

Kerry Beheler
Citizen Intervenor
Mount Horeb, WI

ENVIRONMENT: “The Driftless Area is recognized as a unique landscape with ecology that is not found anywhere else in Wisconsin [with] “steep forested ridges and deeply dissected river valleys,” and . . . significant social and economic importance to the people who live and recreate here. (Ex.-PSC-FEIS-r-§ XXXIII.) . . .The Public Service Commission may not grant a [permit] unless it determines the project, “will not have undue adverse impact on environmental values such as, but not limited to, ecological balance, public health and welfare, historic sites, geological formations, the aesthetics of land and water and recreational use.” (Wis. Stat. 196.491(3)(d)(4)). The proposed CHC would have irreversible and long-term adverse environmental impacts on the unique Driftless Area’s natural resources and ecology [and] [s]everal natural resource communities in the Driftless Area have not been fully evaluated. . especially birds [numerous preceding citations].”

ALTERNATIVES: The proposed CHC line would carry out-of-state fossil-fuel and nuclear generated electricity, not only wind power [citations]. Less expensive and cleaner non-transmission alternatives would boost solar energy plus storage development, energy efficiency and demand response in Wisconsin [citations]. Alternative transmission solutions would deliver more benefits to Wisconsin ratepayers with fewer environmental impacts [citations]. Battery storage and other advanced transmission solutions may be more cost-effective than traditional asset renewal and wire solutions [citations]. . .The Base Asset with Renewal and Non-Transmission Alternatives includes less costly alternatives, positive cost/benefit economics, and fewer detrimental impacts to public health, local economies, and the Driftless Area ecosystems.”

Gloria and LeRoy Belken

Citizen Intervenors,

Montfort, WI

Dr. David O. Carpenter, Public Health physician and Director of the Institute for Health and the Environment at the University at Albany, New York and Professor in the Department of Environmental Health Sciences within the School of Public Health. . . has stated the following:

“There is strong scientific evidence that exposure to magnetic fields from power lines with an intensity greater than 4 milligauss (“mG”) is associated with an elevated risk of childhood leukemia. While ELF-EMF has both magnetic and electric field components, it is the magnetic fields for which the evidence indicates harm to humans. Some studies have demonstrated significant elevations in childhood leukemia when comparing children living in homes with 2 mG exposure as compared to those in homes with 1 mG or less exposure. There is sufficient scientific evidence to cause concern about leukemia risks at exposures above 2 mG. There is evidence that occupational and residential exposure to magnetic fields is associated with cancer in adults as well, particularly leukemia and brain cancer, and some evidence for elevation in risk of breast cancer. There is strong scientific evidence that lifetime exposure to magnetic fields in excess of 2 mG is associated with an increased risk of neurodegenerative diseases in adults, particularly Alzheimer’s disease. While there is a debate as to which mechanisms are responsible, there is a large body of evidence of ways in which magnetic fields affect tissue at a cellular level, which may be the basis for the development of cancer and neurodegenerative disease. These are reviewed extensively in the Bioinitiative Report. There is no reliable evidence that power-line magnetic fields do not cause cancer, and a large body of evidence that power-line magnetic fields do cause adverse human health impacts, including cancer. In 2002 the International Agency for Research on Cancer (IARC), part of the World Health Organization, declared power line EMFs, which they refer to as extra-low frequency (ELF) EMFs, a Group 2B, possible human carcinogen. Prudent public health policy requires minimizing the effects of power line magnetic fields on human health.”

There were many deniers of tobacco for years in the United States. Can we say the same for deniers of high transmission lines emitting EMF’s (Electric Magnetic Fields)?

Jim Campbell
Citizen Intervenor,
Rewey, WI

I oppose the construction of this high voltage power line. The PSC has intelligent staff that has done it's very own research. Mr Vedviks' Base with Asset Renewal Alternative is a very sensible and cost effective solution. I fail to see why investors are guaranteed a 10.2% profit, while people in route suffer property value loss. Wisconsin should not have to be the escape route for excess power being produced to the west, causing the congestion at the Cassville substation and the Turkey River substation. Which makes Mr. Vedviks' Base with Asset Renewal Alternative, a very attractive solution.

Conclusion; I would like to strongly recommend to the Public Service Commissioners to use your own staffs intelligence and use the Base Asset Renewal Alternative.

Citizens Utility Board of Wisconsin

Intervenor,

“The Citizens Utility Board (CUB) intervened in this proceeding to assess whether the Project’s quantitative and qualitative benefits outweighed the Project’s cost, and whether the Applicants’ analysis included assumptions or conclusions that, if not realized, would significantly reduce or eliminate Applicants’ estimated Project benefits.

Overall, instead of a total reliability benefit of \$87.2 million, the Project provides PV reliability benefits of \$37.84 million [citation].

With several significant risks underlying Applicants’ Energy Cost Savings analysis, evidence of speculative reliability benefits is further indication that the Project could produce net costs rather than net savings for Wisconsin ratepayers, and it creates reasonable doubt about the Project’s need. . . . Analysis from Commission staff and other parties has shown that Applicants’ estimated Energy Cost Savings could be reduced to the point where estimated Asset Renewal and Avoided Reliability benefits provide greater economic benefits in other futures as well [citation]. If Energy Cost Savings fall away and reliability benefits drive economic savings, the Project is essentially an oversized reliability project that is only cost-effective due to MISO’s MVP cost allocation. . . .

Commission staff assessed targeted [existing low voltage transmission] line uprates (Base with Asset Renewal) to better understand how the absence of the Project would impact system reliability [citation]. The results of this analysis show that upgrading certain transmission system elements could also provide reliability benefits by reducing power flows and avoiding thermal overloads on monitored branches [citation]. Adding the Badger Hollow and Two Creeks solar farms to the modeling shows lower power flows across constrained system elements than the Project [citation]. This suggests that the **Base with Asset Renewal alternative** would be well suited to integrate renewable generation in Wisconsin. (Id.) Commission staff also ran sensitivities involving line uprates to test the economic benefits of the Project [citation]. Reducing transmission system congestion in the modeling produces significant Energy Cost Savings, and it is likely that the Base with Asset Renewal alternative would also produce economic benefits. In addition, these line uprates come at a much lower cost than the Project, when considering either the Project’s Wisconsin allocation, or its total cost to MISO.

Battery storage is another viable Project alternative. As has already been discussed, Applicants developed a supplemental NTA in which battery storage could provide 1,382 MW of transfer capability, at a cost of \$194 to \$314 million [citation]. While the economic benefits of this alternative are not in the record, it could be assumed that a significant increase in transfer capability could reduce congestion and produce energy cost savings. Such an assumption should not stand in for a benefits calculation, but it could stand as the basis for exploring this alternative further. Other benefits, however, are immediately concrete. For example, battery storage has a unique ability to improve flexibility on the bulk power system.

Applicants have failed to establish that this Project is needed. The Project does not mitigate a pressing reliability need, and the Project’s reliability benefits do not outweigh its cost to Wisconsin ratepayers. In addition, the Project’s Energy Cost Savings benefits are subject to multiple areas of risk that could

significantly reduce these savings, even under the favorable AAT futures. While Applicants lean heavily on purported benefits from increased import of low-cost wind generation, they have not calculated these benefits. It is also likely these benefits, if quantified, would not be significant. Finally, several alternatives Applicants have partially, but not completely, explored appear poised to offer greater benefits to Wisconsin at a lower cost and with less severe environmental impacts than the Project.

In light of this evidence, Applicants fall short of fulfilling several statutory criteria that are required for the issuance of a CPCN [permit]:

1. The Project does not satisfy Wis. Stat. § 196.491(3)(d)2.: Applicants have not shown that the Project satisfies a reliability need, and the Project's economic benefits are likely much lower than Applicants have estimated. Further, any public policy benefits that increased wind enablement can provide to Wisconsin are ambiguous at best — and would likely provide a greater benefit to independent power producers investing in generation in other states.
2. The Project does not satisfy Wis. Stat. § 196.491(3)(d)3.: The Project is not in the public interest when considering alternative sources of supply, alternative locations, economic, or reliability factors. Record evidence indicates that targeted line uprates, utility-scale solar, and energy storage would provide similar benefits to the Project, at a lower price.
3. The Project does not satisfy Wis. Stat. § 196.491(3)(d)3t.: The Project's ability to relieve system congestion is speculative, and it could create increased internal congestion in certain futures. Even with the MISO cost allocation for the Project, it is unclear whether it will provide reliability or economic benefits in excess of its cost.
4. The Project does not satisfy Wis. Stat. § 196.49(3)(b)2.: Though the Project's allocated PVRR to Wisconsin is \$67 million, it is a 100-mile transmission line that would remain in service for 40 years. With several smaller alternatives that could also provide congestion relief, enhance system reliability, and help bring renewable generation onto the grid, the Project appears overbuilt in relation to its estimated benefits.
5. The Project does not satisfy Wis. Stat. § 1.12(4): Energy storage and utility-scale solar rank high on the list of state energy priorities and are also cost-effective and technically feasible. They should be considered before the proposed Project.

For the reasons described in this brief and in testimony, CUB believes that the record evidence does not support approval of this Project.

Driftless Area Land Conservancy Wisconsin Wildlife Federation Intervenor

No party argues that the line is “needed” for reliability; (2) [PSC] Staff concluded that the costs of the line exceed its benefits in most future scenarios; and (3) Applicants failed to consider cost-effective and technically feasible alternatives that could potentially defer or avoid the need for the line altogether. . . The PSC should instead determine whether the CHC line is now in the public interest by looking at the world as it exists today—not as it existed ten years ago when the MVP portfolio was approved.

Staff’s and CUB’s testimony persuasively refute Applicants’ cost-benefit analysis. Using Applicants’ own methodology, Staff’s lead project engineer, Alexander Vedvik, determined that the Project “could have negative net benefits to the MISO footprint” in almost every one of the modeled futures. This includes:

- Negative \$570.96 million for the Existing Fleet future.
- Negative \$576.53 million for the updated Existing Fleet future.
- Negative \$318.54 million for the Policy Regulations with Low Demand/Energy future.
- Negative \$283.04 million for the Policy Regulations future.
- Negative \$266.68 million for the updated Policy Regulations future.
- Negative \$274.58 million for the Policy Regulations with Foxconn future.

Only the Accelerated Alternative Technologies future showed positive economic benefits for the region. Staff’s Wisconsin-specific analysis of the Policy Regulations future, which Applicants concede is “most likely,” “shows near zero 40-year net benefits (\$2.87 million using a nominal discount rate of 6.4 percent and negative \$4.35 million using a nominal discount rate of 8.41 percent) to Wisconsin transmission customers, using the applicants’ formula and methodology.”[citation]. The Applicants agree with MISO stakeholders that the Policy Regulations (PR) future [with minimal benefit or loss] is the most likely future to occur.

[T]he proposed CHC project’s costs exceed its benefits in most modeled scenarios, even before considering the serious methodological flaws identified by Ms. Neal and Mr. Desu. Applicants have not met their burden to prove that “the benefits of the high-voltage transmission line are reasonable in relation to the cost of the line” re Wis. Stat. 196.491(3)(d)(3t).

Essentially, the Applicants are arguing that the PSC should ignore potentially more cost-effective transmission solutions because the CHC project is “on sale” for Wisconsin customers [as a regionally cost shared transmission line]. . . The CHC project isn’t really “on sale.” It [would] need to be paid in full, with a rate of return, by customers throughout the MISO region [with] full out-of-pocket ratepayer costs for the CHC Project to be approximately \$2.2 billion over the 40-year life of the Project.

The costs of **battery storage** and other advanced transmission technologies have fallen dramatically and are continuing to plummet as massive investments in battery manufacturing and supply chains are occurring throughout the world. [citation]. These technologies were not widely available when the CHC Project was planned more than ten years ago and have not been studied by the Applicants in this case.

This is the wrong time for the PSC to lock in a large 40-year investment in a costly high-voltage transmission line. Based on this record, the CHC Project is “unreasonably in excess of the probable future requirements”

Environmental Impacts. Applicants (and the Final Environmental Impact Statement) seriously understate this project’s adverse environmental impacts on the Driftless Area’s natural resources and communities. DALC/WWF’s expert witnesses Mr. Meine, Mr. Meyer and Prof. Waller explained the undue impacts in detail. Many people testifying at the public hearings explained additional harms. As Mr. Meine testified:

The [CHC] project will have significant and wide-reaching negative, harmful impacts on historical, ecological, recreational, scenic and aesthetic resources in the Driftless Area, which is a distinctive and unique region highly valued for these and other natural resources. [citation].

There is no urgent need for this proposed transmission line. In fact, Staff’s analysis shows that a two-year delay in the in-service date until 2025 would likely produce positive economic benefits for Wisconsin ratepayers [citation]. There is ample time for the PSC, if it so desires, to fully and fairly consider ways that battery storage, solar generation, existing transmission asset renewal, and deployment of other advanced transmission technologies, together, are a better alternative that would save money and protect Wisconsin’s most scenic landscape, vital natural resources, agricultural lands, and private property rights.

Dane County Intervenor

“For the reasons set forth below, the Applicants have failed to meet their burden to justify the issuance of a certificate of public convenience and necessity for the construction and operation of the Project. As result, the Commission should deny the application.

Applicants Have Failed To Demonstrate There Is A Sufficient Need For the Project. Despite years of study and analysis, Applicants’ attempt to demonstrate the need for the Cardinal Hickory Transmission line did not withstand Commission’s staff review. Applicants went to great lengths to justify the Project by modifying how the economic need of high-voltage transmission lines are typically calculated, overstating the reliability benefits associated with the Project and overstating the impact of cost-sharing. By doing so, Applicants have undermined the accuracy of their own analyses. As a result, the Applicants have not met their burden with regard to the economic need of the Project, and the Commission should deny the CPCN.

“ . . . [T]he County sought to make transparent the long-term costs and benefits of such a high-voltage transmission line so that the Commission could render a decision that would thoroughly evaluate the Applicant’s argument in support of the need for the Project. In the end, the Commission did not require either analysis to be conducted, and consequently, the County set forth its opposition to the Project, pending the receipt of the additional analyses it had previously requested. . . Commission staff nevertheless conducted a thorough analysis on Applicants’ modeling and projections.

At the conclusion of its analysis, Commission staff questioned how the Applicants estimated the economic need for the Project for various reasons [citation]. Foremost, staff noted that rather than using the “classical capital budgeting approach” to demonstrate economic value from the perspective of the owners, Applicants chose to determine value from the customers’ perspective [citation]. The different approach, however, had “material shortcomings” which ultimately led to staff recommending that the Commission reject the Applicants’ approach [citation]. Based upon staff’s analysis and recommendation, Applicants’ attempt to shoehorn its novel way to justify the Project must be discarded.

Staff concerns regarding the Applicant’s justification for the Project did not end with the unusual change to how economic need was shown. Other Commission staff questioned the Applicants’ position on matters related to the reliability benefits associated with the Project, the asset renewal benefits associated with the Project, and the impact of the cost-sharing expenditures [citations]. Staff also alerted the Commission to the fact that the benefits of the Project may have either net positive or net negative outcomes to Wisconsin transmission customers. [citation]. Put another way, staff determined that the economic benefit of the Project was dependent on the different assumptions inputted in the Applicants’ models which ultimately demonstrated a lack of consensus [citation].

This litany of concerns is further compounded when one looks at yet another evaluation conducted by staff. Staff conducted an analysis of the impact of delaying the in-service date on the economics of the Project [citation]. The analysis revealed that a two-year delay in the construction of the Project would yield positive economic benefits to Wisconsin customers in thirty-four out of forty-four different future scenarios [citations].

Applicants cannot possibly demonstrate that there is justification for this Project, when Commission staff have shown that a delay of two-years will only serve to bolster Wisconsin transmission customers.

It is undisputed that Commission staff's role is to provide objective impartial evidence related to the need for the Project [citation]. In this case, staff have shown that there exists significant concerns with how Applicants have tried to prove that there is an economic justification for the Project. Although Dane County had requested a different set of analyses in its resolutions, the Commission staff's own studies demonstrated what the County had anticipated: there is no clear justification for the Project at this time. . . Accordingly, the Commission should protect the consuming public and deny a CPCN to the Applicants."

Mike Dubis
Citizen Intervenor
Cross Plains, WI

“This brief is submitted on behalf of our family, consisting of myself, my wife, Michelle (“Shelley”), and our two young children, Sally and Wesley. Our home is only 220 feet from the assumed centerline of the Project as proposed by the Applicants. We garden and regularly use the property, and Sally and Wesley play regularly in the area that would be directly under the 345kV high voltage electrical conductors.

Proximity is critically important here, both to us, and to other landowners. It is not just the visual blight that concerns us. The record shows our concerns about the effects of transmission lines on children to be both serious and well-grounded. Children are a disproportionately at risk. They are a discrete population. Recent evidence indicates elevated cancer risk for children living near powerlines. [citation] being EPRI research, which Applicants explicitly deem reliable .

The FEIS indicates that occupants of a residence within 100-300 feet of the transmission lines may experience estimated magnetic field levels between 0.80 mG to 7.0 mG. Research provided by the Applicants themselves suggests that average magnetic field exposure levels greater than 3-4 mG increase the risk of childhood leukemia by a factor of 1.5 to 2 [citation]. We may have to move if lines are approved to go over our property. [Alternate route] X02 mitigates or avoids these risks and concerns.

Beyond EMF, [alternate route] X02 further minimizes or eliminates potential risks to residences and their occupants of induced voltages, contact current, noise pollution, and communication and electronic impacts.”

Linda G. Grice
Public Intervenor
South English, IA

“The Cardinal Hickory Creek Project Applicants have not carried forth their burdens of proof on need, siting and the environment or economic benefit for the ratepayers. Through the Application the Applicants have not met the Wisconsin PSC/ DNR Required Priorities for meeting Energy Demand. Indeed, the Applicants’ major consideration seems to be only the pocketbooks of their investors.”

“Under Wis. Stat. § 196.491(3)(d)4, the facilities must not have undue adverse impact on environmental values such as, but not limited to: ecological balance, public health and welfare, historic sites, geological formations, aesthetics of land and water, and recreational use.

During the hearing there were hours and hours of testimony by Schwarzmans and Zastrow about the devastating effects of the Applicants’ Vegetation Management program. Horrible stories of trees being slowly killed by indiscriminate helicopter trimming, and lack of care for our environment abounded. Photos of trees stripped of their tops or side branches were shown by Schwarzmans.

Dr. Waller, a professional conservationist and biologist testifies, “ATC’s vegetation management on Mr. Schwarzmans’ property appears to have been sloppy, slipshod, unprofessional, and unnecessarily destructive of both commercial and natural values of the trees on his land. These practices fall short of any actual, or imagined reasonable, guidelines for careful professional management. They also appear to fall short of the Applicants’ own expectations, suggesting a lack of monitoring and enforcement of reasonable standards for vegetation management.”

Under Wis. Stat. § 196.491(3)(d)6, the [transmission line] must not unreasonably interfere with the orderly land use and development plans for the area involved.

The CHC [transmission line] would interfere with normal land use in agricultural areas and in recreational areas. It would destroy property values and local tax bases. . . The impact is found to be greater than the [state law determined impact compensation] fee value of the easement area by a substantial margin. This means that there must be severance damage, damage to land outside the easement. While this result was statistically significant in the Wisconsin Study, it has been shown to be robust as a result of being almost identical in the Illinois Study. [citaion]

Residential solar or an NTA Solution would not interfere with land use or have property value or adverse environmental effects. At the [intervenor] hearings in Madison we heard excellent testimony from a number of noted engineers on the newest methods of energy generation that don’t need huge transmission lines and windmills to function. New technology has outdated cross-country transmission lines such as the proposed CHC. New technologies involving battery storage and solar are much greener and also more efficient than transmission lines (the CHC would also carry non-green energy). Individual, business, and municipal local solar generation and battery storage will make our community thrive. New technologies developed and installed by local people will stimulate our economies instead of destroying our views and environment. New technologies are unobtrusive and will make us independent...not dependent on far-away investors. New technologies using solar and storage are 100% “green” energy which is the top priority (after conservation) of the Cardinal Hickory Creek Final Environmental Impact Statement. Asset Renewal and NTA’s with storage will provide more green

energy than any other system and still meet the requirements.

Alan Jewell and Richard Jenkins

Public Intervenors

Cobb, WI

“Individual Hardship to Jewell Jenkins Intervenors are extreme, particularly because use of Route Segment R-09 at Jewell homestead would destroy its historical value and aesthetic, taking their use and enjoyment of their property. . . The Jewell’s home, also known as the William J. Bennett House, is located at 3362 County Road B, Dodgeville, Wisconsin (County Road B, north side, 1/4 mile east of County Road Q), and was built in 1860. This home is listed by the Wisconsin Historical Society’s Wisconsin Architecture and History Inventory, reference number 46941. It is a Greek Revival home, built of stone by Cornish settlers, and has been in the Jewell family since 1915. . . whether on the north or south side of the road, transmission in the vicinity of this historic home would diminish its historical and monetary value by degrading its setting and through a dramatic change in the viewshed and aesthetics. [citation] Construction of this transmission line, forever altering the historic character of the area, would take away much of the use and enjoyment, the intrinsic value, of this property.



The proposed [345 kV transmission line] facility does not satisfy the reasonable needs of the public for an adequate supply of electric energy and the design and location or route is not in the public interest considering alternative sources of supply.

The “need” for this project is based on an economic model, one based on desire for benefits, and not an electrical reliability need as set forth in Wisconsin statute, requiring a determination that “[t]he proposed facility satisfies the reasonable needs of the public for an adequate supply of electric energy.” Wis. Stat. §196.491(3)(d)2; . . .there are a few points regarding need that stand out. The focus of the “need” statute is the need of the public, but the focus of “need” in the project application and the MISO MVP 17 project portfolio is the “customer.” The “customers” here are not ratepayers, and “customers” are not the public, they are the utilities themselves [as shown in this cross

examination:]

Jewell Jinkins: And you just said a word that I think we need to define. I haven't heard that yet. How are you defining "Wisconsin customers?"

MISO for the Applicants: For our analysis, Wisconsin customers starts at the Wisconsin utilities that are serving load. So then the end use load-serving customers are customers of those Wisconsin customers.

Jewell Jinkins: So that's not related to -- that's distinct from ratepayers, correct?

MISO for the Applicants: Correct. The ratepayers are customers of those utilities.

The focus is on those "customers" that will receive the benefits, with emphasis on, greater benefits to, those west of Wisconsin. However, it is not easily determined exactly what the costs and benefits are to Wisconsin. The Applicants prepared an estimate of total benefits over 40 years of various alternatives: . . . [citations] These "net benefits" in Table 2 are benefits over 40 years, thus calculating the annual "benefits" offered, they range from, at the low end, just \$567,500 annually, the midrange benefit is just \$3.23 million, and upper benefit is just \$8.7325 million annually.

If that's the extent of the benefit to Wisconsin, where are the MVP benefits going? The costs of the MVP [regional transmission line] portfolio have risen from \$5.197 billion to \$6.651 billion, . . . and all the MVP projects have been built but Cardinal-Hickory Creek, thus it's important to look at the meaning of the shift. Claims were made that failure to build one of the projects could have a "negative economic impact on ratepayers in portions of the MISO footprint, including Wisconsin." [citation] However, testimony in the record reflects that, as engineering judgment, if the project were not built, and as the last of the MVP projects under consideration, if the project is not individually of much, or of no, benefit, the balance of benefits may increase if not built. [citation]. Throughout this proceeding, the term "customers" has been used, and not ratepayers, because it is the [utility] "customers" that will receive the benefits.

On these facts, what are the reasonable needs of the public and the public interest? How are they considered? This project provides greater benefits to states west of Wisconsin, and not Wisconsin.

A combined "Base with Asset Renewal" and "Non-Transmission Alternatives" is a reasonable and feasible alternative which should be developed in the EIS. Although there were multiple alternative system alternatives analyzed, there was no thorough review of a combination of alternatives. The "Base with Asset Renewal" case came close to addressing the full claimed "need" at a reasonable cost, as did the "Non-Transmission Alternatives," particularly considering the advent of reliable and cost-effective storage. [citations] The "base with asset renewal alternative" would eliminate the need to perform scheduled upgrades, and with reasonable certainty would increase transfer capability [citations]. There was no "Base with Asset Renewal" AND "Non-Transmission Alternatives" alternative combination studied sufficiently to be considered as an alternative [citation].

The Public Service Commission has not properly developed route and system alternatives, as required by the Wisconsin Environmental Policy Act and the National Environmental Policy Act, and the project cannot go forward until the environmental review is in compliance, until alternatives are developed, analyzed, and a determination made regarding the least impactful alternative. The Cardinal-Hickory Creek transmission project should not be granted a Certificate of Public Convenience and Necessity."

Chris and Louise Klopp

Citizen Intervenor

Cross Plains, WI

“My conclusions with respect to Alternatives to the project are as follows:

- A. There are several good alternatives to CHC.
- B. Choosing an alternative to CHC will save ratepayers money.
- C. Choosing any form of NTA will foster reduction of carbon dioxide by leaps and bounds over the project.
- D. Wisconsin is not desperate for ‘Wind from the West’, we have many ways to increase renewable generation within our own state. It is utilities and transmission companies who seeking to profit from that,”Wind from the West’ who are desperate to force it onto our plate. Choosing to place generation at or near locations of load is conservative, frugal, wise and allows us to right-size our energy production.
- E. Any of the alternatives eliminate virtually all, if not all of the negative impacts associated with the project, to the environment, local economies, landowners, the natural beauty of the Driftless area and to the quality of life southwestern Wisconsin knows and loves.
- F. My first choice would be to combine BWARA with an optimized NTA system like those presented by Mr. Powers or Mr. Chao.
- G. My second choice would be to select BWARA on its own (with the knowledge that individuals, businesses and communities can continue to choose to add renewables, to pursue energy efficiency and to participate in load management on their own at their own expense).
- H. My third choice would be to choose an optimized NTA system like those presented by Mr. Powers or Mr. Chao.
- I. My fourth choice would be to choose the No Action alternative (once again, knowing that individuals, businesses and communities can continue to choose to add renewables, to pursue energy efficiency and to participate in load management on their own at their own expense).

“In making a decision on this project, I ask the Commissioners to consider what we have to lose if the project were to be approved and those numerous concerns detailed by intervenors and the Public come to pass. Even the slightest uncertainty should lead to a decision to deny, with the opportunity for more study. Several experts on record in this case have come to this same conclusion. We are at a crossroads and the Commission must decide: Will it be a defining moment or will we continue on a path that we may regret?”

Joel Kurth
Citizen Intervenor
Waunakee, WI

In *FPC v. Hope Nat. Gas Co.*, 320 U.S. 591 (1944), the U.S. Supreme Court states, “The rate-making process under the Act, i.e., the fixing of “just and reasonable” rates, involves a balancing of the investor and the consumer interests.”

[Regarding] the opportunity cost of the ratepayers. [...] If the FERC allowed ROE [Return on Equity] doesn’t square with the market in some fashion, ratepayers will over or underpay for the project, depending on the case. . . All financing costs that are included in the revenue requirements calculation constitute the cost of capital for ratepayers for this project, because that is what we are paying for it. The Applicants’ recommended discount rate does not adjust for risk and in fact assumes the risk of the project is equivalent to a short-term loan to an investment grade electric transmission company. [T]he FERC rate making process serves as the arbiter the free market would play in a non-regulated industry. As such, the discount rate used in evaluating the Project must have a direct relationship with the allowed return on capital for the Applicants.

Applicants underestimate customers’ cost of capital using a theoretically unsound construct, then: (1) seek to use that number as discount rate in evaluating the Project, even though customers don’t legally own the Project; (2) claim they merely “sell transmission services to customers,” although the nature of the ratepayers responsibility is similar to that of an equity holder, which implies the discount rate should be much higher than a simple refund rate.

Given the large degree of uncertainty surrounding the supposed economic benefits of the Project noted above and the positive impact of the low cost BWARA, which significantly reduces the net benefits of the Project while maintaining the environmental and aesthetic appeal of the Driftless region, the Applicants fail to prove the benefits of the high-voltage transmission line are reasonable in relation to the cost of the high-voltage transmission line, and will not cause undue environmental impact, as required in the statutes. Therefore, the Certificate for Public Convenience and Necessity should be denied.”

George Schwarzmann

Public Intervenor

Belmont, WI

“One need that ATC and MISO love to use as justification for the increased consumption of commercial electricity and, therefore, the CHC project is the increase in electric cars that [potentially] need recharging with grid power. Following is MISO’s cross examination of engineer Bill Powers who designed Non-Transmission Alternatives for the CHC project:

MISO Attorney, Jeffrey Small: “Mr. Powers, have you observed or do you know of the introduction of electric vehicles into the automobile fleets in both the United States and internationally?” **Powers:** “I am aware of the introduction of electric vehicles.” **MISO:** “And do you agree that this introduction has been pushed by improvements in battery technology?” **Powers:** “I would agree with that.” **MISO:** “And do you also agree that this introduction has been pushed by environmental concerns over global warming?” **Powers:** “Yes.” **MISO:** “Do you agree that continued introduction of electric vehicles that of course must be hooked up to charging stations from time to time will increase the demand for electricity?” **Powers:** “I happen to own an electric vehicle and I am familiar with their power demands.” **MISO:** “And your electric vehicle increases your demand for electricity your personal demand for electricity is that correct?” **Powers:** “That is correct. There's no demand increase for grid power supply for my particular installation.” **MISO:** “Well, if the fleet of automobiles in the United States increasingly becomes electrical-- we increase the number of electric vehicles in the United States, we're going to have an increase in the electric demand is that correct?” **Powers:** “You can have an increase in the electric demand, but it doesn't necessarily need to come from grid power. One of the points of the optimized Non-Transmission Alternatives included in my testimony is that the power be generated behind the meter at commercial and residential buildings. That power can include additional power needed to supply electric vehicles. Electric vehicles will not necessarily increase demand for electric power at the grid level.” **MISO:** That concludes my cross examination.”

“On July 10, 2019, I had a 13.5 kW solar system installed on my farm in Belmont Township, Wisconsin. Over the life of my solar system, Eagle Point Solar Company (Dubuque, Iowa) estimates that, “276 tons of CO2 will be eliminated from the environment.” Another intervenor will have a 9.75 kW installation completed on July 15, 2019. . . I am going become a crusader for individual (not large commercial solar fields) home, farm, school, and business solar energy. This will dramatically decrease the need for commercial electricity as well as dramatically decrease CO2. . . WPSC has an opportunity here to break with the outdated thinking and operation of the past and embrace THE NEW ERA OF ENERGY TECHNOLOGY, which is here now and accelerating.”

Joe Schwarzmann

Public Intervenor

Stitzer, WI

“ Former Wisconsin Department of Natural Resources Head George Meyer in reviewing my Direct Testimony and Exhibits . . . concludes, “ATC [American Transmission Co.] is not following sound forestry or grasslands management practices along its ROW [Right of Way]. In fact, the vegetation management efforts of ATC appear to be significantly counterproductive to sustainable forest or grassland management, and are certainly not an enhancement to those ecosystems. In addition, the practices being undertaken by ATC have significant adverse impacts on property outside of the ROW.”

“Professor Weller’s (Professor of Botany, UW) response to my account of ATC’s vegetation management . . . , “ATC’s vegetation management on Mr. Schwarzmann’s property appears to have been sloppy, slipshod, unprofessional, and unnecessarily destructive of both commercial and natural values of the trees on his land. These practices fall short of any actual, or imagined reasonable, guidelines for careful professional management. They also appear to fall short of the Applicants’ own expectations, suggesting a lack of monitoring and enforcement of reasonable standards for vegetation management.”

“I was unable to find a single Applicant representative or witness, other than the VM manager responsible for routine maintenance on the existing ROW 2 years ago, who has been near most of this route, and then only an admitted drive by. I suggest the “robust process” is nothing short of a sham, a blue line drawn next to a black line. Technically, I’m sure the line could physically be built, but the cost to the environment would be enormous. For short and long term environmental reasons this project must be denied.”

Eli Stoltzfus
Old Order Amish
Public Intervenor
Belmont, WI

“I am opposed to the CHC powerline. The construction of a high-voltage transmission line would have an overwhelmingly negative impact on our lifestyle, our way of living farming with horses. In the construction phase our horses are scared of big trucks and therefore it would be hard to operate our farm. Horses pulling buggies on the road is our main means of traveling and horses do not like strange trucks and equipment-- often being hard to handle in situations like transmission line construction.

Our community consists of older people; middle aged, young and old alike are very dismayed at seeing a line like this in proposal. We refrain from using electricity for religious reasons so these lines cause more reasoning for distress.

We also fear for a large disturbance of the natural peace around us, like birds, singing frogs croaking in nearby ponds, cricket singing at night. Studies show that wild and domestic animals do not graze close to these lines-- therefore cows and horses, alike, would be less productive, more restless and reproduction being a very serious problem.

And what directly affects a small part of our community affects everybody and our community as our way of living and her way of communication our way of helping each other are all very dependent upon one another throughout the whole community. We have neighbors with small children and we have small children and grand children which would be very negatively impacted by these huge unnecessary high transmission lines.

In 2018, I asked for more information on studies to show how these transmission lines are needed. I have not been provided with any information concerning the needs of this CHC line.”

Village of Montfort
Municipal Public Intervenor
Montfort, WI

“The Village of Montfort has shown that the presence of the affiliated electrical facilities, i.e., the [Badger Hollow] solar and [Red Barn] wind farms, and their related support facilities, including power lines, would have a combined affect of creating an “industrial energy center” feel to the village. . . surrounded by energy plants. [citations]. Such landscapes do not enhance the quiet, bedroom community feel that attracts the current village residents and logically any future prospective residents essential to the community’s viability into the future. This change in the visual environment with motion of big blades, noise issues, light flicker, night strobing lights of the wind farm, combined with the expansive mirror reflecting surfaces of the solar farm will negatively impact the village as a whole. The Village of Montfort has identified a significant number of legitimate concerns justifying the fact that it will suffer a significant individual hardship if the Project is constructed. Overall, the harm to the Village of Montfort comes from the projected loss of property values in the Village of Montfort ranges from -7%, -15% and -20% for properties within the Village of Montfort. This reflects a substantial and detrimental reduction in in property values and subsequent loss of annual tax revenue from property taxes for the Village. This harm comes directly from the Applicants’ unprecedented request to not only run the project through the Village of Montfort but moreover to build a substation of this size, both of which would dominate the vista of anyone approaching the Village. . . For these reasons, the Village of Montfort requests that the Commission disapprove the application for the CHC Project.

Lila Zastrow and Dave Hendrickson

Public Intervenors

Seymour, WI

“This antiquated system is not in anyone's best interest except the Applicants’. If we could design an electrical system from scratch using today's technology it would not look anything like the centralized behemoth in front of us. Thoughtful utility development should lead us away from centralization not doubling down on it.

To add insult to injury the applicants are given control of our properties and exert their control to the fullest. This means scorched earth practices with the added bonus of arbitrarily killing trees outside the ROW. There is no reason for this assault on nature other than it is expedient and doesn't take any thought process. . . We have lost all fruit production on five (now almost six) acres of land for the last eleven years. In their place we battle Reed Canary grass, ragweed, and now invasive rye grass seeded in by ATC with the blessings of the DNR and (Environmental?) monitors.

Constant mowing has opened the soil to opportunistic vegetation. Poison ivy has spread throughout the ROW. I am highly allergic and have been living with the rash for the past few weeks. We have dug out nearly 1000 Canada Thistle because of ATC's careless processes. These invasive/noxious plants are just now beginning to make their appearance and in the newly opened environment they will continue to flourish. Past history has shown that it is left up to the land owner to deal with the problem. ATC practices will ensure that the ROW becomes a wasteland.

We oppose the Cardinal Hickory Creek (CHC) line. It is a wasteful, unaccountable and backwards expansion transmission line. . . When this transmission pyramid scheme collapses of its own weight we the taxpayers of Wisconsin, not just the rate payers, will be left holding the bag. We encourage the PSC to select the Staff's Base With Asset Renewal Alternative to begin making improvements on our existing 60-70 year transmission lines, instead of the proposed CHC project.

CHC is not needed for adequate power or for reliability. PSC staff have shown it would not deliver savings as ATC's claims. The transmission builders provide no evidence or guarantees of CO2 emission reductions over time.”