts in the relevant fields who would be competent to do these surveys. Mr. Rankin asked me if I know of such experts, and I assured him that I would be glad to provide whatever hed need. This shows that he understood the need of surveying and its importance to the EIS. Mr. Rankin was also in the hearing room, when I made my DEIS comments that such surveys and information were lacking in the DEIS. But to date, I have not been asked for such contacts or heard anything further from RUS. Nor have any of the experts with whom I am acquainted said that they have been contacted by anyone regarding CHC or these issues. Nor is any such information included in the FEIS. The FEIS stated: Field surveys were conducted for portions of the proposed project area with access permission. For those areas where access was not provided, the most recent datasets were used to characterize existing resource conditions. Nearly all of the land along the CHC routes is privately owned. It seems unlikely that landowners were asked for permission. (I manage the prairie at Deer Valley Golf Course, which is a really nice, high quality prairie with a lot of diversity and about 20 rare species including a Federally Listed species. The preferred CHC route would cross Deer Valley, and NHI records include these species on this property, yet they were not even asked for permission to conduct any survey. Other landowners, including some with rare species & habitats, have also not been contacted for permission to survey.) Further, the EIS does not mention any such land surveys, let alone surveys of all or most of the proposed routes. Because the FEIS has not carried out surveys for rare species or habitats, it cannot adequately describe the impacts. Section 3.3.2 says: This section describes impacts to vegetation associated with the construction, operation, and maintenance of the C-HC Project. Impacts to vegetation are discussed in terms of impacts to vegetation communities, special status plants, and invasive species.	As presented in FEIS Section 3.3, field survey efforts have occurred where possible, and additional surveys will be conducted as required and in coordination with state and Federal agencies. Additionally, FEIS Section 3.3 discloses the potential impacts to vegetation resources from the proposed C-HC Project.
	Mittelstadt	WLDLF01	Section 3.4 says This section presents the occurrence and distribution of wildlife species within the analysis area, including special status species. But in fact they only describe regions in broad general terms, and name a few representative species. While a list of Special Status species is provided, there is virtually no mention of the existence or absence of those species, nor of any efforts to survey for them. I	FEIS Section 3.4 presents the wildlife species occurrence and distribution data compiled from multiple agencies and sources. Whereas representative species from various taxa groups are mentioned to provide context and describe the potential impacts to various species that occur within the analysis area, the reports and data sources are cited in text, and full citation information is located in Section 7. As presented in Section 3.4, field survey efforts have occurred, and additional surveys will be conducted as required and in coordination with state and Federal agencies.
	Mittelstadt	VEG03	It should be noted that invasive species impacts were given the same scant treatment. While my earlier comments did not focus on invasive species, others commenters did so, and their concerns have not been addressed in the FEIS. Section 3.3.1.3.3 says: The 2017 fieldwork did not include targeted surveys to identify all invasive species (Dairyland 2016b). The FEIS therefore cannot accurately describe how invasive species may be spread along the transmission line route. Nor is there any mention of the ongoing work which would be necessary over the years to control invasive species.	FEIS Section 3.3 discloses the potential invasive species impacts from the proposed C-HC Project. Table 3.1-4 includes measures that would be implemented to control invasive species.
	Mittelstadt	VEG01 WLDLF01	The FEIS cannot describe the impacts if the CHC line was built because it does not even know which rare communities, Special Status plants or animals, or invasive species are on the route. The EIS leaves it up to the Applicants to do the work that RUS should have done The EIS seems to excuse the lack of surveys or information by saying; Utilities would complete vegetation surveys prior to construction Its difficult to believe -- a) that the Utilities which have not yet bothered to look for rare species or habitats, would then decide to make a sincere effort to find them after they would already have approval to build the line. b) that the profit-driven companies would hire any credible specialists to survey the areas, who might report rare species or habitats, which would delay or prevent construction. c) that the entire process of application for a new route, including public comments and new maps and new surveys, would be reenacted to avoid any such locations that would be discovered. The FEIS does not even explain why it believes the utilities would do such surveys, or what consequences or resolutions would occur if the utilities failed to survey or turned a blind eye to whatever might be there. It is not adequate for RUS to shirk its responsibility or to rely on a for-profit company to act against its own best interest.	FEIS Section 3.3 presents the vegetation resource data compiled from multiple agencies and sources, and field survey efforts have occurred where possible. Additional surveys will be conducted as required and in coordination with state and Federal agencies.
	Mittelstadt	WLDLF01	Species Lists Used in the FEIS Are Highly Inadequate Section 3.4.1.2.2 Birds says; There are 316 bird species native to Iowa and Wisconsin that may be present year-round, or as migrants. Ten are species considered at risk following NatureServes Standards and Methods for assessment (Ridgely et al. 2003). I am not highly knowledgeable about birds, yet I recognize 24 rare bird species which occur in the Wisconsin portion of the Project Area and are on DNRs NHI list of rare birds (https://dnr.wi.gov/topic/EndangeredResources/Animals.asp?mode=list&Grp=7). An expert would probably recognize more than these 24. NatureServe seems an odd source to use for rare bird species in southwest Wisconsin, and the use of 2003 methods or information is suspect as well. 3.4.1 relies in substantial part upon; the Audubon Societys current Christmas Bird Count data for Cassville, Dubuque, Fennimore, and Mount Horeb were reviewed, as these systematic surveys provide information on resident bird populations (National Audubon Society 2018). This count is done in late December and early January, long after many migrating species have left the state and the region. Summer nesting habitat is critical for most rare species. Nesting bird surveys are usually done in June. No information is provided in the FEIS re bird populations in the summer.	FEIS Section 3.4 presents the bird species data compiled from multiple agencies and sources and multiple methods are used to describe bird populations. Section 3.4 discusses the status of populations at the state level but also includes the status of the population as a whole, hence the use of the NatureServe's Standards and Methods. A population can be rare or of concern within a state, but the overall species population could be common or abundant, so both methods are included to provide context of potential impacts to populations both locally and globally. Lastly, Section 3.4 includes data from both local Christmas Bird Counts that provide information on resident species and breeding bird surveys that provide information on migrants and breeding bird populations.

Organization	Commenter Last Name	Comment Code(s)	Comment on FEIS	Agency Response to Comment
	Mittelstadt	VEG02	Appendix E Special Status Plants List; lists only 34 species which might occur in the Project Area in Wisconsin. From just a very brief review of the list, and no input from plant experts, I find numerous species missing; these are species which I know occur in the Area because I have found populations of each. Perhaps more Concerning is that I have reported each to the NHI database from one or more locations, yet they dont show up in Table E or in the FEIS. These include; cream gentian, yellow hyssop, great white lettuce, Firepink, violet bush clover, glade mallow, heart leafed skullcap, great Indian plantain and swamp agrimony. If the list was further scrutinized by experts, its extremely likely that many more species would be found to be missing.	FEIS Section 3.3 presents the vegetation resource data compiled from multiple agencies and sources as well as data from field survey efforts where possible. FEIS Section 3.3 discloses the impacts to vegetation resources that are known to occur in the analysis area and those that have the potential to occur from the proposed C-HC Project.
	Mittelstadt	WLDLF01	Section 3.4.1.2 General Wildlife Species; does not seem to include any insect species (and only 6 rare species are noted elsewhere). Yet DNRs NHI list of Special Status insects (https://dnr.wi.gov/topic/EndangeredResources/Animals.asp) includes such a large number of such species, that its probable that dozens exist in the Project Area. 3.4.1.3.1 does not include anything about habitat, despite its title (and critical habitat).	FEIS Section 3.4.1.3.1 includes a list of insect species that potentially occur within the analysis area according to WDNR. Section 3.4.1.3.1 states that there is no critical habitat found within the analysis area. General habitats are discussed for special status species in corresponding sections.
	Mittelstadt	WLDLF04	3.4.1.2.2 further says; The U.S. Department of Interior, Office of the Solicitor recently found that MBTA prohibitions (e.g., pursuing, hunting, taking, capturing, or killing migratory birds, or attempting to do the same) applies only to direct and affirmative purposeful actions that reduce migratory birds, their eggs, or their nests, by killing or capturing, to human control (U.S. Department of Interior 2017). The inference seems to be that destruction of habitat by the CHC would not violate the Migratory Bird Treaty Act, and therefore is OK.	FEIS Sections 3.3 and 3.4 discloses the potential impacts to habitats from the proposed C-HC Project.
	Mittelstadt	VEG01	3.3.3 Summary of Impacts says; For all action alternatives, impacts to vegetation would be moderate, impacts to special status species would be minor, and impacts to invasive species would be minor. This statement flies in the face of a huge body of experience, research, experts opinions and agency programs. It is bluntly absurd. Volumes of information are available from various agencies, including ones which the FEIS has used, which would clearly show RUS that impacts of a project such as CHC is very significant to Special Status species. The impacts to most Special Status species would be to wipe out the population. It does not seem appropriate for any EIS to avoid considering listed rare species or habitats, to selectively sort information for the benefit of the Applicants, or to rationalize that habitat destruction or population decreases are OK. The FEIS greatly deficit in many ways, including in its attempt to minimalize impact to rare species and habitats. RUS has ignored its obligation to do a robust examination of the resource and possible impacts; instead RUS has made a concerted effort to avoid recognizing what is on the land and would be damaged.	FEIS Section 3.3 discloses the potential impacts to special status species from the proposed C-HC Project.
	Mittelstadt	PUB01	RUS has ignored Scoping Comments and Comments on the Draft EIS.	RUS and the Cooperating Agencies took all public comments received during scoping, the DEIS public review period, and the FEIS review period seriously and revised the EIS to address substantive public comments.
	Mittelstadt	DECI13	The FEIS reads as though it was developed by the Applicants, solely for their benefit. It must be rejected as inadequate, and must be replaced by a real EIS.	Comment noted.
	Pincus	VEG01	1. The EIS statement did not pay enough attention to the possibility of wild fires being started by sparks from high voltage lines like the proposed CHC. There are several states bedsides California where wild fires have been ignited by these power lines	Comment noted. FEIS Section 3.13 discloses the potential impacts to public health and safety from the proposed C-HC Project.
	Pincus	HAS01	2. There are elementary schools located right next to where the CHC line will be passing. In the village of Barneveld it will pass right over the playground. Several reputable scientific studies have shown higher risks of childhood cancer in children exposed to the electromagnetic fields coming off of high voltage lines. Below is a list of these studies: Citations: Draper, G. et al, Childhood Cancer in Relation to Distance from Power lines in England and Wales: A case-control study British Medical Journal, Vol. 330, 2005 Feychting, M. et al, Magnetic Field and Childhood Cancer - A pooled analysis of two Scandinavian studies European Journal of Cancer, Vol. 31, Issue 12, Nov. 1995. Kabuto, M. et al, Childhood Leukemia and Magnetic Fields in Japan: a case-control study of childhood leukemia and residential power-frequency magnetic fields in Japan, International Journal of Cancer, Vol. 119, Issue 3, 2006. Kheifets, L. et al, Pooled Analysis of Recent Studies on Magnetic Fields and Childhood Leukemia, British Journal of Cancer, Vol. 103, 28 September 2010. Olsen, J. H. et al, Residence Near High Voltage Facilities and Risk of Cancer in Children, British Medical Journal, Vol. 307, 1993. Savitz, David et al, Case Control Study of Childhood Cancer and Exposure to 60 - HZ Magnetic Fields, Amer. Journal of Epidemiology, Vol. 128, Issue 1, July 1988. Tomenius, L., 50 - HZ Electromagnetic Environment and the Incidence of Childhood Tumors in Stockholm County Bioelectricmagnetics, Vol. 7, 1986. Wertheimer, H. et al, Electrical Wire Configurations and Childhood Cancer American Journal of Epidemiology, Vol. 109, 1979. Thank you for considering my comments. Allen Pincus 7836 Lakeview Road Barneveld, WI 53507	FEIS Section 3.13 discusses the topic of electric and magnetic fields (EMF) and discusses the studies related to the potential risk of childhood leukemia from magnetic fields.
Driftless Defenders	D'Angelo	DECI13	The land and the people must take precedence over greedy corporate interest!	Comment noted.
Driftless Defenders	D'Angelo	NEP02	No need has been proven that would justify tearing up and altering forever Southwest Wisconsin	Comment noted.
Driftless Defenders	D'Angelo	SOCIO03	The Driftless Area is a unique ecosystem that needs to be protected. Its topography and beauty are loved by the residents and the tourists who come here to escape urbanization and connect with Nature. Building industrial-sized Cardinal Hickory Creek transmission lines will devastate the area.	Comment noted.
Driftless Defenders	D'Angelo	LAND09	Worse yet, the corridor it creates will pave the way for even greater devastation as more unneeded projects are developed. When the PSC announced their decision approving CHC Commissioner Mike Huebsch told us we had better get used to transmission lines because more are coming. In Chapter 4 you acknowledge this problem. You note the scenic quality of the Driftless landscape. You note that the CHC corridor would provide an opportunity for new electrical construction in the future. You acknowledge that CHC will adversely affect scenery and that subsequent electrical infrastructure will make matters even worse. You should have taken your observations to their logical conclusion and stated that we should not allow the destructive process to begin.	Comment noted.
Driftless Defenders	D'Angelo	DECI13	Cardinal-Hickory Creek should NOT be built.	Comment noted.
Driftless Defenders	D'Angelo	EDIT	The final EIS is greatly expanded over the draft EIS. Frankly, I cannot tell if this is an improvement because the document continues to be almost impossible to read. For something so cumbersome a very basic help would have been to include a Table of Contents at the beginning of each Volume	A table of contents was provided for each volume of the FEIS.

Organization	Commenter Last Name	Comment Code(s)	Comment on FEIS	Agency Response to Comment
Driftless Defenders	D'Angelo	PUB01	I am disappointed to say that your responses to my comments are inadequate.	RUS and the Cooperating Agencies took all public comments received during scoping, the DEIS public review period, and the FEIS review period seriously and revised the EIS to address substantive public comments.
Driftless Defenders	D'Angelo	VEG02	PINE RELICTS Thank you for adding a description of pine relicts. You state that they are of conservation concern, State Rank S2. That means they are . . . imperiled in Wisconsin due to a restricted range, few populations or occurrences, steep declines, severe threats, or other factors (DNR website). Although they now are acknowledged in the FEIS I cannot find any information about how their value will be respected and protected. If the potential impacts are disclosed as you claim I cannot find it. Section 3 is dominated by wetlands, and pine relicts are buried in the forest category.	Pine relicts are a subset of the forest landcover class and potential impacts are presented at the landcover class level for a clear comparison of potential impacts between alternatives.
Driftless Defenders	D'Angelo	SOCIO03	TOURISM I stated: Your charts do not compare places before and after transmission lines are built so there is no data to tell how tourism income would be impacted. You refer me to 3.12 for potential impacts. I do not see any data or statistics, just your theories. Using New Hampshire as a measure of the impact, stating that the destinations were more important than deterrents, is inappropriate since New Hampshire has more historic sites than the Driftless Area. In New Hampshire destination and history are synonymous; in Southwest Wisconsin destination and natural are synonymous. You state that the impact will be minor in more developed landscapes. That completely misses the point about the Driftless: The beauty and allure of the Driftless for tourists is precisely that it has rural, not developed, landscapes. I do not believe your analysis.	Comment noted.
Driftless Defenders	D'Angelo	SOCIO03	PROPERTY VALUES I stated that property values are severely reduced in areas known for their scenic beauty. Even if the line does not cross a property, the value is reduced if the towers or lines can be seen from the property. I cant help but wonder why you did not investigate the reference I sent from a Wisconsinite land appraiser, Kurt Kielisch, who also was an expert witness before the PSC. His findings give a much more serious picture than the studies you chose. I do not agree with your conclusion that the impacts would be short term.	Comment noted. RUS revised the FEIS to include references and studies provided by commenters that were peer reviewed.
Driftless Defenders	D'Angelo	NEP02	THE QUESTION OF NEED FOR AND BENEFITS OF CHC You referred me to Chapter 1. Sounds like a combination of the CHC website and ATCs PR. Where is the independent analysis of need? THE GREATER COMMON GOOD I stated that I thought the purpose of an EIS should first be to assess if a project is needed and serves the common public good. This EIS uses ATCs statement of need and assumes Cardinal Hickory Creek is being built. Comment noted to me is not adequate for this very important consideration.	FEIS Chapter 1 describes the need for the C-HC Project, as well as the decisions facing the three Federal agencies that have received loan or permit applications for the C-HC Project.
Driftless Defenders	D'Angelo	DECI13	THE QUESTION OF BIAS I raised the issue of whether it was appropriate for the federal government to subcontract work to a company whose stated purpose is to support all types of electric transmission projects and that transmission project owners can benefit from SWCAs proficiency with federal regulations. Since you do not defend yourself but instead say Comment noted, I take that to mean guilty as charged.	SWCA is serving as an independent third-party NEPA consultant to support RUS and the other Federal agencies with developing the EIS and complying with NEPA. SWCA takes direction from the Federal agencies.
	Beckett	NEP02	The revised Environmental Impact Statement for the proposed Cardinal-Hickory Creek project does not demonstrate any need for the transmission line.	FEIS Chapter 1 describes the need for the C-HC Project, as well as the decisions facing the three Federal agencies that have received loan or permit applications for the C-HC Project.
	Beckett	WAT01	In Volume 3, Section 4.4 of the Environmental Impact Statement, the assessment provides only the most superficial description of the cumulative impacts on the natural environment. For instance, excavation for 80 to 100-foot deep foundations for the transmission towers will take place in various conditions that cross the Upper Mississippi River National Wildlife and Fish Refuge, fractured rock, wetlands, floodplains, farmland and small towns. Southwestern Wisconsin has a very serious problem with contaminated wells. Drilling and construction will only exacerbate water problems for private and municipal wells and streams in the area. Many wells in Iowa, Grant, and Lafayette Counties have high levels of chemical contamination traceable to pesticide use on farm fields and right-of-ways. American Transmission Company will continue use of such pesticides as Round-Up glyphosate and POEA/polyethoxylated tallow amine, known carcinogens	FEIS Section 3.5 discloses potential impacts to groundwater from the proposed C-HC Project. In accordance with its environmental commitments, the Utilities will employ a Certified Pesticide Applicator for all herbicide applications within the C-HC Project. The Certified Pesticide Applicators will only use herbicides registered and labeled by the USEPA and will follow all herbicide product label requirements. Herbicides approved for use in wetland and aquatic environments will be used in accordance with label requirements, as conditions warrant.
	Beckett	EFF02	Section 4.4.10 admits that building the Cardinal-Hickory Creek line will adversely affect the beauty of the Driftless Area, impact the cultural and historic resources, damage the floodplain and wetlands. This, in a time when we have unprecedented and increasingly damaging rains and flooding from weather extremes and climate change.	Comment noted.
	Beckett	NEP02	There is no need for CHC. Microgrids for local renewable energy generation exist or are under construction to deliver solar and wind energy to electricity customers in Wisconsin. Why approve the construction of a giant transmission line that will have a permanent negative impact on irreplaceable ecosystems, dwindling bird populations, disappearing wildlife refuges, places of historical and archaeological significance, farms and small towns? We do not need outdated, inefficient and extremely expensive 345 kV long-distance transmission lines when there are sensible, cheaper, cleaner and environmentally-sound alternatives readily available today	FEIS Section 2.2.2 explains the rationale for dismissing non-transmission alternatives from detailed analysis.
	Lind	PUB01	I previously submitted comments to the Draft Federal EIS. As indicated in the final EIS, two of those comments were "noted", but they were not adequately addressed, if at all.	RUS and the Cooperating Agencies took all public comments received during scoping, the DEIS public review period, and the FEIS review period seriously and revised the EIS to address substantive public comments.
	Lind	ALT04	In particular, I commented that the EIS is flawed because it fails to consider the alternatives to the construction of the transmission line in combination.The document insists that each alternative taken on its own meet the purported needs. This is ridiculous and not a solution that anyone would propose. Rather, a combination of alternatives would be used to satisfy any needs that have merit. Once the document set the alternatives up for failure it then avoided the required detailed analysis of alternatives. Failure to consider the alternatives in combination and to include this type of analysis makes the Final EIS wholly inadequate.	FEIS Section 1.5 describes the purpose of and need for Federal action. The Federal agencies must consider reasonable alternatives when considering their Federal decision. The Federal EIS considers alternatives that are ripe for Federal consideration. What that means is that a proposal has been made for those alternatives or that it is reasonably foreseeable that they could be implemented in a time frame that would meet the need for the Federal action. FEIS Section 2.2.2 provides the rationale for not carrying forward non-transmission, lower-voltage, and underground alternatives for detailed analysis.

Organization	Commenter Last Name	Comment Code(s)	Comment on FEIS	Agency Response to Comment
	Lind	NEP02	In addition, the document makes no real attempt to measure the purported need for the line. Is it a nice to have or a dire need? This is the last of many projects modeled by MISO a decade ago. Technology and times have changed. Demand is flat. Without having some measure of the need it is impossible to compare it with the economic and environmental cost of the line. As a result, the document does little to enable an informed decision regarding the issuance of a loan or permits in connection with the destructive project.	RUS has determined that the purpose of and need for the Federal action are supported (see EIS, Chapter 1). The State of Wisconsin approved the project through the PSCW and WDNR EIS process (PSCW 2019b). The Federal EIS does not consider alternatives in the same manner as the PSCW or Iowa Utility Board (IUB). The Federal agencies are required to comply with NEPA. As stated in NEPA regulations 40 CFR 1502.23, "For purposes of complying with the Act, the weighing of the merits and drawbacks of the various alternatives need not be displayed in a monetary cost-benefit analysis and should not be when there are important qualitative considerations." As discussed in EIS Chapter 2, Section 2.2.2, non-transmission and low-voltage alternatives are not responsive to the applications to which the Federal agencies are responding, nor do they meet the six-point purpose and need described in EIS Chapter 1. The Federal EIS considers alternatives that are ripe for Federal consideration. What that means is that a proposal has been made for those alternatives or that it is reasonably foreseeable that they could be implemented in a time frame that would meet the need for the Federal action.
	Campbell	SOCIO07	I regard this power line as an egregious invasion of our Driftless Area way of life. I cannot stop thinking about how the power line will impact landowners and tourists. The Driftless Area has a unique geologic history, reflecting geological processes active for millions of years in the topography and the rock layers exposed. The power line is an antiquated method of carrying energy most of which comes from carbon-based fuels, sources guaranteed to be with us for years to come. I feel that a serious environmental injury to our planet will be committed if this line is authorized. Psychologically, the mental damage to the landowners, and others, will be pervasive and continuous. What more environmental consideration can be offered than its personal effects?	Comment noted.
	Luecke	LAND01	Why do you think that we have Wildlife Preservation areas, public parks, forests, and green spaces? We want and need a beautiful world where all of our plant and animal species can be free to live and thrive. This is true for the Human animal as well. We need peace and serenity in our lives as much as possible for our MENTAL HEALTH. I choose to live in a peaceful rural community.	Comment noted. FEIS Section 3.10 discloses potential impacts to conservation, recreation, and natural areas (including public parks) from the proposed C-HC Project.
	Luecke	VIS01	I choose NOT to live in an industrial area where wires and towers and concrete dominate the landscape. AESTHETICS DOES MATTER!!! The 100 to 125 mile pathway of the proposed towers will not be pretty.	FEIS Section 3.11 discloses potential impacts to visual quality and aesthetics from the proposed C-HC Project.
	Luecke	HAS01	The trouble is---IF these towers are built, more will follow, as in all of the high voltage wire tower corridors---causing more stray voltage hazards and more mental health risks.	Comment noted.
	Luecke	DECI13	Imagine a corridor of towers crossing the Driftless Area of Wisconsin and steaming across the Mississippi River invading the Wildlife Preserve. We have to stop these electric transmission MONSTERS before it is too late. Be aware that the PSC staff, after reviewing all of the comment entries, advised the PSC commissioners to see the benefits of upgrading current lines at much lower costs. But the commissioners ignored their staffs findings and voted with the Big Money. They don't live here. They DO NOT understand. They made the wrong decision, not considering the health risks for the residents of this area.	Comment noted.
	Russell	WLDLF04	I have reviewed the Final Environmental Impact Statement for the CHC project (October 2019) and noted the following: 1. In Volume II, Chapter 3, Section 3.4.2.3, Impacts Common to All Action Alternatives the FEIS claims that the risk of avian collisions and electrocutions would be the same for all project alternatives; however, this does not take into account the fact that 345 kV power lines are high enough to result in more impacts by endangered species and species of special concern, such as the formerly endangered bald eagle. Why were the risks not quantified specifically based on the flight patterns/elevations of local and migratory birds with respect to the different heights of lines with different voltages? How many excess bald eagle (or other avian species) deaths are acceptable?	Due to uncertainty and the speculative nature of the number of bird collisions that could result from the C-HC Project, RUS opted to disclose potential impacts from bird collision in a qualitative manner (see FEIS Sections 3.4 and 3.14). This approach is appropriate to satisfy the hard look required by NEPA, especially since all six action alternatives would cross the Mississippi River in one of two locations that are within 1 mile of one another.
	Russell	HAS01	2. In Volume II, Chapter 3, Section 3.13.2.3.1, Electric and Magnetic Fields, why was there no quantitative analysis of how induced voltages could adversely impact persons, livestock, and wildlife? Thank you for considering my concerns.	Induced voltages and stray voltage are discussed in FEIS Section 3.13.
	Citron	HAS01	I want to comment the Final EISs response to my comments on the draft EIS. My initial comments are found in Volume 4, p. 67; the reports response is found in 3.13.1.2 (Volume 3, page 457). My initial comments addressed the documented risks and vulnerabilities that high voltage transmission lines like the proposed Cardinal-Hickory Creek have from both climate change and hacking. The final Federal EIS report responds to my comments in the most inadequate way. For example, the Final EIS states that NERC Critical Infrastructure Protection Standards require utilities to protect against hacking and that the utilities that will build C-HC comply with these standards. The problem is that these regulations, along with compliance, have not prevented hacking to occur in the recent past and will not prevent hacking in the future. This is because the hacking occurs through the backdoor of suppliers and sub-contractors and not directly against the utilities themselves. The reports response to this issue shows a lack of research and understanding of real-life hacking. I point you to an in-depth investigative report by the Wall Street Journal, Americas Electric Grid has a Vulnerable Back Doorand Russia Walked Through It, that explains why the NERC Critical Infrastructure Protection standards are insufficient. The article documents how Russia hacked into companies that supply work and components to the grid, circumventing any security measure the utilities used. the hack reveals a glaring vulnerability at the heart of the countrys electric system. Rather than strike the utilities head on, the hackers went after the systems unprotected underbellyhundreds of contractors and subcontractors like All-Ways who had no reason to be on high alert against foreign agents. From these tiny footholds, the hackers worked their way up the supply chain. Some experts believe two dozen or more utilities ultimately were breached. The schemes success came less from its technical prowessthough the attackers did use some clever tacticsthan in how it exploited trusted business relationships using impersonation and trickery. Wall Street Journal, January 10, 2019. Here is a link to the full investigative report. Ive also attached it to this email. https://www.wsj.com/articles/americas-electric-grid-has-a-vulnerable-back-doorand-russia-walked-through-it-11547137112	Comment noted.

Organization	Commenter Last Name	Comment Code(s)	Comment on FEIS	Agency Response to Comment
	Citron	AIR04	As for the effect of climate change on high voltage transmission lines, I point to California where destructive wild fires were sparked by high voltage transmission lines and the solution to prevent further fires required massive blackouts to over a million people. There has been a lot coverage of the transmission line debacle in California so I will cite only one article here that emphasizes the importance of non-transmission alternatives in our changing climate (if clicking on the link does not work, you can copy and past the URL into a brower): https://www.nytimes.com/2019/10/12/business/power-blackouts-california-microgrids.html?searchResultPosition=1 C-CH, like the high voltage lines PG&E uses in California, will not be insulated. Fires are sparked when lines droop and hit other lines, or are blown down in winds. As with the response of the EIS to hacking, the response to my concerns on climate change are likewise grossly inadequate. The severe weather events in Wisconsin analyzed by a National Weather Service study from 1980-2006 (p. 457 of the EIS) are a bad prediction of future weather. The data set is wrong: it is over a decade old at a time that climate change is rapidly and radically changing weather patterns. As an example, I cite the rainfall in Wisconsin in 2019, where the National Weather Service says that precipitation totals were 150 to 200 percent of normal. C-CH is scheduled to last forty years. It is critical that current data, along with future predictions of the effects of climate change on weather, are used in this report. If appropriate data is not used in the EIS, the legacy of C-CH will be that of destruction, different in execution but similar in scope to what were now seeing in California. I am disappointed in the disingenuous responses to my comments, which seem to simply prop up the claims of the utilities rather then be a serious environmental analysis.	Comment noted. FEIS Section 3.13 explains that the C-HC Project would be designed in accordance with NESC requirements that take into account severe weather events in this region of the country, including high winds and ice. NESC standards include requirements for line clearances and sag due to ice loading, high-temperature loading, or high-speed winds; conductor tension addressing high wind speeds; strength and loading rules to address high winds; as well as other measures to address severe weather events. FEIS Section 3.13 also address potential risk of fires.
	Luecke	DECI13	Once again big business is trying to take away the rights of the average person by going through a federal Refuge that was promised for the citizens of this country not to be disturbed and they feel that they have the right to do what they want to do. Step up and stop them	Comment noted.
	Breslow	DECI13	To Whom this may concern: I wish to state my opposition to the construction of the Cardinal Hickory Creek Electric Transmission line proposed by ATC. My comments will address 3 areas; 1. Not needed; 2. Environmental and community impact; 3. Economic and quality of life impact	Comment noted. The FEIS for the proposed C-HC Project provides a comprehensive and thorough disclosure of potential impacts to the human and natural environment. FEIS Chapter 1 describes the need for the C-HC Project, as well as the decisions facing the three Federal agencies that have received loan or permit applications for the C-HC Project.
	Breslow	NEP02	1. Not Needed Based on current estimates of energy needs, especially in Wisconsin, the electricity generated by traditional fuels such as coal and natural gas are declining. Renewable sources such as solar and wind are replacing those traditional carbon-based fuels. ATC has not made a compelling case for additional high voltage transmission lines. ATC argues that the lines are needed to carry the power generated by solar and wind in Iowa County, Wisconsin. The plan to build new high voltage transmission has been in the making for a long time. These plans pre-dated the emergence of new sources of power in Iowa County. Now, the company is stating that the new lines are needed to carry this power to consumers. Interesting coincidence. The initial plan by ATC was to carry power generated by carbonbased fuels to other parts of the country. The power was never intended for Wisconsin. To say otherwise, would be disingenuous. I cannot buy the line that the high voltage lines are in the best interest of the public. Rather than building new lines to reinforce and protect the national power grid, an upgrade to existing infrastructure will have a smaller footprint and less of an impact as described below.	RUS has determined that the purpose and need for the Federal action are supported (see EIS, Chapter 1). The State of Wisconsin approved the project through the PSCW and WDNR EIS process (PSCW 2019b). The Federal EIS does not consider alternatives in the same manner as the PSCW or IUB. The Federal agencies are required to comply with NEPA. As stated in NEPA regulations 40 CFR 1502.23, "For purposes of complying with the Act, the weighing of the merits and drawbacks of the various alternatives need not be displayed in a monetary cost-benefit analysis and should not be when there are important qualitative considerations." As discussed in EIS Chapter 2, Section 2.2.2, non-transmission and low-voltage alternatives are not responsive to the applications to which the Federal agencies are responding, nor do they meet the six-point purpose and need described in EIS Chapter 1. The Federal EIS considers alternatives that are ripe for Federal consideration. What that means is that a proposal has been made for those alternatives or that it is reasonably foreseeable that they could be implemented in a time frame that would meet the need for the Federal action.
	Breslow	LAND01	2. Environmental and Community Impact There must be a balance between progress and the health of the environment and the communities affected by the project. The Cardinal Hickory Creek transmission line will have an immediate and long term impact on the environment. The planned route will cross the Mississippi River and weave its way through a sensitive ecosystem of grasslands and wetlands, including the driftless area that has its origins beginning with the ice age and the retreat of the glaciers. The building of high voltage lines by a corporation motivated by profit over the well-being of the environment will result in irreparable damage. I have observed the building of high voltage lines. Despite the building of wooden "roads" to protect the construction route, the clearing that is necessary to build the towers forever changes the landscape and the natural beauty of the area through which the line is built. To what end?	Comment noted. Potential adverse impacts from the proposed C-HC Project are disclosed in FEIS Chapters 3 and 4.
	Breslow	VIS01	The visual impact of the towers is difficult to describe. Frankly, they are ugly and detract from the community and the properties that are changed in their wake.	FEIS Section 3.11 discloses potential impacts to visual quality and aesthetics from the proposed C-HC Project.
	Breslow	SOCIO03	3. Economic and quality of life impact The driftless area attracts visitors because of its natural beauty and recreational opportunities such as Governor Dodge State Park. Many individuals in the driftless region make their livelihood from those visitors. An assault on the landscape changing the visual attributes of the region will impact adversely on those individuals. If you are a prospective visitor, which would you prefer, high voltage towers or rolling hills? The impact on production agriculture has also been well documented.	FEIS Section 3.12 discloses the potential impacts to tourism from the proposed C-HC Project. FEIS Section 3.11 discloses potential impacts to visual quality and aesthetics. FEIS Section 3.10 discloses potential impacts to land use, including agriculture and recreation.
	Breslow	HAS01	Stray voltage has been an issue for as long as I can remember. It is generally well accepted that the risk of stray voltage does increase in the presence of high voltage lines. Of course, there are the deniers that stray voltage affects animals and for that matter, humans. There are public health considerations. While there may not be have been a requirement that ATC assess the impact on Quality of Life Years, there are many public health studies that incorporate this metric to assess threats to public health.	The topic of stray voltage is discussed in FEIS Section 3.13.
	Breslow	DECI13	Finally, it irks me to no end that I will see rate hikes on my electric bill to pay for the line and receive little to no benefit from this project. There is so much infrastructure in the US, including bridges and highways in Wisconsin, that desperately need attention I would rather be taxed for these local improvements than for power generation that fails to serve me. I consider myself a rational and open minded thinker. When reviewing the environmental impact statement submitted by ATC, it does not surprise me that there is all sorts of justification for the construction of the Cardinal-Hickory Creek transmission line and a staunch defense for the potential impact on the environment. That said, I firmly believe that ATC is motivated by one thing and that is the bottom line. It is certainly not altruism. Yes, businesses should make money, but they should not be allowed to do so when a project poses a systemic threat to the public. In fact, the cynical side of me causes me to wonder if the company's support for public television in Wisconsin is a public relations effort to put lipstick on a pig. Oh, my! I would ask that the federal government deny ATC the necessary permissions (approvals) to move forward with the Cardinal-Hickory Creek Transmission line.	Comment noted.

Organization	Commenter Last Name	Comment Code(s)	Comment on FEIS	Agency Response to Comment
	Michmerhuizen	WAT02	This email follows up on my comments to the Draft Federal EIS. Those initial comments are noted on page F-195 of this Final EIS. The Final EIS response to my comments reflects regulations and best practices that ATC will use in building and maintaining Ch-CH. However, those practices and regulations have little relationship to what actually happens on the ground in our communities. While it is good that landowners can refuse to have herbicides applied to ROWs on their property that is insufficient to protect the groundwater of Southwest Wisconsin from further contamination and toxicity. First, groundwater does not adhere to property boundaries; water flows from property to property both above and below the ground. Applying herbicides to one parcel of land can easily contaminate the well of a landowner down the line who has refused herbicide application on their land.	In accordance with its environmental commitments, the Utilities will employ a Certified Pesticide Applicator for all herbicide applications within the C-HC Project. The Certified Pesticide Applicators will only use herbicides registered and labeled by the USEPA and will follow all herbicide product label requirements. Herbicides approved for use in wetland and aquatic environments will be used in accordance with label requirements, as conditions warrant. Groundwater contamination from the use of herbicides to maintain the C-HC Project ROW is not expected.
	Michmerhuizen	WAT02	Second, ATC has a history of sneaky practices to get landowners to sign off on herbicide applications. In Seymour, Wisconsin, ATC hung placards on the doorknobs of ROW property owners to alert them of ATCs tree trimming. ATC asked landowners to sign the placards indicating they were aware of the trimming. On the backside of the placard, in very small print, it was noted that a landowners signature also gave permission for ATC to use herbicides on the ROW. This is a well-known trick used by credit card companies and business to pretend transparency while actually hiding controversial practices. Southwest Wisconsin already has documented chemical toxicities in the ground water created by the very herbicides that are legally permitted for ATC to use. Our soils are shallow and they sit on very porous limestone rock. This mean that herbicides that might be okay to use in other parts of the state definitely seep into the groundwater of Southwest Wisconsin.	In accordance with its environmental commitments, the Utilities will employ a Certified Pesticide Applicator for all herbicide applications within the C-HC Project. The Certified Pesticide Applicators will only use herbicides registered and labeled by the USEPA and will follow all herbicide product label requirements. Herbicides approved for use in wetland and aquatic environments will be used in accordance with label requirements, as conditions warrant. Groundwater contamination from the use of herbicides to maintain the C-HC Project ROW is not expected.
	Michmerhuizen	WAT02	It is unsettling that an environmental impact statement does not take the specific geology of the region into consideration. Wells are currently being tested by governments of Lafayette, Grant, and Iowa counties as part of the Southwest Wisconsin Groundwater and Geological Study (SWIGG). The fact that the SWIGG study, and its results, is not even acknowledged in the EIS leads me to believe that the report is not interested in factual data as a basis for its recommendations. It also is a strong indication that the EIS data collection and analysis lacks depth and thoroughness	FEIS Section 3.5 discloses potential impacts to water resources and quality, including groundwater and groundwater flow in karst features.
	Anderson	LAND02	I would like to express my concern that the Final EIS severely downplays the permanent damage that will occur to some of the best cropland soils in the state of Wisconsin. This soil damage will affect farm incomes, profitability, and economic stability in the area for decades to come. The past five years have seen record rainfalls over the farmlands of Southwestern Wisconsin. Most of that rainfall comes in the form of deluges that deliver inches of rain in very short periods of time; one to two hours at most. This recent weather pattern has left large areas of very wet soils, in areas that have not previously been considered to be wet lands. In fact, the farmers of Southwestern Wisconsin are having difficulty harvesting crops this year, because they cant put their harvest equipment onto wet soils without permanently damaging the growing potential of the soil for years to come. The final EIS states in Chapter 3 that wet soils are more easily damaged and more difficult to repair. When one considers the current wet state of soils that have suffered under the past five years of heavy precipitation throughout Southwestern Wisconsin, I believe that the final EIS severely underestimates the amount of productive ag land that will be permanently damaged and will become nonproductive, or greatly unproductive, cropland if this line is constructed.	FEIS Section 3.10 discloses the potential impacts to agricultural lands, and Section 3.12 discloses the potential impacts to the agricultural economy.
	Anderson	SOCIO03	This will become a devastating economic loss for this region that in the long term, cannot be made up by easement payments. This soil damage will result in lost cropland, lost land values at times of sale, and lost tax base for townships, counties, and the state. This will eventually trickle down to future generations of rural Wisconsin and create a rural utility wasteland where the backbone of our economy, our farms, are no longer viable to support our communities and our way of life. Rural farms and people have long been supportive of providing land for electric infrastructure to power our nation, However, to be asked to make these huge sacrifices of our crop lands for a line that has not been proven to be needed, and has not had adequate exploration of potentially less expensive, and definitely more cropland friendly non-transmission alternatives, is a direct blow to our livelihoods, farms, and economies of our corner of the state. It is my opinion that the final EIS has not adequately explored or addressed these crop land and economic concerns of rural Southwestern Wisconsin.	Comment noted.
	Baum	VEG04	Wow! You helped me make the unique argument for the 540 acres of the Ridgeway Pine Relict State Natural Area. You inspired what I should add in my EIS from the Ridgeway Pine Relict State Natural Area which almost borders the proposed line and currently has a pristine, well functioning major wetland. It has been important with its wetland to act as a sponge for the heavy precipitation throughout Southwestern Wisconsin. Without its sponging wetland, even more of the heavy rains would have contributed to raging flooding of farm lands. I will also add that the ongoing disturbance so close to this wetland from ATC transmission line construction, continuing tree cutting, spraying pesticides to rid perennial plants, bushes and trees, drift of such pesticides, and storm water drainage during construction will contribute to the pollution, erosion and loss of nearby soil. These same factors will also contribute to degrading this wetland and any others in the area. Wetlands are not as common in Driftless SW WI as they are in other parts of Wisconsin so they need to be protected.	FEIS Section 3.3 discloses the potential impacts to wetlands from the proposed C-HC Project.
	Baum	VEG03 VEG04	It is only with the decades of good conservation practices of local family farmers and the recent hard work of volunteers who spend hours removing woody invasives and pull Garlic mustard near to its wetland that has helped maintain a good working wetland. Wetland plants and soils work around the clock to cleanse both surface and groundwater which helps to protect public health and native species. Some pollutants are held for years in the roots of native wetland plants . But too much pollution makes them unable to act as the needed sponge. It is estimated that almost half of Wisconsin's original 10 million acres of wetland type areas are gone by development and/or invasive species. Reed canary grass is an invasive species that dominates almost half a million acres of Wisconsin's wetlands. But no Reed Canary grass has been found in the Ridgeway Pine Relict State natural Area... yet. Instead we have American germander, winterberry holly, Joe-pye-weed, bog rosemary, Turtlehead, Blue lobelia, Palm Sedge, Sensitive fern, Bottlebrush sedge, fox sedge, marsh marigold, Skunk cabbage, etc and jewelweed. This is probably because it is protected on all sides by deep cliffs, called the gulch so roads, humans and mammals do not so easily carry invasives and pollutants. Invasive species are considered by many as the greatest threat to the long-term health and sustainability of Wisconsin's wetlands.	Comment noted.

Organization	Commenter Last Name	Comment Code(s)	Comment on FEIS	Agency Response to Comment
	Kritz	NEP02	The RUS final report is a much-improved document over the draft report that the RUS issued in early 2019. The report lays out the applicants (ATC, ITC, Dairyland) proposed plans for building a 100-125 mile, high-voltage (345-kV) transmission line from Middleton, WI, to Dubuque, Iowa that is called the Cardinal-Hickory Creek line (CHC). The CHC will run through the National Wildlife and Fish Refuge (NWFR) which lies along the Mississippi River in Wisconsin and Iowa and across the River. The Report discusses ad nauseam the background, stages and process that the applicants went through to develop the proposal to build the line. The Report also has sections discussing why the applicants think there is a need for the line, the alternative routes considered, environmental consequences of building the CHC line, and construction methods that will be used to mitigate negative impacts. Unfortunately, the four volume, 618-page report says almost nothing about the need for the line and the costs and benefits that the line will have for Wisconsin residents. In Section 1.4 (Vol. 1, p. 11) the Report lists six reasons why the applicants think the line is needed, namely to (a) increase reliability of the regional system/grid, (b) alleviate congestion in the regional grid, (c) expand access to the regional grid of additional generation capacity, (d) increase interstate transferability of energy, and (e) reduce power losses and increase transmission efficiency, and (f) enhance the national transmission system. Additional information in Section 1.4 makes it clear that regional and national concerns rather than State of Wisconsin interests have driven the CHC planning process. Planning for the CHC line started with the establishment by FERC (the Federal Energy Regulatory Commission) in 2005/2006 of RTOs (Regional Transmission Organizations) to promote efficiency and reliability in the national electric transmission grid. MISO (Midcontinent Independent System Operator) was set up as the Midwest RTO. Shortly after it was established in 2008, MISO launched a review of transmission needs in the Midwest and in 2011 it approved 17 projects (MVPs) in 13 member states that its members (largely transmission and utility companies) decided were needed. The CHC project is the last of the 17 projects to be built, which placed considerable pressure on the Wisconsin Public Service Commission (WPSC) to approve this project. Several issues arise from the MISO planning process, which brings us to the concerns we have today. The first is that much has changed in the electricity generation field since MISO approved building the 17 projects. In the past 10 years, energy demand in WI has not risen at the pace MISO estimated that it would during its planning process (2008-2011) because technology changes have increased the energy efficiency of new appliances, automobiles, machines, etc. Another change since 2010/2011 is renewable energy generated locally, which has become a more important factor in the energy field. Decreasing costs of installing renewable wind and solar has encouraged and will continue to encourage consumers to switch to locally or community-based energy-based systems. In addition, there are growing civic concerns about whether relying on energy generated miles away and transmitted via high voltage transmission lines is the appropriate direction to go given the unsettled issues regarding the impacts those lines have on the environment.	The C-HC Project has been independently modeled and verified by multiple entities, including Midcontinent Independent System Operator, Inc. (MISO), which used a planning process approved by FERC. The PSCW has independently verified the modeling for the C-HC Project, and the PSCW approved the project. The IUB is currently evaluating the project. RUS and the other Federal agencies have considered all information, including public comments, when analyzing the C-HC Project to comply with NEPA. This is explained in the FEIS.
	Kritz	DECI01	Unfortunately, MISO has a rigid planning process that remains wedded to decisions taken in 2011 and that is not open to discussion with local residents, governments and organizations in WI who are opposed to the CHC line and who have raised legitimate issues and will have to see and bear the impacts the line will have on our environment daily because this is where we live.	Comment noted.
	Kritz	VIS01	The second problem that arises from the MISO planning process is the fact that of the 17 lines, only the Cardinal Hickory line runs through the Driftless region which has a totally different geology and topography than other parts of the Midwest that is not found elsewhere in the USA or world. The other 16 MISO projects all run across terrains that were flattened by the four glaciers that covered the Midwest at different historic points but not the Driftless which is only located in Southwest WI, NE Iowa, and SE Minnesota. In Sections 3.2 and 3.3 (Volume 3) the RUS Report discusses the unique geology, topography, physical features, soil, plants and wildlife in the Driftless region, stating: The surface geologic features of the analysis area, including the ridges and valleys present, are a result of millions of years of erosion and drainage to the Mississippi River. The analysis area is within the Driftless Area, which is distinguished by hilly uplands and plateaus deeply dissected by streams. The Driftless Area is also characterized by the lack of glacial drift deposits (often described as till), meaning the area was not covered by ice sheets in the last glacial period. (3.2.1.1., p. 140, Volume 3) Although the RUS Report acknowledges the unique geology and topography of the Driftless Region and describes it in some detail in parts of Volume 3 and it is aware that the line will have a major impact on the visual quality and aesthetics of the Driftless Region, it keeps returning to the same mantra, namely that the public good that will be served by the CHC line outweighs any potential damage that might be done to the Driftless Region and posterity. The RUS makes its position clear in Volume 3, Chapter 4, where it states: "Any projects that would result in modification of the landscapesuch as transportation improvement projects, new energy development, new or rebuilt transmission lines, and urban development projects would contribute to the cumulative adverse impacts to visual quality and aesthetics. These developments, when added to the direct effects of the proposed C-HC Project, would incrementally convert the scenic quality of the natural landscapes into a more developed and industrialized landscape that would adversely affect scenery, and sensitive viewers over time." (quoted from Vol 3, Chapter 4, Section 4.4.10) The opponents of the CHC line disagree that the visual quality and aesthetics of the Driftless should be sacrificed in order to build the line. We do not now have and do not want to convert the scenic quality of the natural landscape into a more developed and industrialized landscape that would adversely affect scenery, and sensitive viewers over time.	Comment noted.
	Kritz	PUB01	The opposition to the CHC line does not just consist of a few NIMBYs who do not want the line. We attended most of the hearings at which WI residents had the opportunity to comment on the line and never heard a single person speak in favor of the line at any of those meetings. Nor does the Report indicate that there was local demand for the CHC, which it probably would have done if it existed. The Report (Section 1.7, Vol 1), describes the opportunities offered to the public to comment and addresses specific concerns people raised in comment letters (Vol. 4), Appendix F. The Report does, not, however, tabulate the number of comments submitted in support versus opposition to the CHC but we suspect that the vast majority of them were in opposition.	Comment noted. All public comments received for the Draft EIS were disclosed in FEIS Appendix F. The NEPA process is intended to help public officials make decisions that are based on understanding of environmental consequences. Tallying comments that are in favor or in opposition to a proposed project is one of the purposes of NEPA or public involvement.
	Kritz	PUB01	My husband and I did submit comments to the RUS and our letters (Kritz and Gurak) are supposedly responded to in Appendix F. However, those responses consisted of Comment noted or See Section __ which discusses that point or Additional information was added to the Report in Section.	RUS and the Cooperating Agencies took all public comments received during scoping, the DEIS public review period, and the FEIS review period seriously and revised the EIS to address substantive public comments.

Organization	Commenter Last Name	Comment Code(s)	Comment on FEIS	Agency Response to Comment
	Kritz	PUB01	Also minimized in the RUS Report is the number of local governments and organizations that passed resolutions opposing the line or asking the WPSC to require applicants to address specific questions before it reached a decision. One request made by most of the local governments along the CHC route was that the Applicants needed to provide more information on the costs and benefits of the line. In Table 4.4 (Vol 4, p. F-12) the Report list 7 local governments that submitted comments. In reality, eight townships,1 two counties (Iowa and Dane), four villages,2 three school districts (Mount Horeb, Barneveld, Dodgeville), and 13 NGOs3 passed resolutions opposing the CHC. Eighteen townships passed resolutions asking ATC for further information that would justify the need for the CHC line and expressing concerns about the impact the line would have on the Driftless Region.4 In addition, all the WI state senators and assemblyman in Iowa and Grant counties wrote letters expressing concerns over the proposed CHC line. In the DEIS Public Comment Report (Vol. 4, Appendix F) there are NO responses to the comments made by the local governments (Table 4-4) or the NGOs (Table 4- 5).	Comment noted. All public comments received for the Draft EIS were disclosed in FEIS Appendix F. RUS, USFWS, and USACE developed responses to all public comments received, including those comments submitted by non-governmental organizations and local governments. The commenter is referred to FEIS Appendix F for all public comments and Federal agency responses.
	Kritz	PUB01	The Report undoubtedly ignored the comments submitted to the WPSC rather than directly to the RUS (DEIS) but in so doing, it ignores or minimizes the massive opposition and concerns that 1 Wyoming, Dodgeville, Springdale, Belmont, Wingville, Brigham, Lima, and Arena. 2 Spring Green, Mt. Horeb, Montford, and Barneveld 3 Capital Region Advocacy Network for Environmental Sustainability, Friends of Gov. Dodge State Park, Friendship Center, Harry and Laura Nohr Trout Unlimited Chapter, Iowa County Recreation and Prairie Restoration, Madison Audubon Society, Sustain Iowa County, Driftless Area Land Conservancy, Save Our Unique Lands),SOUL), Friends of Blue Mounds State Park, Black Earth Creek Watershed Association, Folklore Village, and WI Wildlife Foundation. 4 Arena, Belmont, Brigham, Clyde, Crawford, Cross Plains, Dodgeville, Jackson, Juneau, La Crosse, Lima, Monroe, Montford, Springdale, Vernon, Vermont, Wingville, and Wyoming. Richland, Sauk, Iowa, and Dane. the CHC has generated in Southwest Wisconsin. The Report completely ignores the issues raised by WI county, village/city, township governments and civic organizations.	Comment noted. All public comments received for the Draft EIS were disclosed in FEIS Appendix F. RUS, USFWS, and USACE developed responses to all public comments received, including those comments submitted by non-governmental organizations and local governments. The commenter is referred to FEIS Appendix F for all public comments and Federal agency responses.
	Kritz	CUL01	Section 3.9 (Vol 2, p.280+), which discusses cultural and archaeological issues raised by the CHC line illustrates further the dismissive tone and lack of response in the RUS report to legitimate issues. The Report states that there are 37 previously recorded archaeological sites or cemeteries within the area for potential physical impacts (p. 283), ten of which are prehistoric Indian mound sites. The report does not list where these Indian mound sites are located because disclosing their location could lead to their disturbance by the public, but it does state (page 289) that some of these mounds lie within the CHC impact area. Below is a map of Indian Mounds in Wisconsin which shows a high concentration of mounds on both sides of the Mississippi River and in the Upper Mississippi Wildlife Refuge. The map was scanned from the book Indian Mounds of Wisconsin, 2nd Edition, Madison: University of WI Press, co-authored by Robert Birmingham and Amy Rosebrough (p. 120). Birmingham used to be the Archaeologist for the State of WI but is now retired. Rosebrough currently works as the Archaeologist at the Wisconsin State Historical Society. Elsewhere in the book, page 220, the book describes mounds in the Cassville Bluffs area, Nelson Dewey State Park, and Wyalusing State Park. Robert Watson, who did several of the archaeological surveys for the applicants, stated in a March 26, 2018 memo to Amy Lee, ATC, that: The review of WHPD (WI Historic Preservation Database) has determined that 24 previously recorded archaeological or cemetery/burial sites are included within the 150 ft wide APE (Area of Potential Effects) of the proposed route segments. Portions of both prehistoric and historic archaeological sites fall within the APE. Prehistoric sites include isolated finds, lithic scatters and workshops, habitation sites, and mound groups and earthworks. Historic sites include farmstead and habitation sites, mining related sites, cemeteries, and historic trash scatters. Portions of some of the previously recorded archaeological or cemetery/burial within the APE have been investigated to assess potential project effects. Archaeological survey of unsurveyed portions of all sites within the final project alignment, temporary workspaces, or access routes is recommended to more fully assess potential project effects. (PSC REF#: 341912)	FEIS Section 3.10 and 5.4 explain that a Programmatic Agreement (PA) was developed for the C-HC Project to resolve the potential adverse effects of the undertaking on historic properties. The Final PA is provided in FEIS Appendix H. The PA explains the process for identification and evaluation of historic properties that may be affected by the C-HC Project.
	Kritz	CUL01	Unfortunately, the Report does not make it clear whether additional surveys of Cultural and Historic Resources will be carried out. On page 283 it states that Additional cultural resources surveys may be required but on page 289 it states that A cultural resources survey of all proposed laydown yards in consultation with the Iowa and/or Wisconsin SHPOs (State Historic Preservation Office) would be required (Vol. 2, Section 3.9). The RUS does seem aware that there may be cultural and historic resources in the APE. On page 314 the Report states that: In addition, as a comprehensive cultural resources survey has not been conducted, any number of unknown resources may be present within the area analyzed for potential physical impacts. Prior to construction, RUS would attempt to identify and evaluate additional resources within the area analyzed for potential physical impacts. If, through consultation with the Iowa and/or Wisconsin SHPOs, RUS, the Utilities, and affected tribal groups, measures cannot be taken to avoid impacts to the characteristics that qualify any identified resource for inclusion in the NRHP, that may constitute a major impact. (3.9.2.9.2) Before giving its approval and funding to the CHC project, the RUS should require that the applicants carry out a survey of cultural and historic resources in the APE. We are concerned that construction of the line may start and then uncover cultural and historic resources. On pages 289-290, mound sites are mentioned that may be eligible for the NRHP (National Registry of Historic Places) according to Stanley and Stanley 1988, Prehistoric Mounds of the Quad State Region of the Upper Mississippi Valley. These sites should be evaluated prior to construction.	FEIS Section 3.10 and 5.4 explain that a Programmatic Agreement (PA) was developed for the C-HC Project to resolve the potential adverse effects of the undertaking on historic properties. The Final PA is provided in FEIS Appendix H. The PA explains the process for identification and evaluation of historic properties that may be affected by the C-HC Project.
	Kritz	DECI13	To sum up, we do not feel that the Final Environmental Impact Statement makes a solid case that the CHC is needed nor that it will benefit residents of the State of Wisconsin, Perhaps that was not its goal but the feeble effort it made in Section 1.4 suggests that it did think that it needed to identify the Project Purpose and Need (Volume 1, pp 11-19). Instead the Report reads like a document that was written to justify going ahead with decisions already made by MISO in 2011 and the WPSC (September 2019). Many sections of the Report read as if the authors were fully aware of the negative impacts the CHC would have on the Driftless Region. But the Reports bottom line is always, any negative impacts to the environment will be mitigated in the long run. We do not accept that conclusion and believe the Federal Government should draw the conclusion that the CHC will have major and long-term impacts on the Driftless Region if construction goes ahead.	The FEIS for the proposed C-HC Project provides a comprehensive and thorough disclosure of potential impacts to the human and natural environment. The FEIS complies with NEPA, satisfies the hard look doctrine, and is adequate to inform the decision makers and the public about potential impacts from the C-HC Project.
	Eide	GEO01	Please consider my personal comments following, Nov 25, 2019: The RUS Report acknowledges the unique geology and topography of the Driftless Region and describes it in some detail in parts of Volume 3. RUS is aware that the line will have a major impact on the Driftless. However it keeps coming back to the same story, and that is that the public good that will be served by the CHC line outweighs any potential damage that might be done to the Driftless Region and posterity.	Comment noted.

Organization	Commenter Last Name	Comment Code(s)	Comment on FEIS	Agency Response to Comment
	Eide	VIS01	The RUS report states its position in Volume 3, Chapter 4: "Any projects that would result in modification of the landscapesuch as transportation improvement projects, new energy development, new or rebuilt transmission lines, and urban development projectswould contribute to the cumulative adverse impacts to visual quality and aesthetics. These developments, when added to the direct effects of the proposed C-HC Project, would incrementally convert the scenic quality of the natural landscapes into a more developed and industrialized landscape that would adversely affect scenery, and sensitive viewers over _me." (quoted from Vol 3, Chapter 4, Section 4.4.10) The opponents of the CHC project disagree that the visual quality and aesthetics of the Driftless should be sacrificed in order to build the line. We we do not want to convert the scenic quality of the natural landscape into a more developed and industrialized landscape that would adversely affect scenery.	Comment noted.
	Eide	DECI13	We are not NIMBYs who do not want the line on our property. The line idea should simply not proceed at all. NO! masses of people and groups are opposed to this project. We attended the hearings at which WI residents had the opportunity to tell their opinions. We only heard one person who was not in opposition, and he was simply unsure	Comment noted.
	Eide	CUL01	Section 3.9 (Vol 2, p.280+)discusses cultural and archaeological issues raised by the CHC project. It once again minimizes issues that are important to the public. Robert Watson, who did several of the archaeological surveys for the applicants, stated in a March 26, 2018 memo to Amy Lee, ATC, that: The review of WHPD (WI Historic Preservation Database) has determined that 24 previously recorded archaeological or cemetery/burial sites are included within the 150 ft wide APE (Area of Potential Effects) of the proposed route segments. Portions of both prehistoric and historic archaeological sites fall within the APE. Prehistoric sites include isolated finds, lithic scatters and workshops, habitation sites, and mound groups and earthworks. Historic sites include farmstead and habitation sites, mining related sites, cemeteries, and historic trash scatters. Portions of some of the previously recorded archaeological or cemetery/burial within the APE have been investigated to assess potential project effects. Archaeological survey of unsurveyed portions of all sites within the final project alignment, temporary workspaces, or access routes is recommended to more fully assess potential project effects. (PSC REF#: 341912)	FEIS Section 3.10 and 5.4 explain that a PA was developed for the C-HC Project to resolve the potential adverse effects of the undertaking on historic properties. The Final PA is provided in FEIS Appendix H. The PA explains the process for identification and evaluation of historic properties that may be affected by the C-HC Project.
	Eide	CUL01	Unfortunately, the Report does not make it clear whether additional surveys of Cultural and Historic Resources will be carried out. The RUS does seem aware that there may be cultural and historic resources in the APE. For instance, on page 314 the Report states that: In addition, as a comprehensive cultural resources survey has not been conducted, any number of unknown resources may be present within the area analyzed for potential physical impacts. Prior to construction, RUS would attempt to identify and evaluate additional resources within the area analyzed for potential physical impacts. If, through consultation with the Iowa and/or Wisconsin SHPOs, RUS, the Utilities, and affected tribal groups, measures cannot be taken to avoid impacts to the characteristics that qualify any identified resource for inclusion in the NRHP, that may constitute a major impact. (3.9.2.9.2) Before giving its approval and funding to the CHC project, the RUS should require that the applicants carry out a survey of cultural and historic resources in the APE. We are concerned that construction of the line may start and then uncover cultural and historic resources.	FEIS Section 3.10 and 5.4 explain that a PA was developed for the C-HC Project to resolve the potential adverse effects of the undertaking on historic properties. The Final PA is provided in FEIS Appendix H. The PA explains the process for identification and evaluation of historic properties that may be affected by the C-HC Project.
	Eide	DECI13	To sum up, we do not feel that the Final Environmental Impact Statement makes a solid case that the CHC line is needed nor that it will benefit residents of the State of Wisconsin.	Comment noted.
	Eide	PUB01	We do think however that the voice of the people should be heard and considered	Comment noted.
Driftless Area Land Conservancy	Granneman	DECI13	The Driftless Area Land Conservancy (DALC) and Wisconsin Wildlife Federation (WWF) hereby submit the following comments on the Rural Utilities Services (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.	Thank you for your comment. The FEIS for the proposed C-HC Project provides a comprehensive and thorough disclosure of potential impacts to the human and natural environment. The FEIS complies with NEPA, satisfies the hard look doctrine, and is adequate to inform the decision makers and the public about potential impacts from the C-HC Project.
Driftless Area Land Conservancy	Granneman	NEP02	First, the Purpose and Need Statement has not been modified to address the significant issues identified in DALCs and WWFs 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.	The C-HC Project has been independently modeled and verified by multiple entities, including MISO, which used a planning process approved by FERC. The PSCW has independently verified the modeling for the C-HC Project, and the PSCW approved the project. The IUB is currently evaluating the project. RUS and the other Federal agencies have considered all information, including public comments, when analyzing the C-HC Project to comply with NEPA. This is explained in the FEIS.

Organization	Commenter Last Name	Comment Code(s)	Comment on FEIS	Agency Response to Comment
Driftless Area Land Conservancy	Granneman	ALT01	Second, the FEISs analysis of alternatives is deeply and critically flawed, and has not been meaningfully modified from the DEIS version to address DALCs and WWFs 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.	The C-HC Project has been independently modeled and verified by multiple entities, including MISO, which used a planning process approved by FERC. The PSCW has also modeled and approved the C-HC Project, while the IUB is currently evaluating the project. RUS and the other Federal agencies are considering all information, in addition to public comments, when analyzing the C-HC Project to comply with NEPA. This is explained in EIS Chapter 1. The Federal agencies must consider reasonable alternatives when considering their Federal decision. The Federal EIS considers alternatives that are ripe for Federal consideration. What that means is that a proposal has been made for those alternatives or that it is reasonably foreseeable that they could be implemented in a time frame that would meet the need for the Federal action. RUS regulations (7 CFR 1970.5 (b)(3)(ii)) require the Utilities to “develop and document reasonable alternatives that meet their purpose and need while improving environmental outcomes.” As part of the initial investigation of the proposed C-HC Project, the Utilities prepared three corridor-siting documents: the Alternatives Evaluation Study (Dairyland et al. 2016a), the Alternative Crossings Analysis (Burns and McDonnell Engineering Company 2016), and the Macro-Corridor Study (Dairyland et al. 2016b). RUS reviewed and accepted these documents as part of the alternatives development process for the C-HC Project EIS. The impact analysis for the alternatives carried forward for detailed analysis within the EIS has been independently verified by RUS and the other Federal agencies.
Driftless Area Land Conservancy	Granneman	EFF01	Third, the FEISs analysis of impacts is flawed and incomplete. The FEIS fails to adequately address concerns raised in DALCs and WWFs comments concerning the scope of actions included within the analysis, the discussion of impacts to various resources, and the cumulative impacts analysis.	Comment noted.
Driftless Area Land Conservancy	Granneman	NEP02	II. IMPERMISSIBLY NARROW AND UNSUPPORTED PURPOSE AND NEED STATEMENT As explained in DALCs and WWFs 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 Circuitin which the vast majority of the proposed transmission line project would take placehas consistently held that an agency should not rely on a private partys goals when determining the alternatives to be considered. Daniel R. Mandelker et al., NEPA Law and Litig., 2d 9:27 (2019).	The C-HC Project has been independently modeled and verified by multiple entities, including MISO, which used a planning process approved by FERC. The PSCW has independently verified the modeling for the C-HC Project, and the PSCW approved the project. The IUB is currently evaluating the project. RUS and the other Federal agencies have considered all information, including public comments, when analyzing the C-HC Project to comply with NEPA. This is explained in the FEIS.
Driftless Area Land Conservancy	Granneman	ALT01 NEP02	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 agencys claim that it must defer to an applicants 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 developers purpose as the Purpose for the EIS. National Parks Conservation Assn 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.	FEIS Section 1.5 describes the purpose of and need for Federal action. The Federal agencies must consider reasonable alternatives when considering their Federal decision. The Federal EIS considers alternatives that are ripe for Federal consideration. What that means is that a proposal has been made for those alternatives or that it is reasonably foreseeable that they could be implemented in a time frame that would meet the need for the Federal action.

Organization	Commenter Last Name	Comment Code(s)	Comment on FEIS	Agency Response to Comment
Driftless Area Land Conservancy	Granneman	ALT01 NEP02	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 agencys power would accomplish the goals of the agencys 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 projects 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 nations 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 nations 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 requirementsaddressing 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 #4increasing 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.	FEIS Section 1.5 describes the purpose of and need for Federal action. The Federal agencies must consider reasonable alternatives when considering their Federal decision. The Federal EIS considers alternatives that are ripe for Federal consideration. What that means is that a proposal has been made for those alternatives or that it is reasonably foreseeable that they could be implemented in a time frame that would meet the need for the Federal action. FEIS Section 2.2.2 provides rationale for not carrying forward non-transmission, lower-voltage, and underground alternatives for detailed analysis.
Driftless Area Land Conservancy	Granneman	ALT01	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.	To clarify, FEIS Section 2.1 explains the MISO process used to define the east and west termini for the C-HC Project. FEIS Chapter 1 explains that the C-HC Project is one of 17 multi-value projects (MVPs) identified by MISO to provide economic, reliability, and public policy benefits across what was then the entire MISO footprint: all or portions of 13 states and one Canadian province. MISO ultimately designated the C-HC Project as part of the MVP portfolio to be developed, identified as MVP #5. Once the boundaries of the C-HC Study Area were defined, the Utilities identified potential macro-corridors within the C-HC Study Area by completing an opportunities-and-constraints analysis using the results from field reconnaissance and geographic information system (GIS) databases. This analysis is fully explained in the Utilities' Macro-Corridor Study, which is the preliminary routing study for the proposed project (Dairyland et al. 2016b).
Driftless Area Land Conservancy	Granneman	ALT04	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 DALCs and WWFs 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 Operators (MISO) employee testified as an expert witness for DALC and WWF that there is no reliability need, as defined by MISOs standards, for the project. See Attachment C, Surrebuttal Testimony of Konidena, at 78; Attachment D, Direct Testimony of Konidena, at 611 (MISO does not consider the CHC project necessary to maintain reliability and address any market emergencies.).	FEIS Section 1.5 describes the purpose of and need for Federal action. The Federal agencies must consider reasonable alternatives when considering their Federal decision. The Federal EIS considers alternatives that are ripe for Federal consideration. What that means is that a proposal has been made for those alternatives or that it is reasonably foreseeable that they could be implemented in a time frame that would meet the need for the Federal action. FEIS Section 2.2.2 provides rationale for not carrying forward non-transmission, lower-voltage, and underground alternatives for detailed analysis. Furthermore, the C-HC Project has been independently modeled and verified by multiple entities, including MISO, which used a planning process approved by FERC. The State of Wisconsin has also approved the project through the PSCW and WDNR EIS process (PSCW 2019b). RUS has determined that the purpose of and need for the Federal action are supported (see EIS Chapter 1).

Organization	Commenter Last Name	Comment Code(s)	Comment on FEIS	Agency Response to Comment
Driftless Area Land Conservancy	Granneman	DECI01 NEP02	As explained in DALCs and WWFs 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 1115. Third, MISO never even analyzed this specific transmission line on its own it only did analyses of the entire portfolio as a whole. Id. DALCs and WWFs 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 generators 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]heres 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. 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.	RUS has determined that the purpose of and need for the Federal action are supported (see EIS Chapter 1). RUS has taken into account information provided by MISO, which used a planning process approved by FERC; the State of Wisconsin, which has approved the C-HC Project through the PSCW and WDNR EIS process; and information provided via the Utilities and public comment through the Federal NEPA process. The Federal agencies must respond to the applications and placed before them by the C-HC Utilities.
Driftless Area Land Conservancy	Granneman	NEP02	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 PSCWs 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 PSCWs own staff questioned whether there were economic benefits. Using Applicants own methodology, PSCW Staffs lead project engineer, Alexander Vedvik, determined that the Project could have negative net benefits to the MISO 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 lineor 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 RUSs own regulations.	The C-HC Project has been independently modeled and verified by multiple entities, including MISO, which used a planning process approved by FERC. The PSCW has independently verified the modeling for the C-HC Project, and the PSCW approved the project. The IUB is currently evaluating the project. RUS and the other Federal agencies have considered all information, including public comments, when analyzing the C-HC Project to comply with NEPA. This is explained in the FEIS.
Driftless Area Land Conservancy	Granneman	ALT04	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 DALCs and WWFs 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 Needsee 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.	FEIS Section 1.5 describes the purpose of and need for Federal action. The Federal agencies must consider reasonable alternatives when considering their Federal decision. The Federal EIS considers alternatives that are ripe for Federal consideration. What that means is that a proposal has been made for those alternatives or that it is reasonably foreseeable that they could be implemented in a time frame that would meet the need for the Federal action. FEIS Section 2.2.2 provides rationale for not carrying forward non-transmission, lower-voltage, and underground alternatives for detailed analysis. Furthermore, the C-HC Project has been independently modeled and verified by multiple entities, including MISO, which used a planning process approved by FERC. The State of Wisconsin has also approved the project through the PSCW and WDNR EIS process (PSCW 2019b). RUS has determined that the purpose of and need for the Federal action are supported (see EIS Chapter 1).

Organization	Commenter Last Name	Comment Code(s)	Comment on FEIS	Agency Response to Comment
Driftless Area Land Conservancy	Granneman	ALT04	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 citys 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-elandsolar-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 FEISs 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 FEISs 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 Chaos 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 C-HC Project has been independently modeled and verified by multiple entities, including MISO, which used a planning process approved by FERC. The PSCW has also modeled and approved the C-HC Project, while the IUB is currently evaluating the project. RUS and the other Federal agencies are considering all information, in addition to public comments, when analyzing the C-HC Project to comply with NEPA. This is explained in EIS Chapter 1. The Federal agencies must consider reasonable alternatives when considering their Federal decision. The Federal EIS considers alternatives that are ripe for Federal consideration. What that means is that a proposal has been made for those alternatives or that it is reasonably foreseeable that they could be implemented in a time frame that would meet the need for the Federal action.
Driftless Area Land Conservancy	Granneman	ALT01	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 shouldnt be considered	While a portion of the preliminary route identified as the SOO Green Renewable Rail project crosses a portion of the C-HC Project analysis area, the two project areas do not serve the same areas. The MISO process identified the need for the 345-kV transmission line between Dubuque County, Iowa, and Dane County, Wisconsin.
Driftless Area Land Conservancy	Granneman	EFF01	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	The FEIS for the proposed C-HC Project provides a comprehensive and thorough disclosure of potential impacts to the human and natural environment. The FEIS complies with NEPA.
Driftless Area Land Conservancy	Granneman	EFF01	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.	The C-HC Utilities would coordinate with local distribution and/or utility companies during final design of the C-HC Project to determine whether distribution facilities need to be relocated. At this time, the relocation of local utilities has not been identified outside the C-HC Project ROW or the 300-foot analysis area.
Driftless Area Land Conservancy	Granneman	VEG02	B. Vegetation and Wetlands The FEIS analysis of impacts to vegetation and wetlands is still insufficient, and many of the concerns raised in DALCs and WWFs 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.	FEIS Section 3.3 presents the vegetation resource data compiled from multiple agencies and sources as well as data from field survey efforts where possible. Additional surveys will be conducted as required and in coordination with state and Federal agencies.

Organization	Commenter Last Name	Comment Code(s)	Comment on FEIS	Agency Response to Comment
Driftless Area Land Conservancy	Granneman	VEG04	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.	NEPA does not require the monetization of impacts to any resource. In accordance with 40 CFR 1502.23, "For purposes of complying with the Act, the weighing of the merits and drawbacks of the various alternatives need not be displayed in a monetary cost-benefit analysis." Disclosure of the potential impacts to wetlands presented in Section 3.3 satisfies the hard look doctrine and is adequate to inform the decision makers and the public about potential impacts from the C-HC Project.
Driftless Area Land Conservancy	Granneman	VEG01	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 recognize 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 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. 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 3032. 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 analysis in the FEIS does not sweep aside potential impacts from the C-HC Project on the basis of mitigation measures. The FEIS discloses potential impacts to resources from the proposed C-HC Project and also discloses environmental commitments and mitigation measures that would be required as part of the Federal decisions. The environmental commitments listed in FEIS Table 3.1-4 and FEIS Appendix I, the Federal Mitigation Plan, will be included in the ROD for the C-HC Project. These measures will be required and enforced under the Federal agencies' decisions.
Driftless Area Land Conservancy	Granneman	EFF04	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 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.	The environmental commitments listed in FEIS Table 3.1-4 and FEIS Appendix I, the Federal Mitigation Plan, will be included in the ROD for the C-HC Project. These measures will be required and enforced under the Federal agencies' decisions. Since the C-HC Project is still in the design phase, it is not yet time for the environmental commitments and elements of the Federal Mitigation Plan to be included in construction contracts and plans. Furthermore, specific details related to the environmental commitments will be developed if the C-HC Project is approved by the Federal agencies. For example, erosion control plans are developed once the specific location of all infrastructure components (transmission line structures, staging areas, etc.) can be identified. Once the final design of the C-HC Project is complete, if approved, a tailored erosion control can be developed, submitted, and permitted by the appropriate agencies. It is also important to note that additional mitigation measure, environmental commitments, BMPs are required and will be enforced by state permitting agencies.
Driftless Area Land Conservancy	Granneman	VEG01	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.	The 300-foot analysis area was used to disclose potential impacts to vegetative communities because the analysis area provides a buffer surrounding the ROW to evaluate the extent and severity of impacts to vegetation and wetland communities that might occur outside the project construction footprint. The FEIS complies with NEPA by disclosing potential direct, indirect, and cumulative impacts to resources known to occur in the vicinity of the C-HC Project.
Driftless Area Land Conservancy	Granneman	WLDLF01	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.	FEIS Section 3.4 presents the wildlife species occurrence and distribution data compiled from multiple agencies and sources. Representative species from various taxa groups are mentioned to provide context and describe the potential impacts to various species that occur within the analysis area. As presented in Section 3.4, field survey efforts have occurred, and additional surveys will be conducted as required and in coordination with state and Federal agencies.

Organization	Commenter Last Name	Comment Code(s)	Comment on FEIS	Agency Response to Comment
Driftless Area Land Conservancy	Granneman	WLDLF01	The FEIS also does not remedy the DEISs 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. 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. 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	RUS has reviewed the Barrientos et al. (2012) study and Dr. Waller's testimony submitted to the PSCW. Although the Barrientos study is specific to bird collisions with transmission lines, there are some substantial differences in the study's location, methods, and goals, compared with the proposed C-HC Project that puts into question the direct applicability of the estimated 8.2 bird collisions per month per kilometer used in the Barrientos study when attempting to calculate potential bird collision for the C-HC Project. Due to uncertainty and the speculative nature of the number of bird collisions that could result from the C-HC Project, RUS opted to disclose potential impacts from bird collision in a qualitative manner (see FEIS Sections 3.4 and 3.14). This approach is appropriate to satisfy the hard look required by NEPA, especially since all six action alternatives and the No Action alternative would cross the Mississippi River and the Refuge in one of two locations that are within 1 mile of each other. It is important to note that the No Action alternative includes the existing transmission lines that cross the Refuge and the Mississippi River near the Stoneman Substation. FEIS Section 3.14 discloses the potential issue of avian collisions within the Refuge. FEIS Section 3.4 discloses the potential issue of avian collisions along the entire C-HC Project. The FEIS states, “Design standards for this Project would meet avian-safe guidelines as outlined by [Avian Powerline Interaction Committee] APLIC and the Utilities would develop a project-specific Avian Protection Plan.”
Driftless Area Land Conservancy	Granneman	WLDLF01	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. 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 at 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.	FEIS Section 3.11 discloses the potential impacts from lighting on the transmission structures and the Hill Valley Substation as follows, "Lights would be installed on transmission structures if required by the FAA [Federal Aviation Administration] for navigational safety. At this time, one location has been identified where safety lighting may be required, in the Cassville, Wisconsin, area if the Mississippi River crossing at the Stoneman Substation is selected (Alternatives 2, 3, or 4). Impacts to visual resources resulting from lighting at the Hill Valley Substation are not expected to occur because the substation would not be lit full time and would be surrounded by a wall, thereby minimizing glare from substation lights when in use. Nighttime lighting of the substation would be used during discrete operation and maintenance activities." FAA standards for structure markings are blinking lights and low intensity that can be detected by a pilot but that are less attractive to birds and other wildlife. Impacts to wildlife from lighting at the Hill Valley Substation are not expected to occur because the substation would not be lit full time and would be surrounded by a wall, thereby minimizing glare from substation lights when in use. The potential impacts to wildlife described in this comment are not expected to occur; therefore, the impacts are not included in the FEIS.
Driftless Area Land Conservancy	Granneman	WLDLF01	Impacts to specific bird species are also discounted. In DALCs and WWFs 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 DEISs 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 Wisconsins 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.	FEIS Section 3.4 discloses the potential collision with transmission lines impacts to whooping crane from the proposed C-HC Project. Additionally, the USFWS Biological Opinion (see FEIS Appendix G) considered potential impacts to the whooping crane resulting in a no effect determination.
Driftless Area Land Conservancy	Granneman	WLDLF04	Impacts to specific bird species are also discounted. In DALCs and WWFs 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 DEISs 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 Wisconsins 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.	FEIS Section 3.4 discloses the potential collision with transmission lines impacts to whooping crane from the proposed C-HC Project. Additionally, the USFWS Biological Opinion (see FEIS Appendix G) considered potential impacts to the whooping crane resulting in a no effect determination.

Organization	Commenter Last Name	Comment Code(s)	Comment on FEIS	Agency Response to Comment
Driftless Area Land Conservancy	Granneman	WAT03	D. Water Quality The FEISs discussion of water quality impacts still contains many flaws identified by commenters in the DEIS. As explained in DALCs and WWFs 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.	FEIS Section 3.5 discloses potential impacts to water resources and quality, including vegetation removal along streambanks and impacts to floodplains. Due to the current design phase of the C-HC Project, the specific locations of structures are not known. Similarly, the specific geotechnical information for each structure location has not been collected. Therefore, the FEIS is not able to disclosure where dewatering would occur or where the water would be discharged. Table 3.1-4 contains the following environmental commitment, "Any dewatering within the project area during construction would be discharged to a non-sensitive upland site to facilitate re-infiltration to the aquifer."
Driftless Area Land Conservancy	Granneman	AIR04	E. Air Quality and Climate Change While the FEIS makes an attempt to change its greenhouse gas impacts analysis in response to DALCs and WWFs 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-impactfederal-nepa-assessment-blm-utah-colorado-wyoming (Nov. 17, 2019). RUS should likewise rethink its approach to assessing climate impacts.	As noted in the comment, FEIS Section 4.4.5 estimates the potential range of greenhouse gas emissions from electricity generation sources that could have access to transmission from the C-HC Project. The type of amount of electricity generation sources that could be served over the life of the C-HC Project is not known at this time. By providing an estimated range of greenhouse gas emissions between 100% coal-fired generation and 100% wind-powered generation, the FEIS provides the public and the Federal decision makers with an adequate estimate of potential carbon dioxide (CO_2) emissions to make an informed decision.
Driftless Area Land Conservancy	Granneman	AIR03	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 Earths atmosphere will necessarily contribute to climate change. Even if trucks and construction equipment for the project would only emit a small amount of greenhouse gasesnote that RUS did not even attempt to estimate the amount of greenhouse gases that would be emittedthat would not mean that there would be no climate impacts. RUSs analysis is unsupportable.	FEIS Section 3.6 states, "GHG [greenhouse gas] emissions from the construction, operation, and maintenance of the project (including potential SF6 leaks from circuit breakers) would result in a minor (relative to local, national, and/or global GHG emissions) long-term increase in GHGs over the 60-year life of the C-HC Project." Furthermore, Table 3.6-4 estimates the amount of CO_2 equivalents that could be emitted from construction of the C-HC Project. Table 3.6-5 estimates the GHG emissions from operation of the C-HC Project.
Driftless Area Land Conservancy	Granneman	AIR04	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 NEPAs 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 projects 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, 7475 & n.30 (D.D.C. 2019).	NEPA does not require the monetization of impacts to any resource. In accordance with 40 CFR 1502.23, “For purposes of complying with the Act, the weighing of the merits and drawbacks of the various alternatives need not be displayed in a monetary cost-benefit analysis.” Comparison of the potential cumulative CO_2 emissions, presented in metric tons and compared with the U.S. total greenhouse gas emissions for 2017, satisfies the hard look doctrine and is adequate to inform the decision makers and the public about potential impacts from the C-HC Project.
Driftless Area Land Conservancy	Granneman	NOISE01	F. Noise The FEIS does not remedy or adequately respond to the problems with the noise impacts analysis identified in DALCs and WWFs 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. RUSs response misses the pointDALC 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.	FEIS Section 3.7 states, "Noise due to construction of the transmission line would be temporary. Total construction duration for the transmission line would occur over a 2-year period. During this time, construction activities would occur along discrete portions of the transmission line; therefore, noise impacts would occur over a shorter time frame at any given location. For those sensitive receptors closest to the ROW, adverse noise impacts from construction of the C-HC Project would be major and short term (lasting less than the total construction duration). "
Driftless Area Land Conservancy	Granneman	NOISE01	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.	FEIS Section 3.4 discloses potential noise impacts to wildlife, both summarized for general wildlife and explained for specific animal groups, primarily mammals and birds.
Driftless Area Land Conservancy	Granneman	CUL01	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.	FEIS Sections 3.10 and 5.4 explain that a PA was developed for the C-HC Project to resolve the potential adverse effects of the undertaking on historic properties. The Final PA is provided in FEIS Appendix H. The PA explains the process for identification and evaluation of historic properties that may be affected by the C-HC Project.

Organization	Commenter Last Name	Comment Code(s)	Comment on FEIS	Agency Response to Comment
Driftless Area Land Conservancy	Granneman	LAND07	H. Land Use and Agriculture The FEISs 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. DALCs and WWFs 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 DALCs 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 DALCs and WWFs 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, USDAs 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 easementconstitutes a federal action subject to review under NEPA. NRCD 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.	FEIS Section 3.10 describes the various types of conservation land uses, including private, state, and Federal programs that could potentially occur within the proposed C-HC Project analysis area. FEIS Section 3.10 states, "[Conservation] easements typically remain in private ownership and as such information about the specific location and scope of potential impacts to these resources is limited. The Utilities would coordinate with landowners and agencies administering conservation land programs on a site-by-site basis to minimize impacts to conservation lands and associated management of these properties." At this time, it is not clear to RUS that the C-HC Project would be permitted to cross lands with certain conservation easements; therefore, it would be speculative to attempt to analyze impacts to these lands beyond the level of detail provided in the FEIS.
Driftless Area Land Conservancy	Granneman	LAND01	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.	Thank you for bringing this error to our attention. Table 3.10-6, Table 3.10-10, Table 3.10-14, Table 3.10-18, Table 3.10-22, Table 3.10-26, and Table 3.10-30 should report less than 1 acre (< 1) for permanent impacts to grasslands, urban, barren, and wetland land cover classifications. This error has been corrected in the Record of Decision.
Driftless Area Land Conservancy	Granneman	LAND01	3. Development Plans While the FEIS discussion of local development and comprehensive land use plans was improved in response to DALCs and WWFs 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 PSCWs 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, ad Ridgeway. See PSCW and DNR FEIS at 2324, available in the PSCWs 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 propose project and local land use plans and values.	FEIS Section 3.10 states that the proposed C-HC Project would not impact comprehensive land use plans within the analysis area. However, the FEIS does not ignore other provisions in those plans but also states that the C-HC Project may be inconsistent with state goals in those land use plans. Section 3.10 discloses potential impacts to conservation, recreation, and natural areas from the proposed C-HC Project.
Driftless Area Land Conservancy	Granneman	LAND02	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 regions tourism, which is, as discussed further below, partly driven by the regions 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.	Data were not available to RUS to count the number of organic farms that could be crossed by each alternative analyzed in the FEIS. Therefore, the FEIS discloses impacts to organic farms in a qualitative manner. FEIS Section 3.10 discloses potential impacts to organic farms that could result from herbicide drift from the C-HC Project ROW and nearby organic farmland. FEIS Section 3.12 discloses potential economic impacts to organic farms. FEIS Table 3.1-4 also includes the environmental commitment, “During the easement negotiation, landowners can decline the use of herbicides for vegetation management activities once the line is in operation. Therefore, no herbicides would be applied within portions of the ROW on which the landowner wishes not to introduce it."
Driftless Area Land Conservancy	Granneman	VIS01	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 impactsfor 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.	FEIS Section 3.11 discloses potential impacts to visual quality and aesthetics from the proposed C-HC Project. This section includes numerous representative photos and visual simulations of potential changes in the landscape and viewshed resulting from the C-HC Project at different distances from the proposed transmission line, ranging from 150 feet to 2+ miles. RUS and the Cooperating Agencies took a hard look at the potential visual resource impacts and adequate information is presented to inform the Federal decision makers about the potential visual resource impacts.

Organization	Commenter Last Name	Comment Code(s)	Comment on FEIS	Agency Response to Comment
Driftless Area Land Conservancy	Granneman	SOCIO03	J. Socio-Economic and Environmental Justice Impacts The FEISs 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 wholeit 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 lines 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 areas 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 1215) which is ignored by the FEISs narrow description of impacts to tourism at specific recreation sites.	FEIS Section 3.12 discloses the potential impacts to tourism from the proposed C-HC Project. FEIS Section 3.11 discloses potential impacts to visual quality and aesthetics. FEIS Section 3.10 discloses potential impacts to land use, including agriculture and recreation.
Driftless Area Land Conservancy	Granneman	SOCIO03	2. Property Values While the FEIS section on property value impacts now incorporates one of the studies referenced in DALCs and WWFs 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. 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. 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.	Comment noted. RUS revised the FEIS to include references and studies provided by commenters that were peer reviewed.
Driftless Area Land Conservancy	Granneman	SOCIO04	3. Environmental Justice The FEIS does not adequately address environmental justice considerations. First, the FEIS improperly relied on the U.S. Census Bureaus 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 78 (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-aboutejscreen#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.	Comment noted. The FEIS discloses potential disproportionate impacts to environmental justice communities in FEIS Section 3.12.
Driftless Area Land Conservancy	Granneman	SOCIO04	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 dont 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.	The analysis contained in FEIS Section 3.12 is based on comparison of social/economic data and potential adverse impacts across U.S. Census Tracts, some of which include environmental justice communities and other tracts do not. Since the C-HC Project is not yet built, the expectation to compare potential impacts to environmental justice communities to communities that do not have high-voltage transmission lines seems immaterial. Instead, the FEIS takes into consideration other industrial developments that already occur within potential environmental justice communities.
Driftless Area Land Conservancy	Granneman	SOCIO04	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. Envtl. Prot. Agency Office of Enforcement and Compliance Assurance, to Dennis Rankin, Envtl. Specialist, U.S. Dept. of Agric., Rural Utils. Servs, at 78 (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.	The discussion of potential impacts from EMF is discussed in FEIS Section 3.13 under Public Health and Safety. EMF is discussed outside the context of the environmental justice section because EMF could occur throughout the project area.
Driftless Area Land Conservancy	Granneman	SOCIO04	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.	The discussion of potential impacts from EMF and corona effects is in FEIS Section 3.13 under Public Health and Safety. EMF and corona effects are discussed outside the context of the environmental justice section because EMF could occur throughout the project area.
Driftless Area Land Conservancy	Granneman	HAS01	K. Public Health and Safety The analysis of fire risks has not been improved to address the various issues raised in DALCs and WWFs 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 decadesfor 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 firewhat 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.	FEIS Section 3.13 discusses the potential risk of wildfire and severe weather.

Organization	Commenter Last Name	Comment Code(s)	Comment on FEIS	Agency Response to Comment
Driftless Area Land Conservancy	Granneman	REC02	L. Upper Mississippi River National Wildlife and Fish Refuge While the FEISs 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 Services 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.	Comment noted.
Driftless Area Land Conservancy	Granneman	EFF02	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	The FEIS for the proposed C-HC Project provides a comprehensive and thorough disclosure of potential impacts to the human and natural environment, including direct, indirect, and cumulative impacts. The FEIS complies with NEPA.
Driftless Area Land Conservancy	Granneman	EFF02	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 actionspast, present, and proposed, and reasonably foreseeablethat 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.	FEIS Chapter 4, Cumulative Impacts, explains that the description of the affected environment for each resource analyzed in Chapter 3 describes the existing conditions found within the C-HC Project analysis area. Those existing conditions reflect past actions that have occurred on the landscape; therefore, the affected environment inherently includes impacts from past actions. The cumulative impacts analysis focuses on those present and future actions that are not currently reflected in existing resource conditions. *CapX2020 345 kV Underground Report* (Power Engineers, Inc. 2010) (CapX2020) projects are not included in the cumulative scenario because they fall outside the spatial boundaries for cumulative impact analysis. Badger-Coulee Transmission Line segments 1 through 3 are listed in the cumulative scenario under “ATC transmission projects” in Table 4.3-1.
Driftless Area Land Conservancy	Granneman	EFF02	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.	The spatial boundaries for cumulative impact analysis, presented in Table 4.2-1, appropriately represent the boundaries for which direct and indirect effects from the C-HC Project would occur. As defined in NEPA regulations (40 CFR 1508.7), cumulative impacts result from the incremental impact of the action (C-HC Project) when added to other past, present, and reasonably foreseeable future actions. Therefore, the spatial boundaries for cumulative impacts analysis match the extent where direct and indirect effects are identified in FEIS Chapter 3. The Rock Island Clean Line Project falls outside all spatial boundaries identified for cumulative impacts analysis.
Driftless Area Land Conservancy	Granneman	EFF02	And while the FEISs 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.	The C-HC Utilities would coordinate with local distribution and/or utility companies during final design of the C-HC Project to determine whether distribution facilities need to be relocated. At this time, the relocation of local utilities has not been identified outside the C-HC Project ROW or the 300-foot analysis area.
Driftless Area Land Conservancy	Granneman	EFF04	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-andguidance/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 7 Id. at 11. Fully describing these aspects of proposed mitigation is important because, without appropriate documentation and monitoring, the use of mitigation may fail to advance NEPAs purpose of ensuring informed and transparent environmental decisionmaking. Failure to document and monitor mitigation may also undermine the integrity of the NEPA review.8 8 Id. at 2.	The environmental commitments listed in FEIS Table 3.1-4 and FEIS Appendix I, the Federal Mitigation Plan, will be included in the ROD for the C-HC Project. These measures will be required and enforceable under the Federal agencies' decisions. This is consistent with RUS’s environmental policies and procedures at 7 CFR 1970. Monitoring of those environmental commitments is expected to be a condition of the various permits received prior to construction of the C-HC Project. The Utilities will hire environmental monitors who will be present during construction of the C-HC Project, and the environmental monitors will ensure that the environmental commitments required by Federal and state agencies are followed. Furthermore, the PSCW order requires the presence of an Independent Environmental Monitor/Independent Agricultural Monitor for the portion of C-HC Project in Wisconsin.
Driftless Area Land Conservancy	Granneman	ALT02	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.	FEIS Section 2.4.6 describes the decommissioning activities that would occur after the life of the C-HC Project.

Organization	Commenter Last Name	Comment Code(s)	Comment on FEIS	Agency Response to Comment
Driftless Area Land Conservancy	Granneman	DECI13	VI. CONCLUSION For the reasons detailed above and in DALCs and WWFs 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.	The FEIS for the proposed C-HC Project provides a comprehensive and thorough disclosure of potential impacts to the human and natural environment. The FEIS complies with NEPA, satisfies the hard look doctrine, and is adequate to inform the decision makers and the public about potential impacts from the C-HC Project.
	Campbell	DECI13	Official statements regarding the CHC power line in Dane, Lafayette, Iowa, and Grant counties in Wisconsin. Donald H. Campbell 4001 Berg Road Dodgeville, WI 53533 Municipality County Year/Version PSCW Docket Link Town of Ellenboro Grant 2012 http://apps.psc.wi.gov/pages/viewdoc.htm?docid=171349 Town of So. Lancaster Grant 2012 http://apps.psc.wi.gov/pages/viewdoc.htm?docid=173000 Town of Spring Green Sauk 2012 http://apps.psc.wi.gov/pages/viewdoc.htm?docid=172976 Town of Wingville Grant 2012 http://apps.psc.wi.gov/pages/viewdo.chtm?docid=164153 Town of Wyoming Iowa 2012 http://apps.psc.wi.gov/pages/viewdoc.htm?docid=172976 Town of Eden Iowa 2014 http://apps.psc.wi.gov/pages/viewdoc.htm?docid=210169 Town of Mineral Point Iowa 2014 http://apps.psc.wi.gov/pages/viewdoc.htm?docid=200524 Town of Ridgeway Iowa 2014 http://apps.psc.wi.gov/pages/viewdoc.htm?docid=229678 Town of Ridgeway Iowa 2014 http://apps.psc.wi.gov/pages/viewdoc.htm?docid=296841 Town of Arena Iowa 2015 http://apps.psc.wi.gov/pages/viewdoc.htm?docid=210169 Village of Ridgeway Iowa 2015 http://apps.psc.wi.gov/pages/viewdoc.htm?docid=229681 Town of Arena Iowa 2016* http://apps.psc.wi.gov/pages/viewdoc.htm?docid=285866 Town of Belmont Lafayette 2016* http://apps.psc.wi.gov/pages/viewdoc.htm?docid=292900 Town of Cross Plains Dane 2016* Not yet posted on PSC docket Town of Lima Grant 2016* http://apps.psc.wi.gov/pages/viewdoc.htm?docid=290186 Town of Mifflin Iowa 2016* http://apps.psc.wi.gov/pages/viewdoc.htm?docid=294253 Town of Platteville Grant 2016* http://apps.psc.wi.gov/pages/viewdoc.htm?docid=293075 Town of Vermont Dane 2016* http://apps.psc.wi.gov/pages/viewdoc.htm?docid=287631 Town of Arena Iowa 2017*** http://apps.psc.wi.gov/pages/viewdoc.htm?docid=297443 Town of Arena Iowa 2017** http://apps.psc.wi.gov/pages/viewdoc.htm?docid=297449 Village of Arena Iowa 2017** http://apps.psc.wi.gov/pages/viewdoc.htm?docid=328911 Town of Brigham Iowa 2017** http://apps.psc.wi.gov/pages/viewdoc.htm?docid=297137 Town of Ellenboro Grant 2017** http://apps.psc.wi.gov/pages/viewdoc.htm?docid=295366 Town of Ridgeway Iowa 2017** http://apps.psc.wi.gov/pages/viewdoc.htm?docid=296842 Town of Vermont Dane 2017** http://apps.psc.wi.gov/pages/viewdoc.htm?docid=296071 Town of Wingville Grant 2017* http://apps.psc.wi.gov/pages/viewdoc.htm?docid=297500 Town of Wyoming Iowa 2017** http://apps.psc.wi.gov/pages/viewdoc.htm?docid=294792 Town of Wyoming Iowa 2017^ http://apps.psc.wi.gov/pages/viewdoc.htm?docid=302040 Town of Dodgeville Iowa 2017^ http://apps.psc.wi.gov/pages/viewdoc.htm?docid=303706 Village of Spring Green Sauk 2017^ Not yet posted on PSC docket Dane County Dane 2017** http://bit.ly/DaneCounty_Resolution_May2017 Iowa County Iowa 2017^ http://apps.psc.wi.gov/pages/viewdoc.htm?docid=303831 Town of Clyde Iowa 2017** http://apps.psc.wi.gov/pages/viewdoc.htm?docid=328507 Village of Mount Horeb Dane 2017^ http://apps.psc.wi.gov/pages/viewdoc.htm?docid=340325 Town of Springdale Dane 2017^ http://apps.psc.wi.gov/pages/viewdoc.htm?docid=333789 Village of Montfort Grant 2017** http://apps.psc.wi.gov/pages/viewdoc.htm?docid=334142 Village of Montfort Grant 2017^ http://apps.psc.wi.gov/pages/viewdoc.htm?docid=334254 Village of Belmont Lafayette 2017 Not yet posted on PSC docket Mt. Horeb School Dist. Dane 2017^ Not yet posted on PSC docket Town of Liberty Grant 2018** http://apps.psc.wi.gov/pages/viewdoc.htm?docid=344148 Town of Potosi Grant 2018** http://apps.psc.wi.gov/pages/viewdoc.htm?docid=344616 Town of Mount Ida Grant 2018** http://apps.psc.wi.gov/pages/viewdoc.htm?docid=342796 Grant County Grant 2018** http://apps.psc.wi.gov/pages/viewdoc.htm?docid=341280 W.Dane Preservation Dane 2018** http://apps.psc.wi.gov/pages/viewdoc.htm?docid=340627 Barneveld School Dist. Dane 2018^ http://apps.psc.wi.gov/pages/viewdoc.htm?docid=341023 Village of Barneveld Iowa 2018** http://apps.psc.wi.gov/pages/viewdoc.htm?docid=340766 Town of Brigham Iowa 2018^ http://apps.psc.wi.gov/pages/viewdoc.htm?docid=342185 Town of Woodman Grant 2018** Not yet posted on PSC docket * Additionally specifies cost-benefit analysis at two stages of PSCW HVT review process including, initially, by applicants during the public information stage to permit informed input capable of affecting the energy planning goals and scope of the application. Applicants notified of all adoptions by mail. ** Additionally requests inclusion of the resolution, in whole, in the PSCW EIS. *** Addendum supporting resolution with citizen signatures/contacts. ^ Additionally opposes the Cardinal Hickory Creek Transmission Proposal.	Comment noted.
	Luecke	NEP02	The ATC lines are NOT WARRANTED! Wisconsin DOES NOT NEED this transmission. Our electric usage is flat and we will not benefit from the high voltage lines. Let's face it---the function of the ATC lines is to pass through Wisconsin, through our treasured Driftless Land, FOR USAGE BEYOND WISCONSIN!	Comment noted.
	Luecke	VIS01	The Driftless Area and the Upper Mississippi River National Wildlife and Fish Refuge should not be marred by monstrous towers. Don't most people want to escape the cities for a serene country drive, viewing natural scenic areas? The Hwy 18/151 has been that scenic drive with few telephone and electric poles cluttering the landscape. Most of the lines have been buried along this drive. The high voltage lines and towers will ruin that space for 45+ miles, then on through Montfort, Lancaster, Cassville, and the Mississippi River crossing.	FEIS Section 3.11 discloses potential impacts to visual quality and aesthetics from the proposed C-HC Project.
	Luecke	DECI13 REF01	The other 16 MISO projects connecting high voltage lines run across glaciated, flattened areas. The CHC project is the only line affecting such an area as the special unglaciated Driftless Area, the only one of its kind in the world. NO NEED to spoil this unique environment!	Comment noted.

Organization	Commenter Last Name	Comment Code(s)	Comment on FEIS	Agency Response to Comment
	Kelen	AIR04	In the discussion of the impact of weather on the towers, the report relies on NOAA data from 1980-2006. which makes no sense, given the rapidly changing and uncharacteristic weather patterns caused by climate change.	Comment noted. FEIS Section 3.13 explains that the C-HC Project would be designed in accordance with NESC requirements that take into account severe weather events in this region of the country, including high winds and ice. NESC standards include requirements for line clearances and sag due to ice loading, high-temperature loading, or high-speed winds; conductor tension addressing high wind speeds; and strength and loading rules to address high winds; as well as other measures to address severe weather events.
	Kelen	WAT02	As for the impact of herbicides on our environment the EIS insists the utilities use regulated chemicals without acknowledging the ongoing SWIGG groundwater study that shows well contamination from those very chemicals in Grant, Iowa, and Lafayette counties.	In accordance with its environmental commitments, the Utilities will employ a Certified Pesticide Applicator for all herbicide applications within the C-HC Project. The Certified Pesticide Applicators will only use herbicides registered and labeled by the USEPA and will follow all herbicide product label requirements. Herbicides approved for use in wetland and aquatic environments will be used in accordance with label requirements, as conditions warrant. Groundwater contamination from the use of herbicides to maintain the C-HC Project ROW is not expected.
	Kelen	REC04 VEG04	Not far from me are the 540 acres of the Ridgeway Pine Relict State Natural Area which almost borders the proposed line and currently has a pristine, well functioning major wetland. It has been important with its wetland to act as a sponge for the heavy precipitation throughout Southwestern Wisconsin. Without its sponging wetland, even more of the heavy rains would have contributed to raging flooding of farm lands.	The Ridgeway Pine Relict State Natural Area would not be crossed by the C-HC Project. Potential impacts to pine relict stands elsewhere in the analysis area are disclosed in FEIS Section 3.3.
	Kelen	SOIL02	I will also add that the ongoing disturbance so close to this wetland from ATC transmission line construction, continuing tree cutting, spraying pesticides to rid perennial plants, bushes and trees, drift of such pesticides, and storm water drainage during construction will contribute to the pollution, erosion and loss of nearby soil.	FEIS Section 3.3 discloses potential impacts to vegetation, including wetlands, from the proposed C-HC Project.
	Kelen	VEG04	These same factors will also contribute to degrading this wetland and any others in the area. Wetlands are not as common in Driftless SW WI as they are in other parts of Wisconsin so they need to be protected.	FEIS Section 3.3 discloses the potential impacts to wetlands from the proposed C-HC Project.
	Kelen	LAND02 SOIL04	I would like to express my concern that the Final EIS severely downplays the permanent damage that will occur to some of the best cropland soils in the state of Wisconsin. This soil damage will affect farm incomes, profitability, and economic stability in the area for decades to come.	Comment noted.
	Kelen	LAND02 SOCIO03	The final EIS states in Chapter 3 that wet soils are more easily damaged and more difficult to repair. When one considers the current wet state of soils that have suffered under the past five years of heavy precipitation throughout Southwestern Wisconsin, I believe that the final EIS severely underestimates the amount of productive ag land that will be permanently damaged and will become nonproductive, or greatly unproductive, cropland if this line is constructed. This will become a devastating economic loss for this region that in the long term, cannot be made up by easement payments. This soil damage will result in lost cropland, lost land values at times of sale, and lost tax base for townships, counties, and the state. This will eventually trickle down to future generations of rural Wisconsin and create a rural utility wasteland where the backbone of our economy, our farms, are no longer viable to support our communities and our way of life.	FEIS Section 3.10 discloses the potential impacts to agricultural lands, and Section 3.12 discloses the potential impacts to the agricultural economy.
	Kelen	ALT01 SOCIO03	Rural farms and people have long been supportive of providing land for electric infrastructure to power our nation, However, to be asked to make these huge sacrifices of our crop lands for a line that has not been proven to be needed, and has not had adequate exploration of potentially less expensive, and definitely more cropland friendly non-transmission alternatives, is a direct blow to our livelihoods, farms, and economies of our corner of the state. I do not think that the final EIS has been adequately explored or addressed these crop land and economic concerns of rural Southwestern Wisconsin.	Comment noted. FEIS Section 3.10 discloses potential impacts to land use, including agriculture.
	Baum	REC04	The 550 acres of the Ridgeway Pine Relict State Natural Area, (henceforth called Pine Relict) stand within one quarter mile of the proposed CHC line, just North of Highway 18-151 at Ridgeway.	The Ridgeway Pine Relict State Natural Area would not be crossed by the C-HC Project. Potential impacts to pine relict stands elsewhere in the analysis area are disclosed in FEIS Section 3.3.
	Baum	VEG04	What I explain today that I have not commented upon in prior presentations is the wetland that is in the middle of the 550 acres of Pine Relict. The final EIS states in Chapter 3 that wet soils are more easily damaged and more difficult to repair. We know that all well-functioning wetlands act as huge sponges for heavy precipitation. Wetlands act as a natural sponge and filter by removing pollutants from water, storing water temporarily and allowing it to percolate into the ground. Wetland plants and soils work around the clock to cleanse both surface and groundwater which helps protect public health, native species and farm land. Some pollutants are held for years in the roots of native wetland plants. But too much pollution and too many invasives could make a wetland no longer able to act as the needed sponge. It is estimated that almost half of Wisconsin's original million acres of wetland type areas have disappeared due to human development and invasives. And the Driftless area had few wetlands to begin with. Geologically wetlands are not nearly as common in Driftless SW WI as they are in other parts of Wisconsin. So the wetland in the Pine Relict is rather unique in this area and even more needed. It is only with the decades of good conservation practices of local family farmers and the recent hard work of volunteers today who spend hours removing woody invasives and pulling Garlic mustard near to the Pine Relict wetland that has helped maintain a good working wetland. Why is this important to Southwestern Wisconsin? With Climate Chaos, Wisconsin is facing more and heavier rains fall than ever before. Without a wetland's sponge even more of the heavy rains would contribute to raging flooding of farm lands. I also add here that the ongoing disturbance so close to this wetland from a CHC transmission line's construction, continuing tree cutting, spraying pesticides to rid perennial plants, bushes and trees, drift of such pesticides, and storm water drainage during construction would certainly contribute to the pollution, erosion and loss of nearby soil, and ultimately to the degradation of the Pine Relict wetland. Reed canary grass is an invasive species that dominates almost half a million acres of Wisconsin's wetlands. But no Reed Canary grass has been found in the Pine Relict as yet. Instead we have native American germander, Winterberry holly, Joe-pye-weed, Bog rosemary, Turtlehead, Blue lobelia, Palm Sedge, Sensitive fern, Bottlebrush sedge, Fox sedge, Marsh marigold, Skunk cabbage, Jewelweed, etc. This is probably because it is protected on all sides by deep cliffs, called "the gulch". So far roads, humans and mammals have not carried invasives and pollutants into the wetland. Invasive species are considered by many as the greatest threat to the long-term health and sustainability of Wisconsin's wetlands.	FEIS Section 3.3 discloses the potential impacts to wetlands from the proposed C-HC Project.

Organization	Commenter Last Name	Comment Code(s)	Comment on FEIS	Agency Response to Comment
	Baum	LAND02 SOIL01	The final EIS severely downplays the permanent damage that will occur to some of the best cropland soils in the state of Wisconsin when the waters have no where percolate slowly. The soil loss will affect farm incomes, profitability, and economic stability in the area for decades to come.	FEIS Section 3.10 discloses the potential impacts to agricultural lands, and Section 3.12 discloses the potential impacts to the agricultural economy.
	Baum	NEP02 SOCIO08	To sum up, the Friends of the Pine Relict believe that the Final Environmental Impact Statement makes no reasonable argument for the need of the CHC. We believe that no cost/benefit analysis using today's data would justify the great cost in money to consumers nor the huge cost on the environment that it would involve.	The Federal agencies are required to comply with NEPA. As stated in NEPA regulations (40 CFR 1502.23), “For purposes of complying with the Act, the weighing of the merits and drawbacks of the various alternatives need not be displayed in a monetary cost-benefit analysis and should not be when there are important qualitative considerations.”
	Baum	REC04 VEG04	We fear in particular for the example of the Ridgeway Pine Relict State Natural Area. There is no suggestion given in the EIS of how the damage done to wetland within the Pine Relict by CHC can possibly "be mitigated in the long run. That is because there is no way to reduce that damage later or in the big picture. The big picture is that the CHC, if constructed, will have major, long-term and irreversible impacts on the Ridgeway Pine Relict State Natural Area and on much of the Driftless area.	The Ridgeway Pine Relict State Natural Area would not be crossed by the C-HC Project. Potential impacts to pine relict stands elsewhere in the analysis area are disclosed in FEIS Section 3.3.
	McGee	SOCIO08	I believe that they would cost ratepayers too much to build and, more importantly, to maintain.	Comment noted.
	McGee	ALT02	Electricity usage is decreasing and will continue to do so with modern technologies and conservation measures, which makes the proposed lines essentially obsolete. Upgrading the existing grid infrastructure could handle any future energy flow from sustainable wind and solar farms. This would cost less to build and maintain, yet would still give the for-profit ATC investors the financial returns they feel entitled to.	The C-HC Project has been independently modeled and verified by multiple entities, including MISO, which used a planning process approved by FERC. RUS has determined that the purpose of and need for the Federal action are supported (see EIS Chapter 1). The State of Wisconsin has also approved the project through the PSCW and WDNR EIS process (PSCW 2019b). FEIS Section 2.2.2 provides the rationale for not carrying forward non-transmission, lower-voltage, and underground alternatives for detailed analysis.
	McGee	CUL01	I don't think that it adequately addressed the negative impacts the proposed line would have on our history (The Military Ridge, and Ho Chunk heritage), our farming and rural town heritage (including the Thomas Stone Barn and Barneveld Prairie which would have ruined views and visitation)	FEIS Sections 3.10 and 5.4 explain that a PA was developed for the C-HC Project to resolve the potential adverse effects of the undertaking on historic properties. The Final PA is provided in FEIS Appendix H. The PA explains the process for identification and evaluation of historic properties that may be affected by the C-HC Project.
	McGee	WLDLF01	the environment (including sensitive species whose larvae and migration could be impacted by the electromagnetic fields from the lines),	Comment noted.
	McGee	VIS01	our current farm, town, and city cultures that depend on unobstructed vistas of the Driftless Area,	FEIS Section 3.11 discloses potential impacts to visual quality and aesthetics from the proposed C-HC Project.
	McGee	SOCIO03	the effects CHC would have on long term school revenue from taxes (which would decrease from reduced property values along the line),	Comment noted.
	McGee	SOCIO07	the emotional impacts of everyone near and far who travel the proposed corridor for vacation, tourism, commuting, and daily life.	Comment noted.
	McGee	HAS01	I also am concerned about the potential effects (some likely still unknown) of electromagnetic fields on the health of people and other animals who live nearby such lines.	The topic of EMF is discussed in FEIS Section 3.13.
	McGee	EFF01	When the life of these lines would end (40 years or so) what would be the environmental impact of hiring crews to remove the lines and recycle the materials?	Decommissioning activities associated with the C-HC Project are described in FEIS Section 2.4.6. Decommissioning activities would have similar impacts to those described for construction of the C-HC Project.
	McGee	NEP03	What are the impacts of mining the steel, copper, cement, oil, and other materials that would go into building this line? How much carbon would be emitted? How many foreign ecosystems would be harmed to extract the resources to build the lines? How many distinct and distant cultures would be harmed by powerful multinational mining companies to obtain the materials? How many foreign environmental activists who don't want extractive mining in their area (for resource-heavy projects like CHC) would be killed to silence their opposition.	Steel, copper, cement, oil, and other materials could be used to construct the C-HC Project, depending on geotechnical conditions. Cement is one ingredient of concrete, and CO_2 emissions from cement production varies based on the type of facility used to produce cement. Due to confidentiality of data from the industry, USEPA suggested in Hanle (2004) that “an average emissions factor may introduce bias, particularly at the facility level. Further, it is difficult to identify and attribute emissions to the wide variety of solid waste materials used in kilns." For the C-HC Project, it is not possible to develop a reliable estimate of CO_2 emissions that could occur from the type of cement used for an uncertain number of transmission line foundations and substation construction that would require concrete. However, to help provide some context on this issue, U.S. cement production accounts for approximately 0.76% of the U.S. greenhouse gas emissions estimate from 2017. The C-HC Project would use a very small portion of the nation’s total cement production to build the C-HC Project. Although we cannot quantify these emissions for the C-HC Project, a cursory review suggests that the CO_2 emissions from cement necessary to construct the C-HC project would be small. The difference between action alternatives would be even smaller. This analysis, as well as additional analysis for other construction materials, does not seem necessary to reasonably compare alternatives for the decision makers and the public.
	McGee	NEP03	Is the link between foreign extraction of materials for CHC and its impact on others' cultures and foreign ecosystems thoroughly considered in the EIS? I suggest that is isn't, but should be.	Comment noted.
	McGee	EFF02	Finally, would building this CHC line lead to eventual expansion of other lines in the Driftless Area? If so, what would their combined impact be?	Potential cumulative impacts associated with the C-HC Project are disclosed in FEIS Chapter 4.

Organization	Commenter Last Name	Comment Code(s)	Comment on FEIS	Agency Response to Comment
	Kurt	NEP02	these additional pages still do not analyze or prove that Cardinal Hickory Creek is critical to meet any current or foreseeable energy needs in the state of Wisconsin.	The C-HC Project has been independently modeled and verified by multiple entities, including MISO, which used a planning process approved by FERC. The PSCW has independently verified the modeling for the C-HC Project, and the PSCW approved the project. The IUB is currently evaluating the project. RUS and the other Federal agencies have considered all information, including public comments, when analyzing the C-HC Project to comply with NEPA. This is explained in the FEIS.
	Kurt	ALT06	During the Wisconsin PSC Hearings, the PSC staff determined there was an alternative to CHC that would achieve Wisconsins energy efficiency goals. Known as BWARA (Base With Asset Renewal Alternative), this alternative would rebuild existing lines at a fraction of the cost (around $900,0000) of CHC (half a billion + or), which would then free up the $67 million or so that MISO wants Wisconsin to commit to paying for steel in the ground for investment in local renewable energy.	The C-HC Project has been independently modeled and verified by multiple entities, including MISO, which used a planning process approved by FERC. RUS has determined that the purpose of and need for the Federal action are supported (see EIS Chapter 1). The State of Wisconsin has also approved the project through the PSCW and WDNR EIS process (PSCW 2019b). The PSCW order states, “The Commission finds that Commission’s staff’s base with asset renewal alternative provides a targeted solution to specific reliability issues, and is not an approvable, feasible, or robust alternative to the project. The project, unlike the alternatives studies that may also provide certain benefits, provides economic, reliability, and public policy benefits, the costs of which would not fall exclusively on Wisconsin customers… The base with asset renewal alternative has also not been developed or studied in any detail other than as a modeling comparison to the project. Therefore, the Commission does not have any certainty based on the record that such an alternative is truly feasible or implementable.” (PSCW 2019b;33). FEIS Section 2.2.2 provides the rationale for not carrying forward non-transmission, lower-voltage, and underground alternatives for detailed analysis.
	Kurt	ALT02	The RUS Final Environmental Impact Statement does not acknowledge the rapidly changing landscape of energy. It does not acknowledge that investment should be about CO2 reduction, and that 50% of our CO2 reduction since 2005 has come from energy efficiency, net metering and rooftop solar, according to statistical information prepared by the federal government.	FEIS Section 2.2.2 provides the rationale for not carrying forward non-transmission, lower-voltage, and underground alternatives for detailed analysis.
	Kurt	DECI13	What do you say to an entire body of people whose minds have already been made up? Whose report is a compilation of rhetoric that appears to come directly from MISO, rather than an independent and thoughtful consideration of rapidly changing energy technologies, climate, demographics and need. We as a world are running out of time to make things right. Building a 120mile fence across and through communities, unique habitats and irreplaceable topography is wrongminded thinking driven by an organization that does not care one iota about Wisconsin, its people or its wildlife and ecological systems.	Comment noted.
	Kurt	PUB01	On June 15, 2015, the City of Dubuque, Iowa passed Resolution 21515 denying ITCs request for permitting for Cardinal Hickory Creek through the City, stating in part that CHC would not be in the public interest. Since then, countless individuals, organizations, towns, municipalities and elected officials have been diligently analyzing and weighing the benefits vs the costs of CHC. Their Resolutions, comments, briefs, and letters have become a part of the Public Service Commissions Docket. The Attorney Generals of the State of Illinois and the State of Michigan filed Amicus Briefs with the Wisconsin PSC stating their concerns, a copy of which is attached with this email. So too have Wisconsin State Representatives and Senators. The RUS Final Environmental Impact Statement gives its blessing to Cardinal Hickory Creek because its statements say that we dont count. That wildlife habitat does not count. That MISOs wish lists trump actual need. It does this by insisting that all the damage done will be mitigated and minimized.	FEIS Section 2.2 explains the City of Dubuque has exclusive permitting authority over whether a transmission line of this voltage can be constructed within its jurisdictional boundary. Due to this resolution, it was determined that routing the C-HC Project through the City of Dubuque was not feasible. The communities in Wisconsin do not have the same permitting authority for proposed transmission lines. Therefore, the FEIS cannot treat the opposition resolutions from the Wisconsin communities with the same weight as the City of Dubuque resolution.
	Kurt	LAND02	The RUS Final Impact Statement does not address all the different ways CHC will injure those who make their living from farming.	FEIS Section 3.12 discloses the potential impacts to the socioeconomics within the analysis area from the proposed C-HC Project.
	Kurt	WLDLF01	The Final Impact Statement does not begin to address the effects of transmission on avian fertility and wildlife. The RUS Final Impact Statement does not note that animals see transmission as light.	FEIS Section 3.4 discloses the potential impacts to wildlife, including bird species, from the proposed C-HC Project.
	Kurt	WLDLF02	That a 120mile fence of light across a critical bird migration route will have longterm consequences.	Comment noted.
	Kurt	DECI11	At what point has a careful analysis been done to answer the questions asked in Resolutions passed by counties and municipalities throughout southwest Wisconsin.	The FEIS for the proposed C-HC Project provides a comprehensive and thorough disclosure of potential impacts to the human and natural environment. The FEIS complies with NEPA.
Driftless Area Land Conservancy	Granneman	DECI09	Contrary to the draft Compatibility Determination, Commenters submit that the CHC project (1) cannot meet the requirements for a compatible use under the National Wildlife Refuge System Administration Act of 1966 (1966 Act), as amended by the National Wildlife Refuge System Improvement Act of 1997 (1997 Act), 16 U.S.C. 668dd, 668ee; and (2) cannot be justified as merely a realignment or minor extension or expansion of an existing transmission line rightof-way. Allowing the CHC Project to proceed through the Upper Mississippi Refuge sets a dangerous precedent.	USFWS has reviewed all public comments submitted for the draft compatibility determination contained in FEIS Appendix J. USFWS has found the proposed transmission line ROW across the Refuge, as described in the FEIS as Alternative 6 and described in the ROW application from ITC and Dairyland, to be compatible. See ROD Appendix B for the signed compatibility determination.
Driftless Area Land Conservancy	Granneman	DECI09	A number of our national wildlife refuges are currently crossed by pipelines or transmission lines that predate the 1966 and 1997 Refuge Administration Acts and, under the best of circumstances, it will be many years before those incompatible uses can be reduced and eliminated. Under the theory outlined in this draft Compatibility Determination, however, those incompatible uses will never be eliminated, and indeed will be used to allow the construction of new infrastructure that would expand or even, as in this case, extend to additional Refuge land in perpetuity. The expansion or extension of infrastructure to additional Refuge land is contrary to both the letter and spirit of the 1966 and 1997 Acts. We therefore urge that the draft Compatibility Determination be withdrawn, and that the joint Application for Transportation and Utility Systems and Facilities on Federal Lands from applicants ITC Midwest and Dairyland Power Cooperative be denied.	USFWS has reviewed all public comments submitted for the draft compatibility determination contained in FEIS Appendix J. USFWS has found the proposed transmission line ROW across the Refuge, as described in the FEIS as Alternative 6 and described in the ROW application from ITC and Dairyland, to be compatible. See ROD Appendix B for the signed compatibility determination.

Organization	Commenter Last Name	Comment Code(s)	Comment on FEIS	Agency Response to Comment
Driftless Area Land Conservancy	Granneman	REC02	The Upper Mississippi River National Wildlife and Fish Refuge was established by an Act of Congress in 1924. Upper Mississippi River National Wildlife and Fish Refuge Act, Pub. L. No. 68-268, 43 Stat. 650 (1924). Today, it covers approximately 240,000 acres of Mississippi River floodplain along a 261-mile corridor running from near Wabasha, Minnesota to near Rock Island, Illinois. The 1924 Act describes the purposes of the Refuge as follows: a. [A]s a refuge and breeding place for migratory birds included in the terms of the convention between the United States and Great Britain for the protection of migratory birds, concluded August 16, 1916, and b. [T]o such extent as the Secretary may by regulations prescribe, as a refuge and breeding place for other wild birds, game animals, fur-bearing animals, and for the conservation of wild flowers and aquatic plants, and c. [T]o such extent as the Secretary may be regulations prescribe as a refuge and breeding place for fish and other aquatic animal life. 16 U.S.C. 723. The Refuges own informational material describes it as an invaluable natural legacy recognized by Congress as part of a nationally significant ecosystem. The Refuges Comprehensive Conservation Plan (CCP) describes it as a seemingly endless panorama of river, backwaters, marshes, islands, and forest, framed by steep bluffs and as a national scenic treasure. It is the most heavily visited national wildlife refuge in the System, with an estimated 3.7 million annual visitors. The CCP also calls it perhaps the most important corridor of fish and wildlife habitat in the central United States: 306 bird, 119 fish, 51 mammal, and 42 mussel species recorded; Up to 40% of the continents waterfowl use the Mississippi Flyway during migration, with up to the 50% of the worlds Canvasback ducks and 20 % of the eastern U.S. population of Tundra Swans stopping on the Refuge during fall migration; 167 active Bald Eagle nests in 2005, up to 2,700 eagles on the Refuge during spring migration; and Approximately 5,000 heron and egret nests in up to 15 colonies. The Refuge has National Scenic Byways on both sides. It has been designated as a Globally Important Bird Area, and has been designated a floodplain Wetland of International Importance by the Ramsar Convention on Wetlands.	Comment noted. The Refuge's Comprehensive Conservation Plan was used as a reference in the FEIS.

Organization	Commenter Last Name	Comment Code(s)	Comment on FEIS	Agency Response to Comment
Driftless Area Land Conservancy	Granneman	DECI09	The statute governing management of the Refuge is the National Wildlife Refuge System Administration Act of 1966, as amended by the National Wildlife Refuge System Improvement Act of 1997, 16 U.S.C. 668dd, 668ee. The 1997 Act for the first time clarified that the sole mission of the National Wildlife Refuge System is: [T]o administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans. 16 U.S.C. 668dd(a)(2). That mission includes the obligation to ensure that the biological integrity, diversity, and environmental health of the System are maintained . 16 U.S.C. 668dd(a)(4)(B). The 1997 Act was enacted in response to a series of reports finding that incompatible uses, including transmission lines, were threatening the biological integrity and purposes of the national wildlife refuge. See generally U.S. Govt Accountability Office, GAO-RCED-89-196, National Wildlife Refuges: Continuing Problems with Incompatible Uses Call for Bold Action (1989), https://www.gao.gov/assets/150/148073.pdf. The GAO report recommended that, to address that weakness in the 1966 statute, compatibility determinations needed to be based solely on biological criteria to prevent nonbiological considerations from influencing such decisions. Id.at 24. It also recommended that existing secondary uses like pipelines, powerlines, and business activities on Refuge land be periodically reevaluated, and that incompatible uses be eliminated as soon as practicable. Id. at 33. Consistent with that newly clarified mission, the 1997 Act provides that the Secretary [USFWS] shall not initiate or permit a new use of a refuge or expand, renew, or extend an existing use of a refuge, unless the Secretary has determined that the use is a compatible use and that the use is not inconsistent with public safety. 16 U.S.C. 668dd(d)(3)(A)(i) (emphasis added). Even more specifically, the Act provides that USFWS may not grant easements for purposes such as but not necessarily limited to, powerlines, telephone lines, canals, ditches, pipelines, and roads, including the construction, operation, and maintenance thereof unless it has first determine[d] that such uses are compatible with the purposes for which these areas are established. 16 U.S.C. 668dd(d)(1)(B). The statute also requires that existing incompatible uses be eliminated as soon as possible. It explicitly requires the Secretary to provide for the elimination or modification of any use as expeditiously as practicable after a determination is made that the use is not a compatible use. 16 U.S.C. 668dd(d)(3)(B)(vi). The statute requires USFWS to reevaluate existing uses whenever conditions under which the use [was] permitted change significantly, or there is significant new information regarding the effects of the use, but not less frequently than every 10 years, to ensure that the use remains a compatible use. 16 U.S.C. 668dd(d)(3)(B)(vii). Projects such as transmission lines with easements extending more than 10 years are still to be reevaluated at least every 10 years, but only to examine compliance with the terms and conditions of the authorization, not examine the authorization itself. Id. The 1997 Act says [c]ompatibility determinations in existence on October 9, 1997, shall remain in effect until and unless modified, 16 U.S.C. 668dd(d)(3)(A)(iv), but conspicuously does not grandfather in existing incompatible uses anywhere. The 1997 Act also established a much clearer standard for compatibility. Compatible use is now defined as: [A] wildlife-dependent recreational use or any other use of a refuge that, in the sound professional judgment of the Director, will not materially interfere with or detract from the fulfillment of the mission of the System or the purposes of the refuge. 16 U.S.C. 668ee(1) (emphasis added). Sound professional judgment, in turn, is defined as a determination or decision that is consistent with principles of sound fish and wildlife management and administration, available science and resources, and adherence to the requirements of [the Improvement] Act and other applicable laws. 16 U.S.C. 668ee(3). The regulations adopt the same general definitions as the statute. 50 C.F.R. 25.12, 29.21; see generally Final Compatibility Regulations Pursuant to the National Wildlife Refuge System Improvement Act of 1997, 65 Fed. Reg. 62,458 (Oct. 18, 2000). The policy USFWS adopted at that same time, Final Compatibility Policy Pursuant to the National Wildlife Refuge System Improvement Act of 1997, 65 Fed. Reg. 62,484 (Oct. 18, 2000), largely incorporated into part 603 of the USFWS Manual, fws.gov/policy/manuals, contains the same general definition as well, but the policy also adds a number of substantive clarifications to the compatibility definition. First, it squarely places the burden of proving compatibility on applicants: Compatibility, therefore, is a threshold issue, and the proponent[s] of any use or combination of uses must demonstrate to the satisfaction of the Refuge Manager that the proposed use[s] pass this threshold test. The burden of proof is on the proponent to show that they pass, not on the Refuge Manager to show that they surpass. 603 FW 2.11.B(1), 65 Fed. Reg. at 62,489. And it makes clear that in the incomplete information situation, the applicant will not have met its burden of proof. If information available to the Refuge Manager is insufficient to document that a proposed use is compatible, then the Refuge Manager would be unable to make an affirmative finding of compatibility, and we must not authorize or permit the use. 603 FW 2.11.E; 65 Fed. Reg. at 62,490. Second, the rules and policy emphasize that proposed economic uses for a Refuge are to receive stricter scrutiny than uses that support wildlife conservation or wildlife-dependent recreation. As the rules provide: We may only authorize public or private economic use of the natural resources of any national wildlife refuge . . . where we determine that the use contributes to the achievement of the national wildlife refuge purposes or the National Wildlife Refuge System mission. 50 C.F.R. 29.1 (emphasis added). That section of the rules then states that economic use includes but is not limited to grazing livestock, harvesting hay and stock feed, removing timber, firewood or other natural products of the soil, removing shell, sand or gravel, cultivating areas, or engaging in operations that facilitate approved programs of national wildlife refuges. Id. (emphasis added). This proposed high-voltage transmission line is, of course, a purely economic use that would do nothing to contribute to wildlife conservation or wildlife-dependent recreation. Third, the Policy expressly requires Refuge managers to complete a review of indirect and cumulative impacts, considering both other existing and likely future proposed uses: The Refuge Manager must consider not only the direct impacts of a use but also the indirect impacts associated with the use and the cumulative impacts of the use when conducted in conjunction with other existing or planned uses of the refuge, and uses of adjacent lands or waters that may exacerbate the effects of a refuge use. 603 FW 2.11.B(3); 65 Fed. Reg. at 62,489.1 1 E.g. future high-voltage transmission lines crossing the Refuge.	USFWS has reviewed all public comments submitted for the draft compatibility determination contained in FEIS Appendix J. USFWS has found the proposed transmission line ROW across the Refuge, as described in the FEIS as Alternative 6 and described in the ROW application from ITC and Dairyland, to be compatible. See ROD Appendix B for the signed compatibility determination.
Driftless Area Land Conservancy	Granneman	REF01	Mike Hughlett, Minnesota Utilities Will Study if the $2B CapX2020 Grid Improvements Were Enough, StarTribune (Aug. 19, 2019), http://www.startribune.com/minnesota-utilities-will-study-if-the-2b-capx2020-grid-improvements-wereenough/554442792/ (describing likely CapX2050 project to expand existing CapX2020 transmission lines).	Comment noted.

Organization	Commenter Last Name	Comment Code(s)	Comment on FEIS	Agency Response to Comment
Driftless Area Land Conservancy	Granneman	DECI09	Fourth, the Policy prohibits using compensatory mitigation to make a proposed use compatible. Refuge managers may not allow incompatible uses on Refuge land in exchange for applicant commitments to provide additional wildlife habitat elsewhere. We will not allow compensatory mitigation to make a proposed refuge use compatible. . . . If the proposed use cannot be made compatible with stipulations we cannot allow the use. 603 FW 2.11.C; 65 Fed. Reg. at 62,489. Fifth, the Policy takes a very strong position against permitting habitat fragmentation: Fragmentation of the National Wildlife Refuge Systems wildlife habitats is a direct threat to the integrity of the National Wildlife Refuge System both today and in the decades ahead. Uses that we reasonably may anticipate to reduce the quality or quantity or fragment habitats on a national wildlife refuge will not be compatible. 603 FW 2.5.A; 65 Fed. Reg. 62, 486. Consistent with that, the USFWS Manual states unequivocally that [i]t is the policy of the Service to discourage the types of uses embodied in right-of-way requests. On areas in the National Wildlife Refuge System (System) if a right-of-way cannot be certified as compatible with the purposes for which a unit was established, it cannot be granted without authorization by Congress. Manual, 340 FW 3.3.	USFWS has reviewed all public comments submitted for the draft compatibility determination contained in FEIS Appendix J. USFWS has found the proposed transmission line ROW across the Refuge, as described in the FEIS as Alternative 6 and described in the ROW application from ITC and Dairyland, to be compatible. See ROD Appendix B for the signed compatibility determination.
Driftless Area Land Conservancy	Granneman	DECI09 WLDLF03	To their credit, the Refuge managers who prepared the draft Compatibility Determination did not attempt to argue or even suggest that the CHC Project could pass the compatible use test if it were a new project. It is clear that the proposed CHC Project would significantly negatively impact and interfere with the purpose of the Refuge. As Kevin Foerster, former supervisor for the Upper Mississippi River Refuge, outlined in a letter related to a prior high-voltage transmission line proposal: By their nature, right-of-ways and some construction projects can cause habitat fragmentation; reduce habitat quality; degrade habitat quality through the introduction of contaminants; disrupt migration corridors; alter hydrology; facilitate introduction of alien, including invasive, species; and disturb wildlife. Proposed uses which would conflict with the legal requirement to maintain biological integrity, diversity and environmental health are not appropriate or compatible. Letter from Kevin Foerster, Refuge Supervisor to Stephanie Strength, RUS Environmental Protection Specialist (Feb. 23, 2012) (Attachment A). Construction and operation of a new high voltage transmission line would certainly cause many, if not all, of these impacts.	USFWS has reviewed all public comments submitted for the draft compatibility determination contained in FEIS Appendix J. USFWS has found the proposed transmission line ROW across the Refuge, as described in the FEIS as Alternative 6 and described in the ROW application from ITC and Dairyland, to be compatible. See ROD Appendix B for the signed compatibility determination.
Driftless Area Land Conservancy	Granneman	DECI09 WLDLF02	The likely frequency of fatal bird collisions is especially concerning considering that the CHC Project would run east-west across the north-south Mississippi Flyway and the protection of migratory birds is the first statutory purpose of the Refuge. Consistent with that view, when first consulted about the CHC project, the current Refuge managers made it very clear that, although there are existing transmission lines crossing the Refuge, those uses are incompatible and potential applicants could not meet the burden necessary to secure approval today. Minutes from a multi-agency meeting on September 18, 2012 reported as follows: Tim Yager [deputy Refuge manager] said that any proposed impact to the refuge would require demonstration of avoidance. Both Rich King [Driftless Area Refuge manager] and Tim Yager said the alternatives that have been discussed today were presenting minimization and mitigation measures. Tim said that the existing transmission lines were authorized many years ago and would likely not be permitted or considered a compatible use today. Tim said he is very uncomfortable with moving forward with only Cassville options being considered, since all of these alternatives have impacts to the refuge. Meeting Minutes, ATC Cardinal Bluffs Project Multi-Agency Meeting, at 6 (Sept. 18, 2012) (Attachment B).	USFWS has reviewed all public comments submitted for the draft compatibility determination contained in FEIS Appendix J. USFWS has found the proposed transmission line ROW across the Refuge, as described in the FEIS as Alternative 6 and described in the ROW application from ITC and Dairyland, to be compatible. See ROD Appendix B for the signed compatibility determination.
Driftless Area Land Conservancy	Granneman	ALT01 DECI09	Throughout this process, the Refuge managers have stated their strong preference that the CHC Project avoid crossing the Refuge if at all possible. During the scoping phase of the federal environmental review for the CHC project, the Environmental Protection Agency (EPA) took the same position that the project should not go forward without serious consideration of non-Refuge-crossing alternatives. Letter from Kenneth A. Westlake, Chief of NEPA Implementation Section, U.S. EPA Office of Enforcement and Compliance Assurance, to Dennis Rankin, Envtl. Specialist, U.S. Dept of Agriculture, Rural Utilities Service, at 2 (Jan. 6, 2017) (Attachment C).	Comment noted.

Organization	Commenter Last Name	Comment Code(s)	Comment on FEIS	Agency Response to Comment
Driftless Area Land Conservancy	Granneman	DECI09	The draft Compatibility Determination itself outlines many of the negative impacts that justify that position: (1) Negative visual impacts, significantly greater with the selected Nelson Dewey right-of-way; (2) Permanent disruption of forest succession patterns, especially for the young forest established by the Turkey River restoration project; and (3) The loss, degradation, and/or fragmentation of breeding, rearing, foraging, and dispersal habitats, and increased noise/vibration levels, especially during construction but also from maintenance activities. Likewise, the final environmental impact statement for the CHC project (the FEIS),2 currently out for comment, describes how the project will materially interfere with and detract from the Refuges purposes:3 Temporary or permanent removal, degradation, or alteration of vegetation within the Refuge (primary land cover class being wetland), FEIS at 157; Project will cross 15 identified wetlands, 41 acres within the ROW, including 27 acres of mature forested wetland, FEIS at 419; The Project will diagonally cross the Turkey River restoration area, resulting in habitat fragmentation of the restoration area. That habitat fragmentation will, according to the EIS, adversely impact forest interior species that need large contiguous tracts of forest to complete their life cycles. (The Turkey River restoration area is currently young forest, with the goal, at least before the CHC project, being a long-term restoration of the Turkey River floodplain so it can grow into bottomland forest within 100 years.), FEIS at 421; If the Project is approved, the existing low-voltage line along the Stoneman crossing ROW will be retired and revegetated, but it will take 25 to 50 years for the area to return to surrounding vegetative conditions, FEIS at 420; Adverse impact on recreational users, during construction and then permanently by altering the visual environment from an undeveloped landscape to a developed landscape, FEIS at 421; 2 Final Environmental Impact Statement for the Cardinal-Hickory Creek Transmission Line Project, Rural Utilities Service (Oct. 2019), available at https://www.rd.usda.gov/publications/environmental-studies/impactstatements/cardinal-%E2%80%93-hickory-creek-transmission-line. 3 The draft Compatibility Determination is based on Segment B-1A2, in the environmental impact statement, a version of the Nelson Dewey crossing. Long-term, major adverse impacts to scenic resources within the Refuge new transmission line structures and conductors which will dominate the landscape and detract from current user activities along Oak Road, and additional visual impacts to visitors, fishermen, and wildlife photographers as well as car ferry users in the area, FEIS at 422; New avian collision risk, particularly for larger species and in areas of dense bird congregations, such as migrating waterfowl corridors in the Mississippi Flyway. . . . Migratory waterfowl would be especially susceptible to transmission line collisions where the proposed transmission lines are near migration staging areas and natural flight corridors such as the Mississippi River. FEIS at 185. For all of those reasons, the draft Compatibility Determination does not attempt to deny the proposition that the CHC Project will indeed materially interfere with or detract from the Refuges purposes. There is likewise no suggestion that the CHC Project will somehow contribute to the Refuges purposes, or that applicants have in any way met their burden to prove that their proposal would be a compatible use. Under the 1997 Act, the rules, and the policy, then, that means the compatibility determination should be negative.	USFWS has reviewed all public comments submitted for the draft compatibility determination contained in FEIS Appendix J. USFWS has found the proposed transmission line ROW across the Refuge, as described in the FEIS as Alternative 6 and described in the ROW application from ITC and Dairyland, to be compatible. See ROD Appendix B for the signed compatibility determination.
Driftless Area Land Conservancy	Granneman	DECI09 LAND09	Analysis Claimed Exemption for Existing Rights-of-Way Instead of addressing the compatibility issue head on, the draft Compatibility Determination tries to avoid the issue by contending that Congress prohibited them from considering negative Refuge impacts, because this is only a reauthorization of an existing right-of-way. The draft relies almost entirely on an interpretation of a sentence in 50 C.F.R. 25.21(h), which reads When we prepare a compatibility determination for re-authorization of an existing right-of-way, we will base our analysis on the existing conditions with the use in place, not from a pre-use perspective. The draft interprets that sentence to mean [i]n other words, only modifications from the historic permitted use are to be analyzed. Draft Compatibility Determination at 9. Then, based on that interpretation, the draft attempts to minimize the size of the modification by making calculations about affected acreage. As the draft says, if one assumes that the entire existing right-of-way is successfully and completely restored instantly, and therefore can be subtracted from total affected acreage, there will in the end only be a net increase of 2.5 acres of affected habitat with the new right-of-way. And the draft says applicants have agreed to provide compensatory mitigation with habitat on land now in private ownership.4 4 This despite the USFWSs express policy against using compensatory mitigation to reach a positive compatibility finding. That interpretation and application of the rule is simply incorrect. First, the CHC project is not a re-authorization of an existing right-of-way. It is an entirely new right-of-way, in a different location, on different property. It is much larger than the existing right-of-way; 260 feet wide instead of 150 feet, nearly 75% wider. Unlike the existing right-of-way, it travels through the Turkey River restoration area, a Refuge priority and significant financial commitment, just as new trees are getting established. It will involve towers up to 195 feet high, more than double the height of the current 161-kV towers, and wider H-shaped towers instead of the single-pole towers that currently exist. The proposed use will be more intensive two 345 kV high-voltage lines instead of two lower-voltage 69 kV and 161 kV lines. And, instead of smaller lines near the end of their useful life, the Refuge will feel the impacts of the larger lines for at least the next 60 years. That is not a reauthorization of an existing use. That is permitting a new use, or, at best, permitting applicants to dramatically expand, renew, or extend an existing use. 16 U.S.C. 668dd(d)(3)(A)(i). In either case, the Act requires a full compatibility determination. Nor can this Project somehow be characterized as routine maintenance of an existing right-of-way. The USFWS Manual does say that maintenance of an existing right-of-way can include minor expansion or minor realignment to meet safety standards. 603 FW 2.11.D. But the examples provided are truly minor: expand the width of a road shoulder to reduce the angle of the slope, expand the area for viewing on-coming traffic at an intersection; and realign a curved section of a road to reduce the amount of curve in the road. Id. Granting a new right-of-way 260 feet wide on different land, 110 feet wider than any existing right-of-way in the area, for high-voltage transmission towers, two of which will be nearly 200 feet high, designed to last for 60 years is considerably less minor than expanding the width of a road shoulder to make it safer. There are, of course, no safety standards at issue here. This is a proposed large scale, stand alone construction project, pure and simple, that has no connection whatsoever to any reasonable concept of maintenance.	USFWS has reviewed all public comments submitted for the draft compatibility determination contained in FEIS Appendix J. USFWS has found the proposed transmission line ROW across the Refuge, as described in the FEIS as Alternative 6 and described in the ROW application from ITC and Dairyland, to be compatible. See ROD Appendix B for the signed compatibility determination.

Organization	Commenter Last Name	Comment Code(s)	Comment on FEIS	Agency Response to Comment
Driftless Area Land Conservancy	Granneman	DECI09 LAND09	Second, by its own terms, it is not at all clear that 50 C.F.R. 25.21(h) applies to this situation at all. Subsection (h) is about compatibility re-evaluations not initial compatibility determinations. The 1997 Act directs USFWS to reevaluate compatibility determinations at least every 10 years to account for new information and experience. There is no evidence, however, that the existing transmission line ROW the Stoneman ROWever went through a compatibility determination evaluation under the terms of either the 1966 Act or the 1997 Act. The existing lines were built back in the 1950s. Consequently, there is no existing compatibility determination to reevaluate, and subsection (h) simply does not apply. The statutes language does not permit any other interpretation. Section 668dd(d)(3)(A)(iv), which is the only provision that addresses what would be grandfathered in makes it clear that only compatibility determinations would be, not all preexisting uses. The existing transmission line ROW is almost certainly one of the incompatible uses that drove the GAO report in 1989, U.S. Govt Accountability Office, GAO-RCED-89-196, National Wildlife Refuges: Continuing Problems with Incompatible Uses Call for Bold Action (1989), https://www.gao.gov/assets/150/148073.pdf. GAO-RCED-89-196, and led to the passage of the Act in 1997, the kind of incompatible use the 1997 Act was intended eventually to eliminate.	USFWS has reviewed all public comments submitted for the draft compatibility determination contained in FEIS Appendix J. USFWS has found the proposed transmission line ROW across the Refuge, as described in the FEIS as Alternative 6 and described in the ROW application from ITC and Dairyland, to be compatible. See ROD Appendix B for the signed compatibility determination.
Driftless Area Land Conservancy	Granneman	DECI09 LAND09	Third, while the legislative history of the 1997 Act suggests a concern about eliminating existing rights-of-way, H.R. Rep. 105-106, at 13 (1997), there is no evidence that Congress intended to give existing right-of-way easement or permit holders the right to continue their incompatible uses in perpetuity. There is certainly no evidence that Congress intended to allow right-of-way holders to expand and extend their otherwise incompatible uses of Refuge property. The key term is existing. If USFWS were to order the existing low-voltage transmission line at Cassville torn down before the easements expire, without recompense, the owners would have a legitimate beef. Nothing in that House Report suggests, however, that easement holders have a permanent right, not only to keep their easements, but also to expand or extend them, or to swap them for new easements in new locations.	USFWS has reviewed all public comments submitted for the draft compatibility determination contained in FEIS Appendix J. USFWS has found the proposed transmission line ROW across the Refuge, as described in the FEIS as Alternative 6 and described in the ROW application from ITC and Dairyland, to be compatible. See ROD Appendix B for the signed compatibility determination.
Driftless Area Land Conservancy	Granneman	DECI09 EFF04	Fourth, USFWS policy flatly prohibits using compensatory mitigation like the applicants proposal to restore the Stoneman ROW (and create habitat on private property elsewhere) to justify a project. 603 FW 2.11.C. Even if this project could be reasonably characterized as maintenance of an existing right of way, which it cannot, USFWS policy sets minimum requirements that have not been met here, particularly the requirement that all restoration work be completed before any new easement is recorded: We will not make a compatibility determination and will deny any request for maintenance of an existing right-of-way that will affect a unit of the National Wildlife Refuge System, unless (1) the design adopts appropriate measures to avoid resource impacts and includes provisions to ensure no net loss of habitat quantity or quality; (2) restored or replacement areas identified in the design are afforded permanent protection as part of the national wildlife refuge or wetland management district affected by the maintenance; and (3) all restoration work is completed by the applicant prior to any title transfer or recording of the easement, if applicable. 603 FW 2.11.D. Here, as the draft freely acknowledges, achieving no net loss of habitat will require the restoration of the Stoneman ROW and the unidentified private property to succeed, a result which may not be achievable at all, but which will certainly involve a process that will likely take decades to complete.	USFWS has reviewed all public comments submitted for the draft compatibility determination contained in FEIS Appendix J. USFWS has found the proposed transmission line ROW across the Refuge, as described in the FEIS as Alternative 6 and described in the ROW application from ITC and Dairyland, to be compatible. See ROD Appendix B for the signed compatibility determination.
Driftless Area Land Conservancy	Granneman	DECI09	Fifth, the drafts interpretation cannot be reconciled with analogous zoning law principles governing nonconforming uses. The general rule, of course, is that any right to continue a nonconforming use use that violates the zoning code but is grandfathered in does not include a right to expand or enlarge it. Patricia E. Salkin, Expansion of Nonconforming Use, 2 Am. Law of Zoning 12.19 (2019). As the Iowa Supreme Court explained: The prohibition against expanding or enlarging a non-conforming use defends against the growth of a pre-existing aggravation. That pre-existing aggravation, the non-conforming use, survives as a matter of grace. The public is not required to expand upon that grace to its increasing aggravation Perkins v. Madison Cty. Livestock & Fair Assn, 613 N.W.2d 264, 270 (Iowa 2000) (citing Stan Moore Motors, Inc. v. Polk County Bd. Of Adjustment, 209 N.W.2d 50, 53 (Iowa 1973)). To the extent a zoning ordinance allows expansion of nonconforming uses, the rule is to construe that strictly against the owner, consistently with the policy of restraining and eventually eliminating nonconforming uses. Rathkopf et al., Zoning Treatment of Nonconforming Uses, 4 Rathkopfs The Law of Zoning and Planning 73.16 (4th ed., 2019). When the proposal uses more land than the existing use, or increases the height of structures, or proposes to use a different parcel of land, the courts have uniformly rejected the idea that the owner has a right to the modification. Id. At 73.18, 73.22, 73.25. The USFWSs authority to prohibit uses that are not compatible with Refuge purposes works very much like a zoning ordinance. Like a zoning code, the goal is to eventually eliminate incompatible uses. The 1997 Act differs with the typical zoning ordinance by expressly requiring incompatible uses to be eliminated as soon as practicable, but even to the extent preexisting rights-of-way are allowed to remain for the length of their easement terms, nothing allows them to be expanded or enlarged. Reading the rules in any other way would mean that the Service would be forced to allow transmission lines, pipelines, and roads now crossing Refuges, not only to serve out their useful life or their easement terms, but to expand whenever the owners want, even to build on different property, and to expand in perpetuity. That is not what Congress intended in 1997. What Congress intended was that, when a proposal came in to expand or extend an existing use in a Refuge, the Refuge managers would treat it just like a proposal for a new use. They would assess whether the applicants had proven that their proposed use would not materially interfere with or detract from the Refuges purposes, 16 U.S.C. 668ee(1), or, in the case of a proposed economic use, that the proposed use would contribute[] to those purposes, 50 C.F.R. 29.1. If the applicants could not meet their burden of proof, the application would be denied.	USFWS has reviewed all public comments submitted for the draft compatibility determination contained in FEIS Appendix J. USFWS has found the proposed transmission line ROW across the Refuge, as described in the FEIS as Alternative 6 and described in the ROW application from ITC and Dairyland, to be compatible. See ROD Appendix B for the signed compatibility determination.

Organization	Commenter Last Name	Comment Code(s)	Comment on FEIS	Agency Response to Comment
Driftless Area Land Conservancy	Granneman	DECI09	The CHC project would impose a new incompatible use on a part of our nations public lands system that needs more, not less, protection. This draft Compatibility Determination sets a terrible precedent by granting old right-of-way easement or permit holders a permanent right to shelter huge new construction projects bearing no resemblance to the original projects from the strict application of the 1966 and 1997 Refuge Acts. A river valley migratory bird refuge should be the last place not the first placeto build huge new transmission lines. Establishing this precedent will do yet more damage to wildlife habitat and wildlife-dependent pursuits in our National Wildlife Refuge System. That is not what Congress intended; that is not something USFWS should allow, nor is it something that the USFWS has the legal authority to allow. USFWSs duty under the statute is to ensure that the biological integrity, diversity, and environmental health of the System are maintained, 16 U.S.C. 668dd(a)(4)(B), not to find ways to accommodate the kind of incompatible economic activities that drove passage of the statute in the first place. For all of the reasons set forth in these comments, the Service should withdraw its draft Compatibility Determination and reject the project proponents application.	USFWS has reviewed all public comments submitted for the draft compatibility determination contained in FEIS Appendix J. USFWS has found the proposed transmission line ROW across the Refuge, as described in the FEIS as Alternative 6 and described in the ROW application from ITC and Dairyland, to be compatible. See ROD Appendix B for the signed compatibility determination.
Environmental Law & Policy Center	Dunham	DECI09	The Environmental Law & Policy Center (ELPC), as represented by its attorneys, hereby joins the comments on the U.S. Fish and Wildlife's Draft Compatibility Determination for the Cardinal-Hickory Creek high-voltage transmission line filed yesterday on behalf of the Driftless Area Land Conservancy, Wisconsin Wildlife Federation, National Wildlife Refuge Association, and Defenders of Wildlife. ELPC fully adopts these comments as its own.	Comment noted.
Fresh Energy; Iowa Audubon; Iowa Environmental Council; Minnesota Center for Clean Energy	Gleckner; Harr; Johannsen; Vohs	DECI09	We are writing to support the major findings and conclusions of the draft compatibility determination for the Cardinal-Hickory Creek Transmission Line Project (Project) to use a portion of the Upper Mississippi River National Wildlife and Fish Refuge (Refuge) for realignment of utility right-of-way. We have evaluated the options for the Project to cross the Mississippi River since 2013, early in the siting and routing process. We are familiar with the major studies evaluating routing options and Mississippi River crossing options, including the Alternative Crossings Analysis, Macro-Corridor Study, and federal Final Environmental Impact Statement as well as routing studies filed with the Iowa Utilities Board and Public Service Commission of Wisconsin. We agree with the major outcome of each study, which finds that the use of existing transmission right-of-way through the Refuge to Cassville, Wisconsin is the preferable crossing option.	Comment noted.
Fresh Energy; Iowa Audubon; Iowa Environmental Council; Minnesota Center for Clean Energy	Gleckner; Harr; Johannsen; Vohs	DECI09 LAND09	The specific route proposed through the Refuge would shift this existing right-of-way slightly and, so doing, would consolidate several land uses in a single area, including the Project, a service road, a ferry landing and parking lot, and a privately-owned agricultural field. This option is known as the Nelson-Dewey right-of-way or crossing, which we support. By consolidating these land uses and removing the utility right-of-way in a more naturalized area of the Refuge (Stoneman right-of-way), the Project can reduce habitat fragmentation and provide benefits to the Refuge. Use of existing transmission right-of-way to co-locate the Project also prevents introduction of a new transmission crossing in the Refuge or elsewhere over the River. We appreciate that the draft compatibility determination recognizes these benefits and would allow the Project to move forward using the Nelson Dewey right-of-way. The determination states that, for example, Restoration of the Stoneman right-of-way would result in reduced habitat fragmentation and restoration of larger contiguous blocks of habitat. Draft Compatibility Determination at 14. The determination further states that Over the long-term (30 to 50 years), a net reduction in habitat fragmentation would occur on the floodplain of the Turkey River. A more contiguous array of habitats would exist on the floodplain as a result of realigning the rightof-way. Id.	Comment noted.
Fresh Energy; Iowa Audubon; Iowa Environmental Council; Minnesota Center for Clean Energy	Gleckner; Harr; Johannsen; Vohs	NEP02	The Project is critical to expanding the use of renewable energy in the Midwest region, which offers a range of important environmental and economic benefits. The relationship of the Project to renewable energy and many of the resulting benefits are identified in the Final Environmental Impact Statement, to which the draft compatibility determination is included as an appendix.	Comment noted.
Fresh Energy; Iowa Audubon; Iowa Environmental Council; Minnesota Center for Clean Energy	Gleckner; Harr; Johannsen; Vohs	DECI09	The route for the Project including the use of the Refuge to cross the Mississippi River has been studied exhaustively. We appreciate the work of the U.S. Fish & Wildlife Service to require and conduct a robust analysis of the impacts and benefits to the Refuge of this right-of-way, and we support the draft conclusion that the use is compatible. We encourage the U.S. Fish & Wildlife Service to issue a timely final compatibility determination that, consistent with the draft compatibility determination, supports use of the Refuge for the Nelson Dewey right-of-way realignment and allows the Project to proceed with this preferable crossing option for the River as part of the overall route.	Comment noted.
	Greenberger	DECI09	Evening, Attached please find a letter from the National Audubon Society joining comments submitted by the Environmental Law & Policy Center (ELPC), the Driftless Area Land Conservancy (DALC), the Wisconsin Wildlife Federation (WWF), the National Wildlife Refuge Association (NWRA) regarding the draft compatibility determination for the proposed crossing of the Upper Mississippi National Wildlife and Fish Refuge by the new Cardinal-Hickory Creek 345-kilovolt transmission line.	Comment noted.

Organization	Commenter Last Name	Comment Code(s)	Comment on FEIS	Agency Response to Comment
	Greenberger	DECI09	COMMENT ON DRAFT COMPATIBILITY DETERMINATION UPPER MISSISSIPPI NATIONAL WILDLIFE AND FISH REFUGE CARDINAL-HICKORY CREEK HIGH-VOLTAGE TRANSMISSION LINE The National Audubon Society submits this letter in order to join and incorporate by reference the full comments submitted by the Environmental Law & Policy Center (ELPC), the Driftless Area Land Conservancy (DALC), the Wisconsin Wildlife Federation (WWF), the National Wildlife Refuge Association (NWRA) regarding the draft compatibility determination for the proposed crossing of the Upper Mississippi National Wildlife and Fish Refuge (the Refuge) by the new Cardinal-Hickory Creek 345-kilovolt transmission line (CHC Project). We agree that contrary to the draft Compatibility Determination, the CHC project (1) cannot meet the requirements for a compatible use under the National Wildlife Refuge System Administration Act of 1966, as amended by the National Wildlife Refuge System Improvement Act of 1997, 16 U.S.C. 668dd-668ee; and (2) cannot be justified as merely a realignment or minor extension or expansion of an existing transmission line right-of-way. We agree that allowing the CHC Project to proceed through the Upper Mississippi Refuge sets a dangerous precedent that could be used to enable construction of new infrastructure that would expand or extend to additional Refuge land in perpetuity. That is contrary to both the letter and spirit of the 1966 and 1997 statutes. And so like our colleagues from the ELPC, DALC, WWF and NWRA, we urge that the draft Compatibility Determination be withdrawn, and that the joint Application for Transportation and Utility Systems and Facilities on Federal Lands from applicants ITC Midwest and Dairyland Power Cooperative be denied. Thank you for the opportunity to join the comments of our colleague organizations.	USFWS has reviewed all public comments submitted for the draft compatibility determination contained in FEIS Appendix J. USFWS has found the proposed transmission line ROW across the Refuge, as described in the FEIS as Alternative 6 and described in the ROW application from ITC and Dairyland, to be compatible. See ROD Appendix B for the signed compatibility determination.
Wisconsin's Green Fire	Larson	NEP01	II. ENVIRONMENTAL RULES, Federal EIS process for the proposed CHC, Permits: The American Transmission Company (ATC), International Transmission Company, ITC Holdings, and Dairyland Power Cooperative, hereafter referred to as the Applicants, have proposed construction of the CHC 345 kV hvtl from Dubuque County, Iowa to Middleton, Wisconsin. The proposed CHC would extend over 100 miles. The proposed CHC is subject to federal Environmental Impact Statement (EIS) review through the U.S. Department of Agriculture and Wisconsin review through the Wisconsin Public Service Commission (PSC). An EIS for the project is directed by the Wisconsin Environmental Policy Act (WEPA), s. 1.11 Wis. Stats., and the National Environmental Policy Act (NEPA). The final federal EIS (FEIS) has been prepared and comments are being solicited. The proposed CHC area is referred to as the analysis area in the FEIS. The FEIS is available at https://www.rd.usda.gov/publications/environmentalstudies/ impact-statements/cardinal-%E2%80%93-hickory-creek-transmission-line The Rural Utilities Service Commission (RUS) is serving as the lead federal agency for NEPA review of the CHC. The U.S. Fish and Wildlife Service (USFWS), U.S. Army Corps of Engineers (USACE), and U.S. Environmental Protection Agency (USEPA) are cooperating federal agencies. The National Park Service is serving as a participating agency. Several agencies will use the FEIS to inform decisions about funding, authorizing, or permitting various components of the proposed CHC Project. RUS will evaluate whether or not to provide financial assistance for Dairyland Power Cooperatives portion of the project. The USFWS will evaluate the Applicants request for a right-of-way (ROW) easement and a Special Use Permit to cross the Upper Mississippi River National Wildlife and Fish Refuge. The USACE will review a ROW request and permit applications as required by Section 10 and Section 408 of the Rivers and Harbors Act and Section 404 under the Clean Water Act. RUS regulations (7 CFR 1970.5 (b)(3)(iii)) require the Applicants to develop and document reasonable alternatives that meet their purpose and need while improving environmental outcomes. (FEIS Executive Summary). NEPA requires agencies to assess the direct, indirect, and cumulative impacts of the alternatives carried forward for detailed analysis. Potential impacts were identified and evaluated for each aspect of the natural and built environments in the FEIS. Potential impacts to the resources listed are disclosed in the following Sections of the FEIS: geology and soils (3.2), vegetation, including wetlands and special status species (3.3), wildlife, including special status species (3.4), water resources and quality (3.5), air quality and climate change (3.6), noise (3.7), transportation (3.8), cultural and historic resources (3.9), land use, including agriculture and recreation (3.10), visual quality and aesthetics (3.11), socioeconomics and environmental justice (3.12), public health and safety (3.13), and the Upper Mississippi River National Wildlife and Fish Refuge (3.14). WGF comment: The RUS has not followed all portions of NEPA regarding the proposed CHC because the RUS has not specifically and thoroughly assessed the direct, indirect, and cumulative temporary and long term impacts of the alternatives carried forward for detailed analysis in the FEIS concerning the proposed CHC.	The FEIS for the proposed C-HC Project provides a comprehensive and thorough disclosure of potential impacts to the human and natural environment. The FEIS complies with NEPA.
Wisconsin's Green Fire	Larson	DECI07	PERMITS: Section 404 of the Clean Water Act (CWA) established a permit program for the discharge of dredged or fill material into wetlands. This permit program is jointly administered by the USACE and the USEPA. The USACE will need to determine which method for obtaining a Section 404 permit applies to the CHC Project: authorization under a Nationwide Permit (NWP), authorization under a regional general permit, or issuance of an individual permit. The USACEs evaluation of a Section 10 permit and Section 14 permission under the Rivers and Harbors Act and a Section 404 permit under the CWA involves multiple analyses, including: 1) evaluating the CHC impacts in accordance with NEPA, 2) determining whether the CHC Project is contrary (Section 10 and possibly Section 14) to the public interest, and 3) in the case of the Section 404 permit, determining whether the CHC complies with the requirements of the CWA. The issuance of a ROW easement would require an application to the USACE Real Estate branch that demonstrates the project has no viable alternative except to use public lands and has a demonstrated need. The CHC would be reviewed to determine if it is consistent with Mississippi River Project purposes, consistent with the Mississippi River Project Master Plan, and meets applicable laws and guidance. WGF requests the RUS and the USACE thoroughly address the need for granting these federal permits and easements for the proposed CHC.	FEIS Section 1.5 describes the purpose of and need for Federal action, including the potential issuances of Federal funding, permits, and easements.
Wisconsin's Green Fire	Larson	LAND01	III. PUBLIC TRUST LANDS AND WATERS affected by proposed CHC: The preferred or alternate routes of the proposed CHC would run through southwest Wisconsin's Driftless Area unique ecoregions and sensitive scenic landscapes, and would affect the ecologic, recreational, cultural, agricultural, tourism, and economic resources along either proposed route. Refer to the FEIS for specific proposed route alternatives. According to the U.S. Department of Agriculture, the Driftless Areas diversity of habitat provides critical habitat for dozens of species of concern in the Wisconsin State Wildlife Action Plans, and has been cited as one of North Americas most important resources. (U.S. Department of Agriculture, Regional Conservation Partnership Program, Investing in Wisconsin-2016, Driftless Area-Habitat for the Wild and Rare).	Comment noted. Potential adverse impacts from the proposed C-HC Project are disclosed in FEIS Chapters 3 and 4.

Organization	Commenter Last Name	Comment Code(s)	Comment on FEIS	Agency Response to Comment
Wisconsin's Green Fire	Larson	WAT02	A. PUBLIC TRUST SURFACE WATERS: Public trust surface waters in Wisconsin that would be crossed are identified in Section 3.5.1.1 of the FEIS. Waters designated by the Wisconsin Department of Natural Resources (WDNR) as Outstanding Resource Waters or Exceptional Resource Waters (WAC Chapter NR 102.10 and Chapter NR 1.02.11) are surface waters that provide outstanding recreational opportunities, support valuable fisheries and wildlife habitat, have good water quality, and are not significantly impacted by human activities. There are approximately 89 Outstanding Resource Waters and Exceptional Resource Waters within the Wisconsin portion of the CHC analysis area, including 10 that are within 150 feet of, or crossed by, the proposed CHC under one or more of the alternatives (FEIS Section 3.5.1.4). These Wisconsin surface waterways include: the Mississippi, Galena, Grant, Little Platte, Platte, Pecatonica, and Sugar Rivers; the Beetown, Bonner, Dodge, Furnace, McCartney, Mill, Mineral Point, Moore, Mounds, Sudan, and Whig Branches; East Branch of the Pecatonica and West Branch of the Sugar Rivers; Badger Hollow, Black Earth, Blockhouse, Boice, Deer, Garfoot, Gordon, Laxey, Martinville, Mill, Lowery, Otter, Pigeon, Rattlesnake, Vermont, and White Hollow Creeks; East and West Branches of Blue Mounds Creek; and Fryes Feeder. The CHC analysis area also includes Black Hawk, Cox, Halverson, and Twin Valley Lakes in Iowa County, and Stewart Lake in Dane County, Wisconsin. Additional surface waters found throughout the CHC analysis area include scattered small farm ponds, retention basins, and sediment basins (FEIS Section 3.5.1.1). The USACE defines traditional navigable water as a regulated Water of the United States (WUS). Section 10 of the Rivers and Harbors Act of 1899 (33 CFR 322) requires authorization from USACE for the construction of any structure in or over traditional navigable WUS. This includes transmission lines. The Mississippi River in Iowa and Wisconsin and the Pecatonica River in Wisconsin are the two traditional navigable WUS in the analysis area. At the Mississippi River in Cassville, Wisconsin, a rebuild and relocation of the existing transmission line crossing to accommodate the new 345-kV CHC line and Dairylands 161-kV transmission line would be needed. WGF comment: The RUS has not thoroughly evaluated both the temporary construction and permanent impacts to these public trust traditional navigable Waters of the United States and other surface waterways in the FEIS.	FEIS Section 3.5 discloses potential impacts to water resources and quality, including impacts to surface water. Furthermore, temporary and permanent impacts to waterways from the C-HC Project will be evaluated through other Federal and state permitting activities. The USACE has reviewed the impacts to WUS as part of its permitting activities under the Clean Water Act and Rivers and Harbors Act. IDNR will need to issue Sovereign Lands Construction Permit for any construction activities involving meandered sovereign rivers, including the Mississippi River. In Wisconsin, documentation and coordination with the WDNR is required for Outstanding or Exceptional Waters to demonstrate the proposed project meets the requirements of the antidegradation rule (WAC Chapter NR 207).
Wisconsin's Green Fire	Larson	WAT01	B. TROUT STREAMS: Designated trout streams in the Wisconsin CHC analysis area are numerous. Trout generally require cold water streams with low sediment loads, stable and consistent flow, high diversity of aquatic habitat, and good water quality. Trout streams provide recreational opportunities and are an important environmental and economic resource. There are approximately 198 Class I and II trout streams in the CHC analysis area (FEIS Section 3.5.1.4). Sixty-eight of the streams are considered Class I trout streams. Class I trout streams are typically smaller streams with high-quality trout fishing, can support naturally reproducing trout populations, and do not require stocking from a hatchery. These high-quality Class I trout streams are most often associated with headwaters and the uppermost reaches within a watershed. Approximately 130 streams in the CHC analysis area are Class II trout streams. Class II streams may support some natural reproduction of trout but are not capable of maintaining a sustainable trout population without restocking from a hatchery. Class II streams have good survival and carry-over of adult trout, often producing some larger-than average fish. Two Class I trout streams and 18 Class II trout streams are within 150 feet of the CHC proposed alternatives. WGF comment: The RUS has not thoroughly evaluated both temporary construction and permanent impacts to these important public trust trout streams in the FEIS. The RUS has not fully addressed the major concerns of potential impacts to trout streams and introduction of invasive species in the FEIS. Sediment in trout streams is an issue when it covers invertebrate food production areas and trout spawning redds by preventing adequate oxygen exchange. Even a very fine layer of silt can prevent eggs from receiving adequate oxygen for embryo development, potentially decreasing annual recruitment. The most critical times are from early October when spawning begins until mid-April when the eggs begin to hatch.	FEIS Section 3.5 discloses potential impacts to trout streams, including potential sedimentation and change in water temperature due to streambank vegetation removal. FEIS Section 3.3 discloses potential impacts from the invasive species.
Wisconsin's Green Fire	Larson	WAT01	There is also the potential to introduce aquatic invasive species by crossing heavy equipment through the many streams and rivers along the lengthy proposed corridor. Species such as the New Zealand mud snail, zebra mussels, Eurasian water milfoil and Myxobolus cerabalis (a parasite fatal to salmonids) have all been known to "hitchhike" from one water body to another by inadequate cleaning of boats, waders and other equipment.	FEIS Section 3.1, Table 3.1-4, includes the following environmental commitment, “Before moving construction equipment and material between waterway construction locations where equipment or materials are placed below the OHWM of a waterway, standard inspection and disinfection procedures would be incorporated into construction methods as applicable (see WAC NR 329.04(5)).”
Wisconsin's Green Fire	Larson	VEG04	C. WETLANDS: Wetlands are relatively scarce in the Driftless Area and for that reason, the significance of wetland functional values is higher. Plant communities should be surveyed using methods such as the DNRs Timed Meander and Floristic Quality Assessment methods. Assessment should be done using DNRs Rapid Wetland Assessment Methodology, v. 2. (https://dnr.wi.gov/topic/wetlands/methods.html) Wetland functional values include floristic integrity; human use values which includes natural scenic beauty, endangered and threatened species, cultural and other uses; wildlife and aquatic life habitat; floodplain and water quality functions; shoreline anchoring; and groundwater processes. WGF comments: The FEIS does not thoroughly address wetland functional values, as well as the potential impacts to these values. A thorough assessment would evaluate direct, secondary and cumulative impacts. All wetlands potentially impacted have not been identified, surveyed and assessed; and direct, indirect, and cumulative impacts have not been adequately addressed in the FEIS.	FEIS Section 3.3 discloses the potential impacts to wetlands from the proposed C-HC Project. The FEIS also discloses environmental commitments and mitigation measures that would be required as part of the Federal decisions. The environmental commitments listed in FEIS Table 3.1-4 and FEIS Appendix I, the Federal Mitigation Plan, will be included in the ROD for the C-HC Project. These measures will be required and enforced under the Federal agencies’ decisions.
Wisconsin's Green Fire	Larson	VEG04	According to the FEIS, potential impacts to wetlands from the CHC would include fill activities from structure construction, tree clearing, and construction of access roads and staging areas. Wetland fill activities due to structure placement and associated grading, and construction activities are considered permanent impacts resulting in wetland loss. Wetlands within the CHC ROW and adjacent areas may be indirectly impacted by construction, operation, and maintenance activities. Indirect impacts are changes in wetland quantity or quality that are reasonably foreseeable due to the direct or permanent impact to wetlands such as permanent fill or tree clearing in forested wetlands. According to the FEIS, indirect impacts of the CHC likely include increased sediment deposition in nearby wetlands, alteration of long-term wetland hydrology, and residual effects resulting from fragmentation of wetland habitats that span the ROW. Fragmenting wetland habitats can affect adjacent areas by increasing edge habitat and altering light regimes, ultimately driving changes in wetland species composition and function. With respect to species composition, noxious weeds and other invasive species would also potentially be introduced and spread through ground disturbances and transfer by equipment (FEIS Section 3.1, Table 3.1-4; Section 3.3.1.2, Table 3.3-1). WGF Comment: The following FEIS statement is not an adequate treatment of wetland impacts: all unavoidable impacts to wetlands, whether temporary or permanent, will be discussed with the USACE, Iowa DNR, and WDNR prior to construction to determine the permitting requirements and conditions necessary for construction activities involving wetland impacts.	FEIS Section 3.3 discloses the potential impacts to wetlands from the proposed C-HC Project.

Organization	Commenter Last Name	Comment Code(s)	Comment on FEIS	Agency Response to Comment
Wisconsin's Green Fire	Larson	LAND08	D. PUBLIC TRUST LANDS: Public trust lands on the proposed CHC routes as identified in the FEIS include federal and state lands (FEIS Sections 3.10.1.3, 3.10.3.1 - 3.5 and 3.7; and Section 3.10.1.4.3). Federal management: Upper Mississippi River National Wildlife and Fish Refuge and Ice Age National Scenic Trail. State management: Blue Mound Governor Dodge State Parks; Trails Military Ridge and Pecatonica; Blackhawk Lake Recreation Area; Remnant Fishery Habitat Little Platte River; Otters Creek Fishery Area; Black Earth Creek Wildlife Area, Thompson Memorial Prairie, Erbe Grassland Preserve, Pleasant Valley Conservancy, Ridgeway Pine Relict, Wyoming Oak Woodland and Savanna, Ihm Driftless Area, Thomas Driftless Area; Military Ridge Prairie Heritage Area; Southwest Wisconsin Grassland and Stream Conservation Area. The FEIS states that proposed CHC routes would cause major temporary and permanent impacts to public trust lands including creating a new transmission line ROW and clearing of wooded areas which will change the character of the affected areas (FEIS Section 3.10.3.4, Table 3.10-34 and Table 3.10-35). WGF comment: The FEIS does not fully address the major concerns of potential adverse cumulative impacts from the proposed CHC to the public trust lands, specifically habitat fragmentation and degradation.	FEIS Section 3.10 discloses the potential impacts to recreation and natural areas that include Federal and state lands as well as conservation areas. Furthermore, Sections 3.3, 3.4, and 3.14 disclose the potential habitat fragmentation and degradation impacts from the proposed C-HC Project.
Wisconsin's Green Fire	Larson	VEG01	IV. NATURAL ECOSYSTEM COMMUNITIES affected by proposed CHC routes and Management Implications: According to the FEIS, all land cover types, except open water, would be permanently impacted as a result of the CHC (FEIS Section 3.10.3.1 and Table 3.10-30). The proposed CHC routes would fragment and impact rare ecosystem communities of the Driftless Area in Iowa and Wisconsin, and land cover types would be temporarily and permanently impacted as a result of the CHC (Sections 3.2.1, 3.2.1.4, 3.3; Wisconsin Department of Natural Resources Natural Heritage Inventory working list. https://dnr.wi.gov/topic/nhi/wlist.html). These rare natural ecosystems include pine relicts, grasslands of dry and dry-mesic, sand, and mesic or tallgrass prairie, and r algific talus slopes. Algific talus slopes are known only in the southwestern corner of the Driftless Area. They are unique and very sensitive ecosystems that have been protected to date due to the rarity of their existence. Four algific talus slopes have been identified in the CHC analysis area (FEIS Section 3.2; Iowa Geologic and Water Survey 2010; Wisconsin natural ecosystem communities. WDNR https://dnr.wi.gov/topic/EndangeredResources/Communities.asp?mode=detail&Code=CTFOR0 16WI).	Comment noted.
Wisconsin's Green Fire	Larson	WAT01	A. Water Drainageways: The unglaciated Driftless Area exhibits a classically branched stream pattern and steep slopes. Coldwater streams are concentrated in this area, and contain relatively few fish species dominated by trout and sculpins. Coolwater communities also occur in these areas and contain a moderately diverse fish fauna with a mix of coldwater and warmwater species. Hardwater springs are also associated with the Driftless Area. These springs are critical sources of groundwater for the cold and coolwater communities and habitat for several rare species. Wetlands are mainly associated with groundwater springs, seeps and coldwater streams, although floodplain forest and emergent marsh are major wetland types associated with larger stream systems like the Mississippi River. Southern sedge meadows are commonly associated with groundwater systems. They are considered vulnerable in Wisconsin due to a fairly restricted range, relatively few populations or occurrences, recent and widespread declines, threats, or other factors. High quality emergent marshes and floodplain forests are associated with large river systems and are increasingly rare due to the invasion and dominance of non-native species. (Wisconsin natural ecosystem communities. Wisconsin Department of Natural Resources https://dnr.wi.gov/topic/EndangeredResources/Communities.asp?mode=detail&Code=CTFOR0 16WI). WGF comment: The suggested mitigation efforts proposed in the FEIS resulting from habitat fragmentation and ensuing impacts of the CHC are inadequate for these sensitive and rare waterway drainages in the Driftless Area.	Comment noted.
Wisconsin's Green Fire	Larson	LAND01	B. Southwest Wisconsin Grassland and Stream Conservation Area (SWGSCA): SWGSCA is a WDNR landscape based initiative to work with a diverse group of partners to enhance functioning grassland, savanna, and stream ecosystems in southwest Wisconsin. SWGSCA is one of the best grassland conservation opportunities in the upper Midwest, and areas targeted for conservation in the 473,900 acre SWGSCA overlap with the CHC analysis area (FEIS Section 3.10.1.4.2). SWGSCA contains numerous prairie remnants of tallgrass prairie and oak savanna, and contains exceptional populations of grassland birds which are in serious decline across their range. The overall success of SWGSCA depends on coordinated work with many partners and private landowners, many of whom have been protecting and managing grasslands, farmlands, streams, and prairies in this area for years. Maintaining working farms on areas of prime agricultural land is a priority listed for SWGSCA (South West Wisconsin Grassland and Stream Conservation Area. Wisconsin Department of Natural Resources. Webpage https://dnr.wi.gov/topic/Lands/grasslands/swgrassland.html). The proposed CHC would cause land fragmentation, habitat damage and disruption from construction and maintenance of the line (FEIS Table 3.10-34 and Table 3.10-35). The Wisconsin DNR considers the Military Ridge Prairie Heritage Area within SWGSCA to be of utmost priority for landscape-scale grassland protection and management. The area has been identified by the Nature Conservancy as critical for the protection of Midwest prairie remnants and area sensitive species, including endangered and threatened grassland birds (The Nature Conservancy: The Places We Protect http://nature.org/ourinitiatives/regions/northamerica/unitedstates/wisconsin/placesweprotec t/priority-area-military-ridge-prairie-heritage-area. xmle). WGF comment: The proposed CHC would have cumulative impacts on the ecological health of the Driftless Area, including SWGSCA and Military Ridge Prairie Heritage Area. Habitat fragmentation and temporary and long term ensuing impacts to these areas have not been adequately addressed in the FEIS.	Comment noted. Potential adverse impacts from the proposed C-HC Project to the Southwest Wisconsin Grassland and Stream Conservation Area are disclosed in FEIS Section 3.10.
Wisconsin's Green Fire	Larson	LAND07 SOCIO05	C. Conservation Lands: Several conservation easements and parcels managed for land conservation occur within the CHC analysis area (FEIS Section 3.10.1.4.4 and Section 3.10.2.3.2). These lands include private conservation easements or those associated with agency conservation programs. Conservation lands are managed to maintain and enhance the health and diversity of habitats by working with landowners and organizations to protect and preserve areas through land management practices. Significant investments have been made in terms of funding and time by many government agencies and groups over the years for conservation of Driftless Area prairie lands and water resources. These groups include U.S. Department of Agriculture's Natural Resources Conservation Service, U.S. Fish and Wildlife Service, Farm Service Agency and Farm Bill programs, Wisconsin DNR, The Nature Conservancy, The Prairie Enthusiasts, Pheasants Forever, Driftless Area Land Conservancy, Trout Unlimited, and others. WGF requested that the FEIS economic evaluation include the value of conserved lands and the public and private investments to accomplish land and water conservation in the CHC analysis area. WGF requested that RUS include these economic conservation investments and present market value of the lands in the FEIS. This requested economic evaluation has not been thoroughly conducted. T	FEIS Section 3.10 describes the various types of conservation land uses, including private, state, and Federal programs that could potentially occur within the proposed C-HC Project analysis area. FEIS Section 3.10 states, “[Conservation] easements typically remain in private ownership and as such information about the specific location and scope of potential impacts to these resources is limited. The Utilities would coordinate with landowners and agencies administering conservation land programs on a site-by-site basis to minimize impacts to conservation lands and associated management of these properties.” At this time, it is not clear to RUS that the C-HC Project would be permitted to cross lands with certain conservation easements; therefore, it would be speculative to attempt to analyze impacts to these lands beyond the level of detail provided in the FEIS.

Organization	Commenter Last Name	Comment Code(s)	Comment on FEIS	Agency Response to Comment
Wisconsin's Green Fire	Larson	LAND07	The US Natural Resource Conservation Service program contains Conservation Reserve Program (CRP) lands. CRP lands are managed for environmental enhancements that reduce soil erosion, protect the Nations ability to produce food and fiber, reduce sedimentation in streams and lakes, improve water quality, establish wildlife habitat, and enhance forest and wetland resources. Impacts to CRP lands in the proposed CHC analysis area would primarily be financial, as each transmission structure could require that 0.1 acre be removed from the CRP contract. Additional impacts could result if the proposed project interferes with these CRP practices or causes land parcels to be removed from the contract (FEIS Section 3.10.2.3.2). A specific concern related to management is that prescribed burning and other restoration activities are likely to be restricted within the CHC analysis area. Land trusts, natural areas managers and others need to include regular prescribed burning regimes to support rare fire-dependent ecosystems. If this management action is restricted, important wetland, savanna and prairie areas will be degraded and these areas may not be eligible for CRP payments. Within the proposed CHC analysis area, CRP lands are present and potential CRP sites are located. WGF comment: The RUS has not thoroughly evaluated or addressed the potential adverse impacts to CRP lands in the FEIS.	FEIS Section 3.10 discloses the potential impacts to lands enrolled in the Conservation Reserve Program, stating that long-term moderate impacts could occur to resources from the proposed C-HC Project.
Wisconsin's Green Fire	Larson	DECI09	V. UPPER MISSISSIPPI RIVER NATIONAL FISH and WILDLIFE REFUGE: A compatible use is defined in 50 CFR 25.12(a) as, a proposed or existing wildlife dependent recreational use or any other use of a national wildlife refuge that, based on sound professional judgment, will not materially interfere with or detract from the fulfillment of the National Wildlife Refuge System mission or the purpose(s) of the national wildlife refuge. Refuge managers completed a written draft compatibility determination for the proposed CHC (FEIS Appendix J). Refuge managers are recommending approval for the proposed CHC to cross the Refuge at Cassville, Wisconsin. According to the USFWS this use is considered a minor realignment of an existing right-of-way to meet safety standards, and is consistent with 50 CFR 26.21 (c) which permits the use of replacement habitat to ensure no net loss of habitat quantity or quality. The Applicants agree to replace with like habitat and afford permanent protection by the Refuge a parcel which matches the acres and/or value impacted as part of the right-of way realignment, to the satisfaction of the Refuge manager. Refuge managers have said this could help reduce the overall impact of the CHC infrastructure by moving the right-of-way to areas already affected, and thus reduce habitat fragmentation. Refuge managers have said habitat fragmentation can have a negative impact on certain species ability to thrive and reproduce, and the proposed CHC construction could impact vegetation in the Refuge (https://www.wpr.org/wisconsin-environmental-groups-voice-concerns-over-federal-reviewcardinal- hickory-creek-line). WGF requests the USFWS reconsider the draft compatibility determination, and fully consider the cumulative impacts from the proposed CHC to the Refuge, specifically habitat fragmentation and degradation.	USFWS has reviewed all public comments submitted for the draft compatibility determination contained in FEIS Appendix J. USFWS has found the proposed transmission line ROW across the Refuge, as described in the FEIS as Alternative 6 and described in the ROW application from ITC and Dairyland, to be compatible. See ROD Appendix B for the signed compatibility determination.
Wisconsin's Green Fire	Larson	EFF04	PERMITS and MITIGATION: A Special Use Permit from the USFWS prior to construction on Refuge managed or owned lands would be needed. Under NEPA and the National Wildlife Refuge Improvement Act of 1997, major actions affecting the quality of the human environment require full consideration of potential impacts, public involvement, and an interdisciplinary approach to decision-making that considers a reasonable range or alternatives. The USFWS has authority and trust responsibility under the Endangered Species Act (ESA), the Bald and Golden Eagle Protection Act, and the Migratory Bird Treaty Act. USFWS would need to grant an easement across its lands within the Refuge for the proposed CHC. In addition to the USFWS and USACE permit application processes, the Applicants have developed a project-specific preliminary Federal mitigation plan (FEIS Appendix I). This preliminary mitigation plan would need to be deemed acceptable by the USFWS and USACE prior to the issuance of any permits. Mitigation is only required for certain wetland areas proposed to be filled. It is not required for the majority of adverse environmental impacts expected to occur including impacts to upland habitats and wildlife, degraded but not filled wetlands, areas invaded by non-native species, irreversible losses to rare communities and loss of restoration potential. WGF requests the RUS, USFWS, and USCAE thoroughly consider the issuance of the required federal permits and their impacts to the Refuge. Environmental concerns for the Refuge are extensive. Numerous temporary and permanent impacts to the Refuge are unavoidable. WGF contends that suggested mitigation actions resulting from habitat fragmentation and ensuing impacts of the CHC are inadequate for the Refuge.	The FEIS discloses potential impacts to resources in the Refuge as well as required mitigation to the ROW crossing the Refuge. As explained in FEIS Appendix I (Federal Mitigation Plan), “The USFWS and USACE have agreed that the total acres of any new ROW on the proposed routes through the Refuge would have to be replaced with like or better-quality habitat, preferably in a nearby area, to ensure no net loss.”
Wisconsin's Green Fire	Larson	WLDLF04	VI. PUBLIC TRUST WILDLIFE SPECIES affected by proposed CHC routes: There are numerous endangered, threatened, and special concern wildlife species who inhabit the biodiverse lands of the proposed CHC (Wisconsin Department of Natural Resources Natural Heritage Inventory working list. https://dnr.wi.gov/topic/nhi/wlist.html ; Wisconsin Wildlife Action Plan: Habitats. Wisconsin of Natural Resources. https://dnr.wi.gov/files/pdf/pubs/nh/nh0983_4_0-3.pdf). WDNR conducted an Endangered Resources desktop review within the analysis area and a surrounding 2-mile buffer, and identified records of 16 state endangered species and 24 state threatened species. RUS, in consultation with USFWS, identified eight species that are Federally listed as threatened or endangered that may occur in the CHC analysis area whooping crane, northern long-eared bat, rusty patched bumble bee, Hines emerald dragonfly, Iowa Pleistocene snail, Higgins eye pearly mussel, sheepnose mussel, and spectacle case mussel. It was determined that 117 special status species have been: 1) previously documented, 2) are likely present, or 3) are not known to occur, but for which suitable habitat is present within the CHC analysis area (FEIS Section 3.4.1.3.1 and Table 3.4-1). All of the proposed CHC routes cross a variety of terrain, vegetative communities, and habitat types used by the resident and migratory wildlife species. Construction and maintenance of any chosen alternative would result in long-term adverse impacts to habitats. Potential construction-related impacts common to all wildlife groups would include the loss, degradation, and/or fragmentation of breeding, rearing, foraging, and dispersal habitats; collisions with and crushing by construction vehicles; loss of burrowing animals and burrows; increased invasive species establishment and spread; and increased noise/vibration levels (FEIS Sections 3.3 and 3.4). Some of the endangered, threatened, and special concern wildlife species and potential impacts to their habitat from construction of the proposed CHC are discussed below. WGF comments: Potential adverse impacts to the wildlife species who may occupy the CHC analysis area should be thoroughly evaluated before federal permits required for construction are granted.	FEIS Section 3.4 discloses the potential impacts to wildlife species, including special status species, from the proposed C-HC Project.
Wisconsin's Green Fire	Larson	WLDLF04	Pollinators and other insects: 11 bumblebee species including the federally Endangered rustypatched bumble bee; State Endangered regal fritillary butterfly, Ottoe skipper, and Silphium borer moth; State Endangered Attenuipyga vanduzeei leafhopper, red-tailed prairie leafhopper; and State Threatened Issid planthopper. Potential or Probable CHC Affects to Pollinators: Direct impacts to pollinators and other insects could occur during active construction due to habitat degradation. Indirect impacts could result from construction through the removal of host plants and modification of suitable habitat, or from ongoing maintenance activities such as mowing or herbicide application that prevent a given species host plant from regrowth within the maintained ROW. Impacts to insects or their habitat are considered moderate and long term (FEIS Section 3.4).	Comment noted.

Organization	Commenter Last Name	Comment Code(s)	Comment on FEIS	Agency Response to Comment
Wisconsin's Green Fire	Larson	WLDLF04	Electric and magnetic fields associated with high-voltage power lines are suspected to affect honey bees. Several studies suggest that honey bees located underneath high-voltage electrical wires show elevated levels of aggression and have lower productivity (Wojcik, V.A. and S. Buchmann. 2012. A review of pollinator conservation and management on infrastructure supporting rights-of-way. Journal of Pollination Ecology-Cholula Special Issue: 7(3) 2012: 16- 26). The evidence strongly indicates that exposure of honey bees to electric and magnetic fields could lead to colony level stress and lower productivity at the colony level. Impacts to honey bees from electric and magnetic fields is considered moderate and long-term (FEIS Section 3.4).	Comment noted.
Wisconsin's Green Fire	Larson	WLDLF04	The federally Endangered rusty-patched bumble bee has been identified in 8 of the 11 townships in Iowa County, Wisconsin in the proposed CHC analysis area (FEIS Section 3.4). The USFWS prepared a Biological Opinion for the rusty-patched bumble bee. The USFWS determined that construction and operation of the proposed CHC is not likely to jeopardize the continued existence of the rusty patched bumble bee. No critical habitat has been designated for this species; therefore, none will be affected. (FEIS Appendix G).	Comment noted.
Wisconsin's Green Fire	Larson	WLDLF04	Reptiles: Turtles: State Endangered ornate box turtle; Species of Special Concern with protected status Blandings turtle, with Blandings turtle populations found in 6 of 16 Iowa County, Wisconsin township/ranges in the proposed CHC analysis area. Eleven species of turtle occupy the Refuge, including Blandings, painted, snapping, common map turtles, smooth and spiny softshells, Ouachita and false map turtles. Snakes: All the following Species of Special Concern: timber rattlesnake, North American blue-racer, black ratsnake, bull (gopher) snake, plains garter snake (FEIS Sections 3.3 and 3.4). Frogs: Blanchard's Cricket Frog populations have been identified in 8 of 11 Iowa County, Wisconsin township/ranges in the proposed CHC analysis area; pickerel frog populations have been recorded in 8 of 16 Iowa County, Wisconsin township/ranges. Nine species of frog and one toad species are known in the Refuge. Bullfrogs, boreal chorus frogs, and spring peepers are commonly found in and near wetland and open water habitats (FEIS Sections 3.3 and 3.4). Potential or Probable CHC Effects on Reptiles and Amphibians: The state-listed reptiles and amphibians with potential to occur within the CHC analysis area use a variety of habitat types. Direct impacts would occur if these habitats remain occupied during construction. Indirect impacts include permanent modification of suitable habitat, and degradation of suitable habitat through ongoing maintenance activities, including herbicide application. Reptile and amphibian species that shelter underground would be susceptible to being crushed by construction equipment. Potential construction impacts on reptiles would be long term and moderate. Impacts from operation and maintenance of the proposed CHC on reptiles would be long term and minor. Amphibians would be affected by any changes in water quality. Other impacts include erosion from ground disturbing activities, and spills or construction equipment hazardous material leakage. Areas of ground disturbance would be restored to the extent possible upon completion of construction activities. If restoration activities are successful, potential erosion would be minimized, however, if restoration activities are not successful, erosion could continue throughout the life of the CHC operation and maintenance, which would contribute to long-term impacts on water quality for amphibian species. In accordance with WDNR avoidance and minimization measures, reptile exclusion fencing would be installed in areas during the appropriate season where habitat is likely to support rare turtles, snakes, or salamanders (FEIS Section 3.4).	Comment noted.
Wisconsin's Green Fire	Larson	WLDLF04	Fish: 4 State Endangered species including bluntnose and crystal darters, goldeye, and pallid shiner; 6 State Threatened species recorded within 2 miles of the proposed CHC including black buffalo, blue sucker, Ozark minnow, paddlefish, river redhorse, and shoal chub. One-hundred nineteen fish species are known to use the Refuge including common sport fish such as walleye, sauger, white bass, large and smallmouth bass, channel catfish, northern pike, bluegill, and crappies, as well as non-sport fish such as sturgeon and paddlefish. Other aquatic species: 3 State Endangered mussel species including butterfly, Higgins-eye, and yellow and slough sandshell; 5 State Threatened mussel species have been recorded within 2 miles of the proposed CHC including ellipse, fawnsfoot, monkeyface, rock pocketbook, and wartyback. These mussel species can be found in a variety of stream types and differing microhabitats within perennial waters. There are 39 species of mussel considered present within the Refuge (FEIS Section 3.4). Potential or Probable CHC Effects on Fish and Other Aquatic Species: According to the FEIS, all aquatic sites would be spanned, and construction equipment would be kept out of flowing stream channels and active drainages to the extent possible to avoid directly impacting fish and other aquatic species habitat. Water withdrawal activities for construction would be scheduled to avoid spawning seasons, if possible. The Applicants would coordinate water withdrawal activities with the WDNR, therefore, impacts to state-listed fish and other aquatic species or their habitats are considered minor and temporary (FEIS Section 3.4). According to the FEIS, there are no anticipated impacts to federally listed mussel species or their habitats. Although the Hines emerald dragonfly is considered potentially present within the CHC analysis area, through coordination with the USFWS and WDNR it was determined it is likely absent from the analysis area, therefore, there are no anticipated impacts to the Federally Endangered Hines emerald dragonfly. The USFWS provided locations for potential suitable habitat for the Federally Endangered Iowa Pleistocene snail within the CHC analysis area. During field surveys by the Applicants, no suitable habitat was found. Direct effects to the Iowa Pleistocene snail are not anticipated. Vegetation removal may indirectly affect sensitive habitats. (FEIS Section 3.4.2.3.1 and Table 3.1-4). WGF comments: Construction on the scale of the proposed CHC would have profound impacts on aquatic species. WGF requests that all potential adverse impacts to the aquatic dependent species who occupy the CHC analysis area be thoroughly evaluated before any required federal construction permits are granted.	FEIS Section 3.4 discloses the potential impacts to aquatic species from the proposed C-HC Project.
Wisconsin's Green Fire	Larson	WLDLF04	Mammals: State Endangered northern long-eared bat, State Threatened eastern pipistrelle, big brown and little brown bats, and Species of Special Concern Franklin's ground squirrel, prairie and woodland voles. The American badger is a Wisconsin non-game protected species and an iconic mammal of the Driftless Area, which may experience population effects due to habitat disruption and degradation. Species typically dependent on wetland and open water habitats include muskrat, mink, beaver, and river otters. Other mammals likely present in the proposed CHC analysis area include white-tailed deer, coyote, red fox, raccoon, opossum, skunk, cottontail rabbit, red and gray squirrels, and numerous species of small burrowing rodents (FEIS Section 3.4.1.2.1). Potential or Probable CHC Affects to Mammals: According to the FEIS, potential impacts to mammals from the proposed CHC would result in long-term adverse impacts to habitats. Potential construction-related impacts would include the loss, degradation, and/or fragmentation of breeding, rearing, foraging, and dispersal habitats; collisions with and crushing by construction vehicles; loss of burrowing animals and burrows; increased invasive species establishment and spread; and increased noise/vibration levels (FEIS Sections 3.3 and 3.4). WGF comments: The FEIS inadequately considers adverse potential habitat impacts to mammals who occupy the proposed CHC analysis area. Several of these mammal species are habitat specialists, dependent on high quality grassland and/or undisturbed aquatic ecosystems.	FEIS Sections 3.3 and 3.4 disclose the potential impacts to habitats, including grasslands and aquatic systems, as well as wildlife species, from the proposed C-HC Project.

Organization	Commenter Last Name	Comment Code(s)	Comment on FEIS	Agency Response to Comment
Wisconsin's Green Fire	Larson	WLDLF04	BAT impacts from the proposed CHC routes: To date, White Nose Syndrome (WNS; Pseudogymnoascus destructans) is conservatively estimated to have killed more than seven million hibernating bats in 25 U.S. states and six Canadian provinces. Bat population declines of >80 % in the northeastern U. S. have recently been reported (Reynolds, H.T. et al. 2015. Modeling the environmental growth of Pseudogymnoascus destructans and its impact on the white-nose syndrome epidemic. J Wildl Disease Vol. 51, No. 2, pp. 318-331.). WNS is present in cave dwelling bats in Wisconsin (White Nose Syndrome. Wisconsin Department of Natural Resources. https://dnr.wi.gov/news/Weekly/Article/?id=4254). A bat hibernation cave approximately 0.3 miles from the proposed CHC route is monitored by the DNR for WNS (Stanfield, J.D. personal observation 8 Dec 2018. in: To PSC of Wisconsin Scoping Input to EIS for Docket 5-CE-146. Application for building the Cardinal-Hickory Creek (CHC) High Voltage Transmission Line (HVTL)). All efforts to protect bats and reverse population declines are critically important. Any efforts to reduce or eliminate additional compensatory and/or additive mortality should be employed. The proposed CHC routes would increase bat mortality (FEIS Section 3.4). The State listed bat species hibernate in caves, mines, and human-made structures during the winter. During the summer they forage in and near forested areas, over water, and other riparian habitat. They roost in trees and human-made structures singly or in colonies. The proposed CHC analysis area contains suitable roosting and foraging habitat for the State Endangered northern long-eared bat within the forested areas. Clearing of trees would be required under all alternatives. Direct mortality could result from clearing occupied roost trees. Tree removal activities during the pup season, the time of year when juveniles are unable to fly and therefore maternity colonies are most sensitive would have profound population affects. Removal of roosting and foraging habitat can degrade the existing suitable habitat within the analysis area. Direct long term impacts to all the State listed bat species could occur if occupied roosts are felled. Indirect moderate impacts could result from permanent modification of suitable roosting and foraging habitat. Modification to foraging habitat could result in changes to insect prey abundance and variety, degrading its quality (FEIS Section 3.4). Noise associated with construction, maintenance, and operation of the proposed CHC may cause an indirect effect on bats. Construction and maintenance noise and increased human activity may indirectly disrupt bats and cause them to flush from daytime roosts or potentially leave the area. Auditory disruption from the corona generated by the energized transmission line may potentially cause indirect effects for bats. Electric corona results when high-voltage lines ionize the air around the lines. This air also then becomes a conductor and an audible hissing sound can be heard. Corona is more prevalent near sharp corners in the line, nicks or scrapes in the line, when snow/rain/frost is on the line, or around bird flight diverters (Avian Powerline Interaction Committee, [APLIC 2012] Webpage https://www.aplic.org/). To minimize adverse impacts to the northern long-eared bat, the Applicants have stated they will implement species specific environmental commitments (FEIS Table 3.1-4). WGF comments: The FEIS inadequately considers adverse impacts to the State Endangered northern long-eared bat, and State Threatened eastern pipistrelle, big brown and little brown bat populations, especially in light of recent deleterious impacts to cave-dwelling bats from the fungal disease White Nose Syndrome. Construction impacts on the scale of the proposed CHC would have profound effects on the State listed bat species. WGF requests that all potential adverse impacts to bat species be thoroughly evaluated before any required federal construction permits are granted. WGF requests that the Applicants be required to implement and follow species specific environmental commitments.	FEIS Section 3.4 discloses the potential impacts to bat species, including state and federally listed species, from the proposed C-HC Project. Furthermore, the USFWS Biological Opinion (see FEIS Appendix G) considered potential impacts to the northern long-eared bat. Environmental commitments specific to northern long-eared bat are provided in Table 3.1-4.
Wisconsin's Green Fire	Larson	WLDLF04	Birds are dependent on lands in the proposed CHC analysis area during winter, migration, and nesting seasons. The proposed CHC would affect important bird nesting habitat. Confirmed nesting species: State Endangered peregrine falcon and yellow-throated warbler; State Threatened Henslows sparrow, Acadian flycatcher, upland sandpiper, Bells vireo, redshouldered hawk, and cerulean, hooded, and Kentucky warblers; Species of Special Concern grasshopper, lark, and vesper sparrows, bobolink, dickcissel, eastern meadowlark, Northern bobwhite, eastern whip-poorwill, common nighthawk, red-headed woodpecker, prothonotary warbler, and American woodcock. Federally protected bald eagles had over 121 confirmed nests in 2018 in the 4 Wisconsin counties along the proposed CHC routes. Over 160 species of songbird have been documented within the Refuge (FEIS Section 3.4.1.2.2). These confirmed nesting data are part of the long-term Wisconsin Breeding Bird Atlas Survey II (Wisconsin Breeding Bird Atlas II. Season 4 preliminary results and trends. https://ebird.org/atlaswi/news/season-4-preliminary-results-and-stats). Data are collected by trained observers and entered into a world-wide database (eBird Status and Trends. https://ebird.org/science). These data are significant, and should be considered when making decisions about important bird nesting habitat in the Driftless Area. Potential or Probable CHC Affects to Birds: According to the FEIS, potential impacts to birds from the proposed CHC would result in long-term adverse impacts to habitats. Potential construction-related impacts would include the loss, degradation, and/or fragmentation of breeding, rearing, foraging, and dispersal habitats; collisions with and crushing by construction vehicles; loss of burrowing animals and burrows; increased invasive species establishment and spread; and increased noise/vibration levels (FEIS Sections 3.3 and 3.4). Additional impacts to bird species outside the ROW would occur and would include disturbance from noise, changes in behavior, nest abandonment, and changes to habitat use. Noise-related construction activities could affect nesting, roosting, and foraging activities. Raptors would be especially susceptible to noise disturbance early in the breeding season, when it can cause nest abandonment and failure. Habitat loss may occur for forest-dwelling bird species, causing temporary displacement of local populations during construction and a permanent loss of habitat within the ROW. Forest fragmentation occurs when linear corridors are cleared through large contiguous tracts of woodland habitat. Woodland nesting birds may experience a loss of habitat or decreased nesting success as construction and maintenance activities may result in altered vegetation characteristics, availability of preferred food sources, increased nest competition, nest parasitism, or predation (FEIS Sections 3.3 and 3.4). WGF comments: The FEIS inadequately considers adverse potential habitat impacts to birds who occupy the proposed CHC analysis area. Several of these vulnerable bird species are habitat specialists, dependent on high quality grassland, and/or undisturbed forest and/or aquatic ecosystems.	FEIS Sections 3.3 and 3.4 disclose the potential impacts to habitats, including grasslands, forests, and aquatic systems, as well as bird species from the proposed C-HC Project.

Organization	Commenter Last Name	Comment Code(s)	Comment on FEIS	Agency Response to Comment
Wisconsin's Green Fire	Larson	WLDLF04	Whooping cranes are a Federally listed Endangered species. Whooping cranes in Wisconsin are part of the Nonessential Experimental Population (Whooping Crane Eastern Partnership [WCEP] 2018, Federal Register USFWS 2001). The FEIS includes the recent known observations of whooping cranes and their use of the Refuge within the CHC analysis area. The FEIS discounted whooping crane use on the Refuge as uncommon, and stated the proposed CHC would likely not affect the whooping crane population (FEIS Section 3.4.1.3.1). However, whooping cranes themselves are uncommon. There is only an estimated WCEP population as of May 1, 2018 of 102 individual birds (WCEP 2018). Whooping cranes have been confirmed in 2018 in northeast Iowa, western Wisconsin, central and southcentral Wisconsin using wetland stopover habitat. Whooping cranes migrate from the southern United States to nesting grounds between March and May, and begin migration back to their wintering grounds in September. During migration they use wetland stopover habitat along their migration corridor, completing migration in 2 to 4 weeks (WCEP 2018). Whooping cranes recently used the Refuge as likely wetland stopover habitat. Three 2 year old whooping cranes spent summer 2019 in Sauk County, Wisconsin for the first time, in a wetland area northeast and just outside the proposed CHC analysis area. Researchers see the Eastern Flyway population, which includes the cranes in Wisconsin, as critically important because it is key to bringing the species out of its endangered status via natural reproduction. The three Sauk County cranes practiced making nests over the summer, a precursor activity to pair bonding and breeding behavior. The International Crane Foundation (ICF) is cautiously optimistic about whooping crane natural reproduction trending upwards. After many years of seeing no whooping cranes hatched and raised by their own species in the wild in Wisconsin, ICF recorded two wildhatched fledglings in 2017, five in 2018 and three in 2019. Whooping cranes produced naturally in the wild have outnumbered the parent-reared birds raised in captivity in the last two years. Also, 11 captive birds raised at ICF were released into the wild in 2017, 4 were released in 2018, and 2 were released in 2019. Natural reproduction is key to having a self-sustaining population that overcomes any natural deaths. There would need to be at least 10 wild-hatched whooping cranes each year to achieve this population goal (https://www.wiscnews.com/search/?l=25&sd=desc&s=start_time&f=html&t=article%2Cvideo %2Cyoutube%2Ccollection&app=editorial&k=%23bnr&q=Baraboo+crane+group%3A+This+year +marked+first+time+whooping+cranes+made+Sauk+County+their+summer+home+SUSAN+EN DRES+sendres%40wiscnews.com+Nov+20%2C+2019+). Whooping cranes can experience direct impacts through collision with transmission lines or structures during their migration. With an endangered species population of only 102 birds, every individual is critical to the population. Whooping crane wetland stopover habitat, or potential nesting habitat, in the proposed CHC analysis area may be adversely modified by construction or degraded during construction (FEIS Section 3.4.1.3.1). WGF comments: For the reasons stated above, the FEIS evaluation of whooping crane impacts is not adequate. WGF identifies the need to evaluate potential impacts to the Wisconsin whooping crane population. WGF requests that RUS and USFWS consult available current pertinent research, studies, observations, other data and resources to provide an accurate assessment of whooping crane use of the proposed CHC analysis area and the Upper Mississippi River National Wildlife and Fish Refuge.	FEIS Section 3.4 discloses the potential collision with transmission lines impacts to whooping crane from the proposed C-HC Project. Additionally, the USFWS Biological Opinion (see FEIS Appendix G) considered potential impacts to the whooping crane, resulting in a no effect determination.
Wisconsin's Green Fire	Larson	WLDLF01	VII. AVIAN AND BAT impacts from the proposed CHC routes: Birds are critically important, as they provide key ecosystem services through pollination, and insect and weed-seed control for the agribusiness and forest products industries. Over the past 40 years grassland bird populations have been steadily declining in Wisconsin, resulting in many being listed as state Species of Greatest Conservation Need. Almost all are classified as such because habitat suitable for their survival has decreased, been degraded, or fragmented below their tolerance and ability to adapt and sustain viable populations (Wisconsin Breeding Bird Atlas II. https://wsobirds.org/images/atlas/SSS_Threatened_Grassland_Birds. pdf). Creating and maintaining habitat for grassland birds is imperative to their survival. The Bird Conservation Area (BCA), within the SWSGCA, was created to maintain sustainable breeding populations of grassland birds (South West Wisconsin Grassland and Stream Conservation Area. Bird Conservation Area, description and map. Wisconsin Department of Natural Resources. https://dnr.wi.gov/topic/Lands/grasslands/swgrassland.html). The entire BCA, and the birds who depend on this habitat in the Driftless Area, would be affected by the proposed CHC due to habitat reduction, degradation, and/or fragmentation. Winter is an extreme survival period for birds. Data sets of expert winter bird observations reveal the crucial nature of quality winter habitat for birds in the proposed CHC analysis area (Christmas Bird Count, Wisconsin Society of Ornithology. https://wsobirds.org/christmas-birdcount). A recent study found that southwest Wisconsin forests have warmer microclimates that help songbirds survive winter weather. Fragmented forests are less effective at dampening climate extremes, and increase bird mortality (Forest islands offer refuge to wintering birds. University of Wisconsin News. February 2017. TYRRELL, K. WEBPAGE https://news.wisc.edu/forestislands- offer-refuge-to-wintering-birds/). The proposed CHC would create forest and other habitat fragmentation (FEIS Section 3.1.2.2). WGF comments: The FEIS has not included a robust evaluation of habitat fragmentation and its potential adverse effects on grassland nesting birds or winter bird survival in the proposed CHC analysis area. The proposed CHC would weaken existing microclimates and threaten winter bird survival in the proposed CHC analysis area.	FEIS Sections 3.3 and 3.4 discloses the potential impacts to habitats and wildlife from the proposed C-HC Project.

Organization	Commenter Last Name	Comment Code(s)	Comment on FEIS	Agency Response to Comment
Wisconsin's Green Fire	Larson	WLDLF04	Mortality events would occur to all wildlife species along the proposed CHC routes. Bat and bird mortality from the proposed CHC routes would occur. The proposed CHC would present the potential for avian collisions with the transmission line, particularly for larger species and in areas of dense bird congregations, such as migrating waterfowl corridors in the Mississippi Flyway (APLIC 2012; FEIS Section 3.4). Under high wind, fog, or poor light conditions, avian collisions with the transmission line may occur. Migratory waterfowl would be especially susceptible to transmission line collisions where the proposed transmission lines are near migration staging areas and natural flight corridors such as the Mississippi River (FEIS Section 3.4). Colocating with existing transmission line creates only an incremental elevation in existing collision risk, whereas construction of a new and separate ROW creates a new collision risk on the landscape (APLIC 2012). Electrocutions of large avian species, particularly raptors, have been known to occur from contact with energized lines. Electrocutions are primarily due to the close vertical or horizontal separation of conductors and other equipment often found in distribution lines (APLIC 2012). The APLIC has developed several guidance documents that contain conservation measures for reducing impacts to bird and bat populations. Estimated impacts to birds from powerline collisions may number from 8 to 57 million bird deaths annually based on recent sensitivity analysis and a meta-review of studies (Loss S.R. et al. 2014. Refining estimates of bird collision and electrocution mortality at power lines in the United States. PLoS One 9(7). https://doi.org/10.1371/journal.pone.0101565). Design standards for the proposed CHC would meet avian-safe guidelines as outlined by APLIC. The Applicants would develop a project specific Avian Protection Plan to minimize avian electrocution risk. Electrocution impacts from operation of the line would be permanent. The proposed CHC project-specific Avian Protection Plan would also include an eagle management plan to ensure that impacts to eagles were minimized. Eagle nest surveys would be conducted prior to construction activities, and the Applicants would coordinate with the appropriate agencies to minimize impacts to nearby nesting eagles (FEIS Section 3.4.1.2.5 and Table 3.1-4; Appendix I, CHC Project Federal Mitigation Plan). WGF comments: The FEIS has not included a robust evaluation of potential adverse impacts to the Federally Endangered whooping crane population from avian transmission line collisions or electrocutions within the proposed CHC analysis area, especially on the Refuge. WGF requests the RUS and USFWS conduct this evaluation for the whooping crane in the proposed CHC analysis area.	FEIS Section 3.4 discloses the potential collision with transmission lines impacts to whooping crane from the proposed C-HC Project. Additionally, the USFWS Biological Opinion (see FEIS Appendix G) considered potential impacts to the whooping crane resulting in a no effect determination.
Wisconsin's Green Fire	Larson	WLDLF01	In addition to direct impacts, birds, bats, and other species are impacted by the indirect effects of transmission and distribution lines. The proposed CHC would increase these indirect mortality effects for all species. These indirect effects include the introduction of barriers to movement, habitat fragmentation, site avoidance or abandonment, disturbance, loss of population vigor, behavioral modification, creation of suboptimal or marginal habitats, loss of refugia, and intraspecific and interspecific competition for resources. Most of these indirect effects are difficult to quantify, difficult to separate from other impacts, and for the most part have not been quantitatively tested, critically reviewed, and published in refereed journals (Manville, A.M. II. 2013. Anthropogenic-related bird mortality focusing on steps to address human caused problems. Invited, peer-reviewed white paper for Anthropogenic Panel 5th International Partners in Flight Conf. August 27, Snowbird, UT.Div Mig Bird Mgt, USFWS, pp 1 16. and Manville, A.M. 2016. Chapter 20: Impacts to Birds and Bats Due to Collisions and Electrocutions from Some Tall Structures in the United States: Wires, Towers, Turbines, and Solar ArraysState of the Art in Addressing the Problems. http://www.electronicsilentspring.com/wp-content/uploads/2016/01/chp_10.1007_978-3-319- 22246-2_20.pdf). WGF comments: the FEIS inadequately addressed indirect mortality. WGF requests the RUS and USFWS thoroughly consider direct and indirect avian and bat mortality from the proposed CHC. WGF requests that the Applicants be required to implement and employ robust conservation measures to reduce impacts to bird and bat populations.	FEIS Section 3.4 disclosed the potential impacts to bird and bat species from the proposed C-HC Project. The FEIS also discloses environmental commitments and mitigation measures that would be required as part of the Federal decisions. The environmental commitments listed in FEIS Table 3.1-4 and FEIS Appendix I, the Federal Mitigation Plan, will be included in the ROD for the C-HC Project. These measures will be required and enforced under the Federal agencies' decisions.
Wisconsin's Green Fire	Larson	SOCIO03	VIII. TOURISM and OUTDOOR RECREATIONAL OPPORTUNITES affected by the proposed CHC: Wisconsin's tourism industry accounted for $20.6 billion of Wisconsin's economy and supported 195,255 jobs in 2017 (Tourism is Big Business for Wisconsin Communities. S. Klett Jul 27 2018 Superior Telegram, https://www.superiortelegram.com/opinion/columns/4478123- tourism-big-business-wisconsin-communities). Tourism and recreation could be negatively affected by the proposed CHC (FEIS Sections 3.10.2.3.3, 3.11, and 3.12; Table 3.12-8). The Driftless Areas tourism supports robust local economies comprised of hundreds of outdoor recreation based small businesses whose economic livelihoods would be affected in the CHC analysis area (The Driftless Explorer, A Free Travel Guide to the Area https://issuu.com/newspublishinginc./docs/driftless_explorer_for_website_lowe). The Driftless Areas tourism and recreational pursuits thrive on clean air, clear water and natural ecosystems. Many people participate in extensive outdoor recreational opportunities including hiking, biking, birding, skiing, hunting, trout fishing, camping, car touring, and other pursuits (https://dnr.wi.gov/topic/Lands/Grasslands/documents/swgscatour.pdf). The Military Ridge State Trail attracts more than 3000 bike riders per year. Feeding, photographing, and watching birds is a $32 billion/year U.S. recreational industry (Carter, E. 2013. Birding in the United States: demographic and economic analyses. USFWS Rep 20111:116). Many people come to the Driftless Area, especially the SWGSCA and the Refuge, specifically for birding. Recreational areas would be negatively affected by the CHC (FEIS Section 3.10.1.3). Impacts to recreation areas would include disruption of activities from construction and movement of construction materials and workers. Impacts to recreational users would include industrial noise from construction activities, increase in traffic from construction vehicles, equipment and workers, dust from construction activities, wildlife disruption, and view shed enjoyment. Permanent impacts to recreation areas and recreational users would occur in limited areas within the proposed CHC analysis area. Recreational opportunities and pursuits would no longer be permitted in the footprints of the towers and substation. WGF comments: The FEIS does not include a robust or thorough economic evaluation of potential adverse impacts to the tourism and recreation opportunities within the proposed CHC analysis area. WGF requests the RUS conduct this evaluation.	The FEIS Section does address and disclose potential impacts to tourism, recreation, and other land uses. FEIS 3.12 discloses the potential impacts to tourism from the proposed C-HC Project. FEIS Section 3.11 discloses potential impacts to visual quality and aesthetics. FEIS Section 3.10 discloses potential impacts to land use, including agriculture and recreation.

Organization	Commenter Last Name	Comment Code(s)	Comment on FEIS	Agency Response to Comment
Wisconsin's Green Fire	Larson	NEP02	IX. NEED for the proposed CHC: The purpose of an EIS is to identify potential environmental impacts, including cost, need, and other economic impacts. An EIS examines whether a project is in the public interest, and examines potential impacts to the land, flora, fauna, and water resources. It also evaluates if there are viable alternatives (WEPA/NEPA Code of Federal Regulations s.1506.1, FEIS Executive Summary). WGF comment: The FEIS did not establish need, cost-effectiveness, public benefits, or public savings to electric ratepayer, and thus the proposed CHC project is not necessary. All electric ratepayers in Wisconsin would pay for the proposed CHC through increased costs on their electric bills. Clean energy, energy conservation and local, decentralized, renewable energy generation is available without the proposed CHC.	RUS has determined that the purpose and need for the Federal action are supported (see EIS, Chapter 1). The State of Wisconsin approved the project through the PSCW and WDNR EIS process (PSCW 2019b). The Federal EIS does not consider alternatives in the same manner as the PSCW or IUB. The Federal agencies are required to comply with NEPA. As stated in NEPA regulations 40 CFR 1502.23, “For purposes of complying with the Act, the weighing of the merits and drawbacks of the various alternatives need not be displayed in a monetary cost-benefit analysis and should not be when there are important qualitative considerations.” As discussed in EIS Chapter 2, Section 2.2.2, non-transmission and low-voltage alternatives are not responsive to the applications to which the Federal agencies are responding, nor do they meet the six-point purpose and need described in EIS Chapter 1. The Federal EIS considers alternatives that are ripe for Federal consideration. What that means is that a proposal has been made for those alternatives or that it is reasonably foreseeable that they could be implemented in a time frame that would meet the need for the Federal action. Requirements for alternatives consideration under Wisconsin Statute 196.491(d) are very specific and separate from NEPA. Per their jurisdictional responsibilities, the PSCW considered if and how the range of alternatives meets those requirements (see Section 1.2.2.1 of PSCW [2019]).
Wisconsin's Green Fire	Larson	ALT04	The trend of decreasing electricity use is the result of the increasing use of non-transmission alternatives (NTAs), which cost far less than capital utility additions, and are twice as effective at reducing CO2 (EIA Form 861 https://www.eia.gov/electricity/data/eia861/ Table 4. Assessment of Electric Demand and Supply Conditions, Monthly Non-Coincident Peak Demands, MW, WI PSC Strategic Energy Assessment 2024). The Department of Energy recently determined that 50% of electricity generation associated CO2 reduction realized since 2005 resulted from NTAs. (https://www.eia.gov/todayinenergy/detail.php?id=37392). Cost effective and environmentally effective NTAs include pole replacements, targeted load management, energy efficiency rebates to affected areas, and adding community solar to prolong the lifespan of transformers and conductors where possible. WGF comment: The FEIS does not adequately consider alternatives to building the proposed CHC. The FEIS dismisses several different options for substituting the proposed CHC by evaluating these options individually rather than performing a comprehensive review of a combination of these alternatives that would be significantly less expensive and have less environmental impact (FEIS Executive Summary). These options include low-voltage, distributed energy, and/or energy efficiency alternatives.	FEIS Section 2.2.2 provides rationale for not carrying forward non-transmission, lower-voltage, and underground alternatives for detailed analysis.
Wisconsin's Green Fire	Larson	NEP02	Wisconsin PSC staff engineers used an unbiased economic analysis and found that the proposed CHC would not deliver economic benefits to all Wisconsin ratepayers in 8 of 11 future scenarios they evaluated. They determined that over the next 20 years, approximately 20% of Wisconsin transmission lines will be rebuilt and/or have their lifespans extended with NTAs, and rebuilding these older lines would double the amount of power each can transport. PSC staff engineers developed an alternative to the proposed CHC entitled the Base with Asset Renewal Alternative (BWARA). The BWARA alternative provides all of the essential features the proposed CHC is said to provide at a cost of only $900,000, which is roughly 0.3% of the lowest cost estimate for the CHC including financing over 40 years. BWARA calls for making scheduled rebuilds of seven existing smaller scale transmission line components a few years ahead of schedule. These rebuilds would deliver matching reliability and economic benefits, and leave $65 million to spend on NTAs. BWARA would out-perform the proposed CHC under any examined future scenario if the unspent millions were invested in NTAs (Surrebuttal Testimony of Alexander J. Vedvik, Using the CBM methodology, the base with asset renewal produced gross energy cost savings to Wisconsin transmission customers of approximately $2.02 million. Using the APC methodology, the base with asset renewal produced gross energy cost savings to Wisconsin transmission customers of approximately $18.94 million. CHC technical hearings before the Wisconsin Public Service Commission, Docket 5-CE-146). WGF supports any of the NTAs proposed by Wisconsin PSC staff in the final Wisconsin EIS, especially the Base With Reliability Assets Alternative (BWARA) coupled with optimized NTAs, and more energy efficiencies and local power generation.	RUS has determined that the purpose and need for the Federal action are supported (see EIS, Chapter 1). The State of Wisconsin approved the project through the PSCW and WDNR EIS process (PSCW 2019b). The Federal EIS does not consider alternatives in the same manner as the PSCW or IUB. The Federal agencies are required to comply with the Act, the weighing of the merits and drawbacks of the various alternatives need not be displayed in a monetary cost-benefit analysis and should not be when there are important qualitative considerations.” As discussed in EIS Chapter 2, Section 2.2.2, non-transmission and low-voltage alternatives are not responsive to the applications to which the Federal agencies are responding, nor do they meet the six-point purpose and need described in EIS Chapter 1. The Federal EIS considers alternatives that are ripe for Federal consideration. What that means is that a proposal has been made for those alternatives or that it is reasonably foreseeable that they could be implemented in a time frame that would meet the need for the Federal action. Requirements for alternatives consideration under Wisconsin Statute 196.491(d) are very specific and separate from NEPA. In accordance with their jurisdictional responsibilities, the PSCW considered if and how the range of alternatives meets those requirements (see Section 1.2.2.1 of PSCW [2019]).
Wisconsin's Green Fire	Larson	EFF02	X. Conclusion: The proposed Cardinal-Hickory Creek high voltage transmission line would have many temporary and permanent adverse cumulative impacts to the lands, waters, species, and quality of life in the Driftless Area (FEIS Section 4.4: Cumulative Impacts on geology/soils, wildlife, water, Refuge, visual quality/Aesthetics; Section 4.5: Unavoidable Adverse Impacts on wetlands, floodplains, air quality/noise, cultural/historic resources, land use, and visual quality/aesthetics). The FEIS devotes only 13 pages of a 618 page document to these important sections.	Comment noted.
Wisconsin's Green Fire	Larson	ALT04	Wisconsin’s Green Fire: Voices for Conservation requests that the RUS, USFWS, and USACE fully investigate and report on all aspects of the proposed CHC, evaluate non-transmission alternatives, and recommend actions which best serve the needs of Wisconsin citizens into the future. Thank you for the opportunity to provide these comments on the final federal Environmental Impact Statement.	FEIS Section 2.2.2 provides rationale for not carrying forward non-transmission, lower-voltage, and underground alternatives for detailed analysis.

5 LITERATURE CITED

Barrientos, R., C. Ponce, C. Palacin, C. Martin, B. Martin, and J. Carlos Alfonso. 2012. Wire Marking Results in a Small but Significant Reduction in Avian Mortality at Power Lines: A BACI Design Study. Available at: https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0032569#abstract0. Accessed on December 2, 2019.

Burns and McDonnell Engineering Company. 2016. *Cardinal-Hickory Creek Transmission Line Project Alternative Crossings Analysis*. Prepared for ITC Midwest LLC, American Transmission Line Company LLC, and Dairyland Power Cooperative. Submitted to the U.S. Department of Agriculture, Rural Utilities Service. Available at: https://www.rd.usda.gov/publications/environmental-studies/impact-statements/cardinal-%E2%80%93-hickory-creek-transmission-line. Accessed March 15, 2017.

Council on Environmental Quality (CEQ). 2011. Appropriate Use of Mitigation and Monitoring and Clarifying the Appropriate Use of Mitigated Findings of No Significant Impact. Available at: https://ceq.doe.gov/docs/ceq-regulations-and-guidance/Mitigation_and_Monitoring_Guidance_14Jan2011.pdf. Accessed December 2, 2019.

Dairyland Power Cooperative (Dairyland), American Transmission Company (ATC), and ITC Midwest LLC (ITC). 2016a. *Cardinal-Hickory Creek 345 kV Transmission Line Project Alternatives Evaluation Study*. Submitted to the U.S. Department of Agriculture, Rural Utilities Service. Available at: https://www.rd.usda.gov/publications/environmental-studies/impact-statements/cardinal-%E2%80%93-hickory-creek-transmission-line. Accessed March 15, 2017.

———. 2016b. *Cardinal-Hickory Creek 345 kV Transmission Line Project Macro-Corridor Study*. Submitted to the U.S. Department of Agriculture, Rural Utilities Service. Available at: https://www.rd.usda.gov/publications/environmental-studies/impact-statements/cardinal-%E2%80%93-hickory-creek-transmission-line. Accessed March 15, 2017.

Hanle, L., K. Jayaraman, and J. Smith. CO2 Emissions Profile of the U.S. Cement Industry. Available at: https://www3.epa.gov/ttnchie1/conference/ei13/ghg/hanle.pdf. Accessed June 1, 2019.

Joly, D.O., M.D. Samuel, J.A. Langenberg, J.A. Blanchong, C.A. Batha, R.E. Rolley, D.P. Keane, and C.A. Ribic. 2006. Spatial epidemiology of chronic wasting disease in Wisconsin white-tailed deer. Journal of Wildlife Diseases. 42(3) 578-588. Available at: https://www.jwildlifedis.org/doi/pdf/10.7589/0090-3558-42.3.578

Power Engineers, Inc. 2010. *CapX2020 345 kV Underground Report*. Prepared for Xcel Energy. Available at: http://www.capx2020.com/Projects/pdf/085-247_Xcel_CAPX2020_Underground%20Report_02-24-10_RevB.pdf. Accessed September 2018.

Public Service Commission of Wisconsin (PSCW). 2019a. *Cardinal-Hickory Creek Transmission Line Final Environmental Impact Statement*. PSC Docket 5-CE-146. Issued May 2019. Available at: http://apps.psc.wi.gov/pages/viewdoc.htm?docid=366195. Accessed May 20, 2019.

———. 2019b. Cardinal-Hickory Creek Transmission Line Final Decision. PSC Docket 5-CE-146. Available at: http://apps.psc.wi.gov/vs2015/ERF_search/content/searchResult.aspx?UTIL=5&CASE=CE&SEQ=146&START=none&END=none&TYPE=none&SERVICE=none&KEY=none&NON=N. Accessed: September 26, 2019.

This page intentionally left blank.

APPENDIX A

Notices Published in the Federal Register and Local Media

recreational areas, road sides, road cuts, construction sites, and rights-of-way. *Contact:* BPPD.

2. *File Symbol:* 91213–U. *Docket ID number:* EPA–HQ–OPP–2017–0336. *Applicant:* United States Department of Agriculture-Agricultural Research Service, 920 Valley Road, Reno NV 89512. *Product name: Pseudomonas fluorescens* strain ACK55 Technical. *Active ingredient:* Herbicide—*Pseudomonas fluorescens* strain ACK55 at 100%. *Proposed use:* Manufacturing use product. *Contact:* BPPD.

3. *File Symbol:* 93566–R. *Docket ID number:* EPA–HQ–OPP–2019–0550. *Applicant:* G.D.G Environment, 430 Rue Saint-Laurent, Trois-Rivieres (Quebec) G8T 6H3 Canada c/o Technology Sciences Group, USA, 1150 18th Street NW, Washington, DC 20036. *Product name:* Fraxiprotec. *Active ingredient:* Insecticide—*Beauveria bassiana* strain CFL-A at 12%. *Proposed use:* End use product/Control Emerald Ash Borer Beetle. *Contact:* BPPD.

Authority: 7 U.S.C. 136 *et seq.*

Dated: October 10, 2019.

Delores Barber,

Director, Information Technology and Resources Management Division, Office of Pesticide Programs.

[FR Doc. 2019–23361 Filed 10–24–19; 8:45 am]

BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

[ER–FRL–9047–6]

Environmental Impact Statements; Notice of Availability

Responsible Agency: Office of Federal Activities, General Information 202–564–5632 or *https://www.epa.gov/nepa/.*

Weekly receipt of Environmental Impact Statements

Filed 10/14/2019 10 a.m. ET Through 10/21/2019 10 a.m. ET

Pursuant to 40 CFR 1506.9.

Notice

Section 309(a) of the Clean Air Act requires that EPA make public its comments on EISs issued by other Federal agencies. EPA's comment letters on EISs are available at: *https://cdxnodengn.epa.gov/cdx-enepa-public/action/eis/search.*

EIS No. 20190255, Draft Supplement, NRC, VA, Generic Environmental Impact Statement for License Renewal of Nuclear Plants—Supplement 6, Second Renewal Regarding Subsequent License Renewal for Surry Power Station Units 1 and 2, Comment Period Ends: 12/10/2019, Contact: Tam Tran 301–415–3617

EIS No. 20190256, Draft Supplement, NASA, CA, Draft Supplemental Environmental Impact Statement for Soil Cleanup Activities at Santa Susana Field Laboratory, Comment Period Ends: 12/09/2019, Contact: Peter Zorba *msfc-ssfl-information@mail.nasa.gov*

EIS No. 20190257, Final, RUS, WI, Cardinal-Hickory Creek 345-kV Transmission Line Project, Review Period Ends: 11/25/2019, Contact: Dennis Rankin 202–720–1953

EIS No. 20190258, Draft Supplement, NASA, FL, Supplemental Environmental Impact Statement for the Mars 2020 Mission, Comment Period Ends: 12/10/2019, Contact: George Tahu 202–358–0016

EIS No. 20190259, Final, BR, CA, Mendota Pool Group 20-Year Exchange Program, Review Period Ends: 11/25/2019, Contact: Rain Emerson 559–262–0335

EIS No. 20190260, Draft, BR, USACE, CA, Port of Long Beach Deep Draft Navigation Feasibility Study, Comment Period Ends: 12/09/2019, Contact: Larry Smith 213–452–3846

Amended Notice

EIS No. 20190254, Draft, USFS, AK, Rulemaking for Alaska Roadless Areas, Comment Period Ends:12/17/2019, Contact: Ken Tu 202–403–8991

Revision to FR Notice Published 10/18/2019; Correction to Comment Period Due Date from December 18, 2019 to December 17, 2019.

Dated: October 21, 2019.

Robert Tomiak,

Director, Office of Federal Activities.

[FR Doc. 2019–23313 Filed 10–24–19; 8:45 am]

BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

[EPA–HQ–OPP–2019–0045; FRL–10001–12]

Pesticide Product Registration; Receipt of Applications for New Uses (September 2019)

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice.

SUMMARY: EPA has received applications to register new uses for pesticide products containing currently registered active ingredients. Pursuant to the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), EPA is hereby providing notice of receipt and opportunity to comment on these applications.

DATES: Comments must be received on or before November 25, 2019.

ADDRESSES: Submit your comments, identified by the docket identification (ID) number and the File Symbol of the EPA registration number of interest as shown in the body of this document, by one of the following methods:

- *Federal eRulemaking Portal: http://www.regulations.gov.* Follow the online instructions for submitting comments. Do not submit electronically any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute.
- *Mail:* OPP Docket, Environmental Protection Agency Docket Center (EPA/DC), (28221T), 1200 Pennsylvania Ave. NW, Washington, DC 20460–0001.
- *Hand Delivery:* To make special arrangements for hand delivery or delivery of boxed information, please follow the instructions at *https://www.epa.gov/dockets/where-send-comments-epa-dockets.*

Additional instructions on commenting or visiting the docket, along with more information about dockets generally, is available at *https://www.epa.gov/dockets/about-epa-dockets.*

FOR FURTHER INFORMATION CONTACT: Michael Goodis, Registration Division (7505P), main telephone number: (703) 305–7090, email address: *RDFRNotices@epa.gov.* Anita Pease, Antimicrobials Division (AD) (7510P), main telephone number: (703) 305–7090; email address: *ADFRNotices@epa.gov.* The mailing address for each contact person is: Office of Pesticide Programs, Environmental Protection Agency, 1200 Pennsylvania Ave. NW, Washington, DC 20460–0001. As part of the mailing address, include the contact person's name, division, and mail code. The division to contact is listed at the end of each application summary.

SUPPLEMENTARY INFORMATION:

I. General Information

A. Does this action apply to me?

You may be potentially affected by this action if you are an agricultural producer, food manufacturer, or pesticide manufacturer. The following list of North American Industrial Classification System (NAICS) codes is not intended to be exhaustive, but rather provides a guide to help readers determine whether this document applies to them. Potentially affected entities may include:

- Crop production (NAICS code 111).
- Animal production (NAICS code 112).

purposes of the standard were updated to include drainage water as well as irrigation water. This standard applies to lands that have a properly designed and installed irrigation or subsurface drainage system where recoverable irrigation runoff, subsurface drainage outflows, or rainfall runoff are expected under current or planned management practices.

Irrigation Canal or Lateral (Code 320): Formatting and writing style were updated to meet current agency requirements. The Considerations section has a new paragraph that suggests ways the practice can be implemented that enhances the practice for pollinators and other beneficial insects.

Irrigation Ditch Lining (Code 428): Formatting and writing style were updated to meet current agency requirements. Updated missing units, tabular values, and reworded the term flexible membrane to geosynthetic to meet current industry standards. Moved items related to energy use from the Criteria section to the Considerations section.

Irrigation Field Ditch (Code 388): Formatting and writing style were updated to meet current agency requirements. In addition, a sentence on spoil disposal was added in the Criteria section. The Considerations section was significantly re-written.

Irrigation Reservoir (Code 436): Formatting and writing style were updated to meet current agency requirements. Removed energy use bulleted items from the Purpose section. Moved items related to energy use from the Criteria section to the Considerations section. Also moved fencing and critical planting from the Considerations section to the Criteria section.

Land Clearing (Code 460): Formatting and writing style were updated to meet current agency requirements. Relatively minor changes have been made to simplify and clarify the definition, purpose and criteria within the standard.

Obstruction Removal (Code 500): Formatting and writing style were updated to meet current agency requirements. Changes to Purpose and Conditions where Practice Applies sections were made to help clarify standard usage. Changes were made to help simplify and clarify the Criteria and Consideration section within the standards.

Surface Roughening (Code 609): Formatting and writing style were updated to meet current agency requirements. Several paragraphs in the Considerations section were deleted and edited for improved clarity. Reference to the Crop Tolerance Table in the National Agronomy Manual was added.

Waste Treatment (Code 629): Purpose revised to improve water quality, improve air quality resource concerns, and facilitate waste handling and storage. Conditions where this practice applies is on all land uses where manure and/or agricultural waste is being generated and where soils, geology, and topography are suitable for construction of the waste treatment system. Criteria sections added to address system designs outside the scope of current accepted NRCS conservation practice standards, waste stream pretreatment requirements, byproducts handling and storage, and required technical review of treatment performance.

Waterspreading (Code 640): Purpose statements were also reworded to more directly relate to the stated resource concern. In ''Conditions where Practice Applies'' the language was simplified and more clearly explains where practice may be used. References were added.

Kevin Norton,

Associate Chief, Natural Resources Conservation Service.

[FR Doc. 2019–23111 Filed 10–22–19; 8:45 am]

BILLING CODE 3410–16–P

DEPARTMENT OF AGRICULTURE

Rural Utilities Service

Cardinal-Hickory Creek 345-kv Transmission Line Project

AGENCY: Rural Utilities Service, USDA.

ACTION: Notice of availability of a Final Environmental Impact Statement.

SUMMARY: Notice is hereby given that the Rural Utilities Service (RUS) has prepared a Final Environmental Impact Statement (EIS) to meet its responsibilities under the National Environmental Policy Act (NEPA) and the Code of Federal Regulations related to providing financial assistance to Dairyland Power Cooperative (DPC) for its share in the construction of a proposed 345-kilovolt (kV) transmission line and associated infrastructure connecting the Hickory Creek Substation in Dubuque County, Iowa, with the Cardinal Substation in the Town of Middle, Wisconsin (near Madison, Wisconsin). The Project also includes a new intermediate 345/138-kV substation near the Village of Montfort in either Grant County or Iowa County, Wisconsin. The total length of the 345-kV transmission lines associated with the proposed project will be approximately 100 to 125 miles, depending on the final route. DPC, along with the two other project participant utilities, American Transmission Company LLC, and ITC Midwest LLC (together the Utilities) have identified proposed and alternate segments and locations for transmission lines and associated facilities and for the intermediate substation. DPC is requesting RUS to provide financing for its portion of the proposed project.

DATES: Written comments on this Final EIS will be accepted no later than 30 days following the publication of the U.S. Environmental Protection Agency's notice of receipt of the Final EIS in the **Federal Register**.

ADDRESSES: A copy of the Final EIS may be viewed online at the following website: *https://www.rd.usda.gov/publications/environmental-studies/impact-statements/cardinal-%E2%80%93-hickory-creek-transmission-line.*

A hard copy of the Final EIS is available for review at Dairyland Power Cooperative, 3521 East Avenue, South, La Crosse, WI 54602 and at 13 local libraries in the project area and the USFWS McGregor District Office in Prairie du Chien, WI which are listed below.

Library	Address
Allen-Dietzman Public Library	220 W Barber Avenue, Livingston, WI 53554.
Barneveld Public Library	107 W Orbison Street, Barneveld, WI 53507.
Dodgeville Public Library	139 S Iowa Street, Dodgeville, WI 53533.
Dubuque County Library, Asbury Branch	5290 Grand Meadow Drive, Asbury, IA 52002.
Eckstein Memorial Library	1034 E Dewey Street, Cassville, WI 53806.
Guttenberg Public Library	603 S 2nd Street, Guttenberg, IA 52052.
Middleton Public Library	7425 Hubbard Avenue, Middleton, WI 53562.

Library	Address
Montfort Public Library	102 E Park Street, Montfort, WI 53569.
Mount Horeb Public Library	105 Perimeter Road, Mount Horeb, WI 53572.
Platteville Public Library	65 S Elm Street, Platteville, WI 53818.
Potosi Branch Library	103 N Main Street, Potosi, WI 53820.
Rosemary Garfoot Public Library	2107 Julius Street, Cross Plains, WI 53528.
Schreiner Memorial Library	113 W Elm Street, Lancaster, WI 53813.
USFWS McGregor District Office	470 Cliff Haven Road, Prairie du Chien, WI 53821.

FOR FURTHER INFORMATION CONTACT: To obtain copies of the Final EIS or for further information, contact: Dennis Rankin, Environmental Protection Specialist, USDA, Rural Utilities Service, 1400 Independence Avenue SW, Room 2244, Stop 1571, Washington, DC 20250–1571, by phone at (202) 720–1953 or email *Dennis.Rankin@usda.gov.*

SUPPLEMENTARY INFORMATION: RUS is the lead agency for the federal environmental review with U.S. Fish and Wildlife Service (USFWS), U.S. Army Corps of Engineers (USACE), and the U.S. Environmental Protection Agency (USEPA) serving as cooperating agencies, and the National Park Service (NPS) as a participating agency.

The purpose of the proposed project is to: (1) Address reliability issues on the regional bulk transmission system, (2) alleviate congestion that occurs in certain parts of the transmission system and remove constraints that limit the delivery of power, (3) expand the access of the transmission system to additional resources, (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 (6) respond to public policy objectives aimed at enhancing the nation's transmission system and to support the changing generation mix.

The Final EIS addresses the construction and operation of the proposed project, which, in addition to the 345-kV transmission line and associated infrastructure, includes the following facilities:

- At the existing Cardinal Substation in Dane County, Wisconsin: A new 345-kV terminal within the substation;
- At the proposed Hill Valley Substation near the Village of Montfort, Wisconsin: An approximately 22-acre facility with five 345-kV circuit breakers, one 345-kV shunt reactor, one 345-/138-kV autotransformer, three 138-kV circuit breakers, and a 345-kV and 138-kV terminals;
- At the existing Eden Substation near the village of Montfort, Wisconsin: Transmission line protective relaying upgrades to be compatible with new productive relays installed at the new Hill Valley Substation and replacement of conductors and switches to meet the Utilities' operating limits;
- Between the existing Eden Substation and the proposed Hill Valley Substation near the village of Montfort, Wisconsin: A rebuild of the approximately 1 mile Hill Valley to Eden 138-kV transmission line;
- At the existing Wyoming Valley Substation near Wyoming, Wisconsin: Installation of nine 16-foot ground rods to mitigate fault current contributions from the proposed project;
- At either the Lancaster or Hillman substation, depending on the final route, equipment installation to use the optical ground wire that would be part of the C–HC Project;
- Between the existing Cardinal Substation and the proposed Hill Valley Substation: A new 50- to 53-mile (depending on the final route) 345-kV transmission line;
- Between the proposed Hill Valley Substation and existing Hickory Creek Substation: A new 50- to 70-mile (depending on the final route) 345-kV transmission line;
- At the Mississippi River in Cassville, Wisconsin: A rebuild and possible relocation of the existing Mississippi River transmission line crossing to accommodate the new 345-kV transmission line and Dairyland's 161-kV transmission line, which would be capable of operating at 345-/345-kV but will initially be operated at 345-/161-kV;
  - depending on the final route and the Mississippi River crossing location:
- A new 161-kV terminal and transmission line protective relaying upgrades within the existing Nelson Dewey Substation in Cassville, Wisconsin;
- a replaced or reinforced structure within the Stoneman Substation in Cassville, Wisconsin;
- Multiple, partial, or complete rebuilds of existing 69-kV, 138-kV, and 161-kV transmission lines in Wisconsin that would be collocated with the new 345-kV line;
- At the existing Turkey River Substation in Clayton County, Iowa: One new 161-/69-kV transformer, three new 161-kV circuit breakers, and four new 69-kV circuit breakers;
- At the completion of the C–HC Project construction and energization at the Turkey River Substation, Dairyland would retire and decommission approximately 2.8 miles of the existing N–9 transmission line (69-kV); and
- At the existing Hickory Creek Substation in Dubuque County, Iowa: A new 345-kV terminal within the existing Hickory Creek Substation.

Among the alternatives addressed in the Final EIS is the No Action alternative, under which the proposed project would not be undertaken. Additional alternatives addressed in the Final EIS include six action alternatives connecting the Cardinal Substation in Wisconsin with the Hickory Creek Substation in Iowa. RUS has carefully studied public health and safety, environmental impacts, and engineering aspects of the proposed project.

RUS used input provided by government agencies, private organizations, and the public in the preparation of the Final EIS. RUS has considered all comments received on the Draft EIS and revised the EIS accordingly. Following the 30-day comment period for the Final EIS, RUS will prepare a Record of Decision (ROD). A Notice announcing the availability of the ROD will be published in the **Federal Register** and in local newspapers. Additionally, letters and emails will be sent to stakeholders.

In accordance with Section 106 of the National Historic Preservation Act and its implementing regulation, ''Protection of Historic Properties'' (36 CFR 800) and as part of its broad environmental review process, RUS must take into account the effect of the proposed project on historic properties. Pursuant to 36 CFR 800.2(d)(3), RUS is using its procedures for public involvement under NEPA to meet its responsibilities to solicit and consider the views of the public during Section 106 review. Any party wishing to participate more directly with RUS as a ''consulting

party'' in Section 106 review may submit a written request to the RUS contact provided in this notice.

The proposed project involves unavoidable impacts to wetlands and floodplains; this Notice of Availability also serves as a statement of no practicable alternatives to impacts on wetlands and floodplains, in accordance with Executive Orders 11990 and 11988, respectively (see Final EIS Sections 3.3 and 3.5).

Any final action by RUS related to the proposed project will be subject to, and contingent upon, compliance with all relevant Federal, State and local environmental laws and regulations, and completion of the environmental review requirements as prescribed in the RUS Environmental Policies and Procedures (7 CFR 1970).

Christopher A. Mclean,

Assistant Administrator, Electric Programs, Rural Utilities Service.

[FR Doc. 2019–23049 Filed 10–22–19; 8:45 am]

BILLING CODE 3410–15–P

DEPARTMENT OF AGRICULTURE

Rural Utilities Service

Central Electric Power Cooperative, Inc.: Extension of Comment Period for an Environmental Impact Statement

AGENCY: Rural Utilities Service, USDA.

ACTION: Notice: Extension of Comment Period for an Environmental Impact Statement.

SUMMARY: The Rural Utilities Service (RUS), a Rural Development agency of the U.S. Department of Agriculture (USDA), has issued a Supplemental Draft Environmental Impact Statement (Supplemental Draft EIS) for Central Electric Power Cooperative's (Central Electric) proposed McClellanville Area 115-kV Transmission Project (Project) in South Carolina. In this document, RUS analyzes the environmental impacts associated with an anticipated decision request to approve or deny funding for Central Electric's proposed Project. The Supplement Draft EIS was prepared to address substantial changes to the proposed action and assesses new circumstances and information relevant to potential environmental impacts originally evaluated in the Draft Environmental Impact Statement (Draft EIS). RUS published a Notice of Intent and Availability on August 30, 2019, that provided a 60-day comment period, ending on the date announced in the U.S. Environmental Protection Agency's (USEPA) EIS receipt notice on October 22, 2019. RUS is extending the public comment period for the Draft EIS by an additional 30 days to November 21, 2019.

DATES: With this notice, RUS extends the public comment period to November 21, 2019. Comments submitted to RUS regarding the Supplemental Draft EIS prior to this announcement do not need to be resubmitted as a result of this extension to the comment period. The date(s) and time for a public meeting will be announced in local newspapers and published on the agency's website at: *https://www.rd.usda.gov/publications/environmental-studies/impact-statements/mcclellanville-115kv-transmission-line.*

ADDRESSES: The Supplemental Draft EIS and associated documents are available at the weblink provided in this Notice (*https://www.rd.usda.gov/publications/environmental-studies/impact-statements/mcclellanville-115kv-transmission-line*). RUS will consider all substantive written comments on the Supplemental Draft EIS received or postmarked within the 90-day timeframe or until November 21, 2019. Agencies, interested parties, and the public are invited to submit comments on the Supplemental Draft EIS at any time during the public comment period by either of the following methods:

- *Email:* Please send your comments to *Comments-mcclellanville@louisberger.com.*
- *Postal Mail/Commercial Delivery:* Please send your comment addressed to Ms. Lauren Rayburn, Environmental Scientist, Rural Utilities Service, 160 Zillicoa Street, Suite 2, Asheville, North Carolina 28801.

FOR FURTHER INFORMATION CONTACT: For information on the proposed Project and the EIS process, please contact Ms. Lauren Rayburn, Environmental Scientist, Rural Utilities Service, 160 Zillicoa Street, Suite 2, Asheville, North Carolina 28801 or email to: *lauren.rayburn@usda.gov*. Parties wishing to be placed on the Project mailing list for future information and to receive copies of the Supplemental Draft EIS and the Final EIS when available should also contact Ms. Rayburn.

SUPPLEMENTARY INFORMATION: RUS is authorized to make loans and loan guarantees that finance the construction of electric distribution, transmission, and generation facilities, including system improvements and replacements required to furnish and improve electric service in rural areas, as well as demand side management, energy conservation programs, and on-grid and off-grid renewable energy systems. Central Electric is an electric transmission cooperative that provides transmission service from the bulk transmission system to South Carolina's 20 retail electric cooperatives. Berkeley Electric, a member distribution electric cooperative of Central Electric, was formed in 1940 to bring electric service to rural areas of coastal South Carolina. Berkeley Electric owns and operates more than 5,000 miles of distribution line serving more than 80,000 accounts in Berkeley, Charleston, and Dorchester counties.

Project Description: Central Electric has identified the need for additional electric transmission capacity in the McClellanville area of coastal South Carolina to meet reliability and energy load requirements of its member owner, Berkeley Electric Cooperative. Investigations and analyses conducted for the overall power delivery systems found that without improvements, the flow of power along existing lines may result in local line overloads and power outages. To resolve these issues, Central Electric is proposing to construct, own and operate a new 115-kV transmission line and associated supporting infrastructure to energize the new McClellanville Substation, located near the McClellanville service area. Berkeley Electric owner-customers that would benefit from the proposed Project include those located in the areas near Rutledge Road, South Santee Road, Wedge Plantation, Germantown, Toby Road, Dupree Road, Lincoln High School, Randall Road, Tibwin Road, St. James-Santee School, Shellmore, Buck Hall, Town of Awendaw, Doar Road, and areas adjacent to U.S. Highway 17 in northern Charleston County.

The Supplemental Draft EIS considers three alternatives, encompassing three potential corridor locations with one corridor including two different alignments. The corridors range in length from 16 to 31 miles and encompasses parts of Berkeley, Georgetown and Charleston counties in South Carolina. The corridor locations propose to cross both public and private lands, including the Francis Marion National Forest, Santee Coastal Reserve, and other private and public lands used for conservation management purposes; all corridors are located entirely within the Gullah Geechee Cultural Heritage Corridor. The Supplemental Draft EIS analyzes the extent of Central's Electric's proposal with regard to the following: Water resources, biological resources, soils and geology, air quality and greenhouse gas emissions, cultural resources, recreation and land use, visual resources, socioeconomics,

Legal Notice: Rural Utilities Service Final Environmental Impact Statement Notice of Availability for the Cardinal-Hickory Creek Transmission Line

The U.S. Department of Agriculture, Rural Utilities Service (RUS) is announcing the availability of the Cardinal-Hickory Creek 345-kV Transmission Line Project (C-HC Project) Final Environment Impact Statement (EIS). The Final EIS evaluates environmental impacts of construction and operation of the C-HC Project, which would extend approximately 125 miles, connecting Dane County, Wisconsin and Dubuque County, Iowa. RUS has considered all comments received on the Draft EIS and used input provided by government agencies, private organizations, and the public in the preparation of the Final EIS.

RUS is releasing the Final EIS for a 30-day public review period; as part of the federal environmental review process required by the National Environmental Policy Act (NEPA) and that National Historic Preservation Act (NHPA). Following the 30-day review period for the Final EIS, RUS will prepare a Record of Decision (ROD).

The Final EIS is available online at:

- https://www.rd.usda.gov/publications/environmental-studies/impact-statements
- http://www.cardinal-hickorycreek.com/

Hard copies of the Final EIS are available at:

- Dubuque County Library, Asbury Branch, 5290 Grand Meadow Drive, Asbury, IA
- Barneveld Public Library, 107 W. Orbison St., Barneveld, WI
- Dodgeville Public Library, 139 S. Iowa St., Dodgeville, WI
- Eckstein Memorial Library, 1034 E. Dewey St., Cassville, WI
- Middleton Public Library, 7425 Hubbard Ave, Middleton, WI
- Montfort Public Library, 102 E. Park, Montfort, WI
- Mount Horeb Public Library, 105 Perimeter Rd., Mount Horeb, WI
- Platteville Public Library, 225 W. Main St., Platteville, WI
- Potosi Branch Library, 103 N. Main St., St. Platteville, WI
- Schreiner Memorial Library, 113 W. Elm St., Lancaster, WI
- Allen-Dietzman Public Library, 220 W. Barber Ave., Livingston, WI
- Guttenberg Public Library, 603 S. 2nd St., Guttenberg, IA
- Rosemary Garfoot Public Library, 2107 Julius St., Cross Plains, WI
- USFWS McGregor District Office, 470 Cliff Haven Rd., Prairie du Chien, WI

Comments must be received or postmarked **30 days** from publication of the U.S. Environmental Protection Agency's Notice of Availability of the Final EIS in the Federal Register (estimated to be published on October 25, 2019). There are two ways to provide comments during the Final EIS review period:

1. Email written comments to: comments@CardinalHickoryCreekEIS.us
2. Mail comments to: SWCA Environmental Consultants, Attn: Cardinal-Hickory Creek EIS, 80 Emerson Lane, Suite 1306, Bridgeville, PA 15017

~ PUBLIC NOTICE ~

RURAL UTILITIES SERVICE ISSUES NOTICE OF AVAILABILITY OF A FINAL ENIVRONMENTAL IMPACT STATEMENT FOR THE CARDINAL-HICKORY CREEK TRANSMISSION LINE

The U.S. Department of Agriculture Rural Utilities Service (RUS) is announcing the availability of the Cardinal-Hickory Creek 345-kV Transmission Line Project (C-HC Project) Final Environment Impact Statement (EIS). The Final EIS evaluates the environmental impacts of the construction and operation of the proposed C-HC Project which would extend 125 miles, connecting Dane County, Wisconsin, and Dubuque County, Iowa.

RUS is releasing the Final EIS for a 30-day public review period, as part of the federal environmental review process required by NEPA and NHPA. Following the 30-day review period for the Final EIS, RUS will prepare a Record of Decision.

The Final EIS and additional information about the project can be found here: **http://www.rd.usda.gov/publications/environmental-studies/impact-statements**

Comments must be received or postmarked **30 days** from publication of the U.S. Environmental Protection Agency's notice of receipt of the Final EIS in the Federal Register (estimated to be published on October 25, 2019). There are two ways to provide comments during the Final EIS review period:

1. Email written comments to: comments@CardinalHickoryCreekEIS.us
2. Mail comments to: SWCA Environmental Consultants, Attn: Cardinal-Hickory Creek EIS, 80 Emerson Lane, Suite 1306, Bridgeville, PA 15017

Press Release

Rural Utilities Service Issues Notice of Availability of a Final Environmental Impact Statement for the Cardinal-Hickory Creek Transmission Line

Dated: 10/22/19

For Immediate Release

Media contacts: Dennis Rankin, RUS Co-Project Manager
202-720-1953
Dennis.rankin@usda.gov

MADISON, WI. – The U.S. Department of Agriculture Rural Utilities Service (RUS) is announcing the availability of the Cardinal-Hickory Creek 345-kV Transmission Line Project (C-HC Project) Final Environment Impact Statement (EIS). The Final EIS evaluates environmental impacts of construction and operation of the C-HC Project, which would extend approximately 125 miles, connecting Dane County, Wisconsin and Dubuque County, Iowa. RUS has considered all comments received on the Draft EIS and used input provided by government agencies, private organizations, and the public in the preparation of the Final EIS.

RUS is releasing the Final EIS for a 30-day public review period; as part of the federal environmental review process required by the National Environmental Policy Act (NEPA) and that National Historic Preservation Act (NHPA). Following the 30-day review period for the Final EIS, RUS will prepare a Record of Decision (ROD).

The Final EIS is available online at:

- https://www.rd.usda.gov/publications/environmental-studies/impact-statements
- http://www.cardinal-hickorycreek.com/

Hard copies of the Final EIS are available at:

- Dubuque County Library, Asbury Branch, 5290 Grand Meadow Drive, Asbury, IA
- Barneveld Public Library, 107 W. Orbison St., Barneveld, WI
- Dodgeville Public Library, 139 S. Iowa St., Dodgeville, WI
- Eckstein Memorial Library, 1034 E. Dewey St., Cassville, WI
- Middleton Public Library, 7425 Hubbard Ave, Middleton, WI
- Montfort Public Library, 102 E. Park, Montfort, WI
- Mount Horeb Public Library, 105 Perimeter Rd., Mount Horeb, WI
- Platteville Public Library, 225 W. Main St., Platteville, WI
- Potosi Branch Library, 103 N. Main St., St. Platteville, WI
- Schreiner Memorial Library, 113 W. Elm St., Lancaster, WI
- Allen-Dietzman Public Library, 220 W. Barber Ave., Livingston, WI

- Guttenberg Public Library, 603 S. 2nd St., Guttenberg, IA
- Rosemary Garfoot Public Library, 2107 Julius St., Cross Plains, WI
- USFWS McGregor District Office, 470 Cliff Haven Rd., Prairie du Chien, WI

Comments must be received or postmarked 30 days from publication of the U.S. Environmental Protection Agency's notice of availability of the Final EIS in the Federal Register (estimated to be published on October 25, 2019). There are two ways to provide comments during the Final EIS review period:

1. Email written comments to: comments@CardinalHickoryCreekEIS.us
2. Mail comments to: SWCA Environmental Consultants, Attn: Cardinal-Hickory Creek EIS, 80 Emerson Lane, Suite 1306, Bridgeville, PA 15017

APPENDIX B

Mailing Lists for Agencies, Tribes, Local Government, and State Representatives

Table B-1. Agency Distribution List for Cardinal-Hickory Creek Final EIS Notices

Name	Agency	Office/Department
Jack Gilbertsen	Federal Aviation Administration	Chicago Airports District Office, CHI-ADO-600
Vivian Vilaro	Federal Aviation Administration	
Dan Higginbottom	Historical Society of Iowa	State Historical Preservation Office
John F. Doershuck	Office of State Archaeologist	University of Iowa
Seth Moore	Iowa Department of Natural Resources	Conservation and Recreation Division
Kelly Stone	Iowa Department of Natural Resources	Floodplain
Kelly Poole	Iowa Department of Natural Resources	Sovereign Lands
Joe Griffin	Iowa Department of Natural Resources	Stormwater
Colleen Conroy	Iowa Department of Natural Resources	
Christine Schwake	Iowa Department of Natural Resources	Water Quality
Mike La Pietra	Federal Highway Administration, Iowa Division	
Joel Batha	FHWA Wisconsin Division	
Pete Garcia	FHWA Wisconsin Division	
Bryan Bradley	Iowa Department of Transportation	Traffic and Safety
Don Tormey	Iowa Utilities Board	Customer Service and Communications Section
Adam Yarina	National Park Service	Midwest Regional Office
Pam Schuler	National Park Service	Ice Age National Scenic Trail
Eric Gabriel	National Park Service	Ice Age National Scenic Trail
Adam Ingwell	Public Service Commission of Wisconsin	Division of Energy Regulation
Jim Lepinski	Public Service Commission of Wisconsin	Division of Energy Regulation
Marilyn Weiss	Wisconsin Department of Agriculture, Trade and Consumer Protection	Div. of Agricultural Resource Management
Sara Walling	Wisconsin Department of Agriculture, Trade and Consumer Protection	Div. of Agricultural Resource Management
David R Siebert	Wisconsin Department of Natural Resources	Bureau of Environmental Analysis and Sustainability
Joshua A Brown	Wisconsin Department of Natural Resources	Bureau of Environmental Analysis and Sustainability
Bob Fasick	Wisconsin Department of Transportation	Bureau of Highway Maintenance
Mike Banaszak	Wisconsin Department of Transportation	Bureau of Hghway Maintenance
Adam Schleicher	Wisconsin Department of Transportation	Utility and Access Unit
Leslie Eisenberg	Wisconsin Historical Society	State Historical Preservation Office
Eric Washburn	U.S. Coast Guard	
Beverly Ohman	Iowa Utilities Board	Utilities Division
Bao Nguyen	Iowa Utilities Board	Utilities Division
Wendy Frohlich	U.S. Army Corps of Engineers	Rock Island Planning Div.
Charlene Carmack	U.S. Army Corps of Engineers	Rock Island Planning Div.
Amanda Forslund	U.S. Army Corps of Engineers	Real Estate Divison North (Rock Island District)

Name	Agency	Office/Department
Susan Monson	U.S. Army Corps of Engineers	Real Estate Divison North (Rock Island District)
Cheryl Shocklie	U.S. Army Corps of Engineers	Real Estate Divison North (Rock Island District)
Joseph Lundh	U.S. Army Corps of Engineers	Mississippi River Project
Paul St. Louis	U.S. Army Corps of Engineers	Emergency Management Section (Rock Island District)
Ben Vandermyde	U.S. Army Corps of Engineers	Rock Island District
Abby Steele	U.S. Army Corps of Engineers	Rock Island District
Joey Shoemaker	U.S. Army Corps of Engineers	Rock Island District
April Marcangeli	U.S. Army Corps of Engineers	St. Paul District
Kerrie Hauser	U.S. Army Corps of Engineers	St. Paul District
Jim Ross	U.S. Army Corps of Engineers	Rock Island Archaeologist
Kathy Kowal	U.S. Environmental Protection Agency	Region 5
Ken Westlake	U.S. Environmental Protection Agency	Region 5
Amber Tilley	U.S. Environmental Protection Agency	Region 7
Tim Yager	U.S. Fish and Wildlife Service	Upper Mississippi River National Wildlife Refuge
Wendy Woyczik	U.S. Fish and Wildlife Service	Upper Mississippi River National Wildlife Refuge
Andrew Horton	U.S. Fish and Wildlife Service	Twin Cities Ecological Services
Dawn Marsh	U.S. Fish and Wildlife Service	Minnesota Wisconsin Field Office
Brandon Jones	U.S. Fish and Wildlife Service	Upper Mississippi River National Wildlife Refuge and Driftless NWR

Table B-2. Native American Tribes Distribution List for Cardinal-Hickory Creek Final EIS Notices

Absentee-Shawnee Tribe of Indians of Oklahoma	Kickapoo Traditional Tribe of Texas	Ponca Tribe of Oklahoma
Alabama-Quassarte Tribal Town	Kickapoo Tribe in Kansas	Prairie Band Potawatomi Nation
Apache Tribe of Oklahoma	Kickapoo Tribe of Oklahoma	Prairie Island Indian Community
Bad River Band of Lake Superior Chippewa Indians of Wisconsin	Lac Courte Oreilles Band of Lake Superior Chippewa Indians of Wisconsin	Red Cliff Band of Lake Superior Chippewa Indians of Wisconsin
Bah Kho-je - Iowas of Oklahoma	Lac du Flambeau Band of Lake Superior Chippewa Indians of Wisconsin	Red Lake Band of Chippewa Indians
Bay Mills Indian Community	Lac Vieux Desert Band of Lake Superior Chippewa Indians of Michigan	Rosebud Sioux Tribe
Bois Forte Band of Chippewa	Leech Lake Band of Ojibwe	Sac and Fox Nation of Missouri in Kansas and Nebraska
Caddo Nation of Oklahoma	Little Traverse Bay Bands of Odawa Indians	Sac and Fox Nation of Oklahoma
Cayuga Nation of New York	Lower Brule Sioux Tribe	Sac and Fox Tribe of the Mississippi in Iowa
Cherokee Nation	Lower Sioux Indian Community	Saginaw Chippewa Indian Tribe of Michigan
Cheyenne and Arapaho Tribes of Oklahoma	Mendota Mdewakanton Dakota Community	Santee Sioux Tribe of Nebraska
Cheyenne River Sioux Tribe	Menominee Indian Tribe of Wisconsin	Sault Ste. Marie Tribe of Chippewa Indians
Chippewa Cree Tribe of the Rocky Boy's Reservation of Montana	Miami Nation of Indians in Indiana	Shakopee Mdewakanton Sioux Community of Minnesota
Citizen Potawatomi Nation	Miami Tribe of Oklahoma	Sisseton-Wahpeton Oyate
Crow Creek Sioux Tribe	Mille Lacs Band of Ojibwe Indians	Sokaogon Chippewa Community of Wisconsin
Flandreau Santee Sioux Tribe	Minnesota Chippewa Tribe	Spirit Lake Tribe
Fond du Lac Band of Lake Superior Chippewa	Oglala Sioux Tribe	St. Croix Chippewa Indians of Wisconsin
Forest County Potawatomi Community	Omaha Tribe of Nebraska	Standing Rock Sioux Tribe
Fort Belknap Indian Community	Oneida Nation of Wisconsin	Stockbridge-Munsee Band Community Band of Mohican Indians
Fort Peck Assiniboine and Sioux Tribes	Osage Nation	Three Affffliated Tribes Mandan, Hidatsa and Arikara Nation
Grand Portage Band of Lake Superior Chippewa	Otoe-Missouria Tribe	Turtle Mountain Band of Chippewa Indians
Grand Traverse Band of Ottawa and Chippewa Indians	Ottawa Tribe of Oklahoma	Upper Sioux Community, Minnesota
Hannahville Indian Community	Pawnee Nation of Oklahoma	White Earth Reservation
Ho-Chunk Nation	Peoria Tribe of Indians of Oklahoma	Winnebago Tribe of Nebraska
Iowa Tribe of Kansas and Nebraska	Pokagon Band of Potawatomi Indians	Yankton Sioux Tribe
Iowa Tribe of Oklahoma	Ponca Tribe of Nebraska	

Table B-3. Local Government Distribution List for Cardinal-Hickory Creek Final EIS Notices

Name	Title	City	State
Dave Considine	Wisconsin State Assembly	Madison	WI
Dianne Hesselbein	Wisconsin State Assembly	Madison	WI
Sondy Pope	Wisconsin State Assembly	Madison	WI
Todd Novak	Wisconsin State Assembly	Madison	WI
Travis Tranel	Wisconsin State Assembly	Madison	WI
Howard Marklein	Wisconsin State Senate	Madison	WI
Jon Erpenbach	Wisconsin State Senate	Madison	WI
Scott McDonell	Dane County Clerk	Madison	WI
Audra Anderson	Blue Mounds Village President	Blue Mounds	WI
Dennis Jelle	Blue Mounds Town Chairperson	Mount Horeb	WI
Pat Andreoni	Cross Plains Village President	Cross Plains	WI
Greg Hyer	Cross Plains Town Chairperson	Cross Plains	WI
David Shaw	Middleton Town Administrator/Clerk/Treasurer	Verona	WI
Sara Ludtke	Middleton Town Deputy Clerk	Verona	WI
Randy Littel	Mount Horeb Village President	Mount Horeb	WI
David Becker	Mount Horeb Village President	Mount Horeb	WI
Ed Eloranta	Springdale Town Chairman	Mount Horeb	WI
Vicki Anderson	Springdale Town Clerk	Mount Horeb	WI
Barbara Grenlie	Vermont Town Chairperson	Mount Horeb	WI
Robert Keeney	Grant County Chairperson	Mount Hope	WI
Thomas Cartwright	Beetown Town Chairperson	Cassville	WI
Keevin Williams	Cassville Village President	Cassville	WI
Douglas Schauff	Cassville Town Chairperson	Cassville	WI
Steve Barth	Clifton Town Chairperson	Livingston	WI
Jim Broihahn	Ellenboro Town Chairperson	Lancaster	WI
Nathan Niehaus	Harrison Town Chairperson	Platteville	WI
Jerry Wehrle	Mayor, City of Lancaster	Lancaster	WI
Patrick Schroeder	Liberty Town Chairperson/Grant County Supervisor	Lancaster	WI
Pat Ostendorf	Lima Town Chairperson	Platteville	WI
Tom Brown	Livingston Village President	Livingston	WI
James Schmitz	Montfort Village President	Montfort	WI
Karen Kurt	Platteville City Manager	Platteville	WI
Tom Weigel	Platteville Town Chairperson	Platteville	WI
Curtis Fetzek	Potosi Town Chairperson	Potosi	WI
Gary Schneider	South Lancaster Town Chairperson	Lancaster	WI
John Patcle	Waterloo Town Chairperson	Lancaster	WI
Kevin Bickford	Wingville Town Chairperson	Montfort	WI
John Meyers	Iowa County Chairperson	Barneveld	WI

Name	Title	City	State
Curt Kephart	Iowa County Administrator	Dodgeville	WI
David Lucey	Arena Town Chairperson	Arena	WI
Scott Leahy	Barneveld Village President	Barneveld	WI
Jason Carden	Brigham Town Chairperson	Barneveld	WI
Bob Roelli	Cobb Village President	Cobb	WI
Todd Novak	Mayor, City of Dodgeville	Dodgeville	WI
Curtis Peterson	Dodgeville Town Chairperson	Dodgeville	WI
Larry Stenner	Eden Town Chairperson	Dodgeville	WI
Allan Kosharek	Highland Town Chairperson	Highland	WI
Dean Liddicoat	Linden Town Chairperson	Mineral Point	WI
Mark Pinch	Mifflin Town Chairperson	Livingston	WI
Paul Simon	Rewey Village President	Rewey	WI
Jon Steen	Ridgeway Village President	Ridgeway	WI
Joe Thomas	Ridgeway Town Chairperson	Dodgeville	WI
John Hess	Wyoming Town Chairperson	Spring Green	WI
Brad Schobert	Belmont Town Chairperson	Belmont	WI
Bradley Kettler	Elk Grove Town Chairperson	Platteville	WI
Roy D. Buol	Mayor - City of Dubuque	Dubuque	IA
Mike VanMilligen	City Manager - City of Dubuque	Dubuque	IA
Mary Willett	City Manager - City of Guttenberg	Guttenberg	IA
Geoff Barkalow	City Manager - City of East Dubuque	East Dubuque	IL
Wayne Demmer	Dubuque County Supervisor	Epworth	IA
Gary Bowden	Clayton County Supervisor	Elkader	IA
Pam Jochum	Iowa State Senator	Dubuque	IA
Michael Breitbach	Iowa State Senator	Strawberry Point	IA
Tod Bowman	Iowa State Senator	Maquoketa	IA
Kristi Hager	Iowa State Representative	Dorchester	IA
Abby Finkenauer	Iowa State Representative	Dubuque	IA
Charles Isenhart	Iowa State Representative	Dubuque	IA
Karen Carlock	Town of Vermont	Black Earth	WI
Juanita Hilkin	City of Dubuque	Dubuque	IA
Jane Smith	Engineer, City of Dubuque	Dubuque	IA
Colette Steffen	City of Platteville	Platteville	WI

This page intentionally left blank.

APPENDIX C

Public Comment Coding Structure

Table C-1. Comment Coding Structure

Code	Description
AIR01	General air quality
AIR02	Air - dust
AIR03	Air - equipment emissions
AIR04	Climate change
ALT01	General alternatives/range of alternatives
ALT02	Proposed Action
ALT03	No Action Alternative
ALT04	Alts considered but eliminated from detailed study
ALT05	The original Proposed Action as scoped
ALT06	New alternative proposed
ALT07	Suggested modification to existing alternative
COM01	General communication infrastructure
CUL01	General cultural resources
CUL02	Historical site (non–Native American)
CUL03	Native American
CUL04	Site/traditional cultural property
DATA01	General data request
DATA02	Freedom of Information Act
DATA03	Mailing list or nothing to code
DATA04	Remove from mailing list
DATA05	Confirm receipt of letter
DATA06	Request for cooperating agency status
DATA07	Request for meeting with RUS
DECI01	General decision process
DECI02	Cooperating agency involvement
DECI03	Laws, policies, courts
DECI04	Case law
DECI05	Court decisions
DECI06	Violates law/regulation/policy
DECI07	Federal laws
DECI08	Endangered Species Act
DECI09	USFWS Compatibility Determination
DECI10	State laws, policies
DECI11	County, municipal policies
DECI12	Section 106 consultation
DECI13	Objections - general
DEC14	Project Support - General
EDIT	Editorial, formatting, maps

Code	Description
EFF01	General effects analysis
EFF02	Cumulative effects analysis
EFF03	Addition of project(s) to cumulative effects scenario
EFF04	Mitigation/environmental commitments
GEO01	General geology
HAS01	General public health and safety
INFO01	Mailing list only or nothing to code (do not attach a flag)
INFO02	Request to be removed from mailing list (do not attach a flag)
INFO03	Request copy of *Federal Register* notice
INFO04	Other request for specific information
INFO05	Request for confirmation of receipt of letter
LAND01	General land use
LAND02	Agriculture
LAND03	Livestock/range
LAND04	Commercial
LAND05	Residential
LAND06	Mining
LAND07	Conservation easement
LAND08	Special designations
LAND09	Utility corridors
LAW01	Notice appeal of litigation
LITFIND01	Request for literature cited
LITREV01	Review literature cited
NEP01	General NEPA process
NEP02	Purpose and need
NEP03	Connected action
NOISE01	General noise
OOS01	General out of scope
OOS02	Position, no rationale
OOS03	Already addressed
OOS04	Procedural, already decided by law/reg/policy/direction
OOS05	Procedural, already addressed in DEIS
OOS06	Procedural, addressed through no action alternative
PALEO01	General paleontology
PUB01	General public involvement
PUB02	Collaboration, meetings
PUB03	Government-to-government consultation
PUB04	Comment period
PUB05	Request for correspondence
REC01	General recreation

Code	Description
REC02	Upper Mississippi River National Wildlife and Fish Refuge
REC03	Historic trails
REC04	State natural areas/state parks
REF01	References other project
SOCIO01	General socioeconomics
SOCIO02	Jobs
SOCIO03	Local economics
SOCIO04	Environmental justice
SOCIO05	Resource value
SOCIO06	Market values
SOCIO07	Nonmarket values
SOCIO08	Cost/benefit outcome
SOIL01	General soils
SOIL02	Disturbance, erosion, etc.
SOIL03	Compaction from project
SOIL04	Soil health/organic matter
SOIL05	Sub-soil/tilling/de-compaction
SOIL06	Sensitive soils
TRANS01	General transportation
TRANS02	Roadways
TRANS03	Waterways
TRANS04	Railroads
TRANS05	Aviation
TRANS06	Increased traffic
VEG01	General vegetation
VEG02	Threatened and endangered plant species
VEG03	Noxious weeds/invasive species
VEG04	Wetlands/riparian areas
VIS01	General visual resources
WAT01	General water resources
WAT02	Surface water/groundwater
WAT03	Water quantity/quality
WAT04	Mississippi River
WAT05	Watershed condition
WAT06	Floodplains
WLDLF01	General wildlife
WLDLF02	Migratory birds
WLDLF03	Habitat fragmentation
WLDLF04	Threatened and endangered wildlife