

**STATE OF MINNESOTA
PUBLIC UTILITIES COMMISSION**

Katie Sieben	Chair
Valerie Means	Commissioner
Hwikwon Ham	Commissioner
Joseph Sullivan	Commissioner
John Tuma	Commissioner

**In the Matter of the Application for a
Certificate of Need for the Big Stone—
Alexandria—Big Oaks Transmission
Project**

**Docket No. E002, E017, ET2, E015,
ET10/CN-22-538**

**COMMENT FROM JOINT COMMENTERS ON THE MERITS OF THE
CERTIFICATE OF NEED APPLICATION**

April 23, 2024

TABLE OF CONTENTS

INTRODUCTION1

ANALYSIS2

 I. The Project Provides Benefits to Society in a Manner Compatible with
 Protecting the Natural and Socioeconomic Environments.....3

 A. The Project Contributes to State Energy Needs by Improving
 Regional Reliability.4

 B. The Project Will Provide Socioeconomic Benefits by Reducing
 Exposure to Price Volatility.5

 C. The Project Will Enhance Future Development by Adding
 Transmission Capacity, Which Will Enable Construction of New
 Renewable Generation.6

 D. The Project Protects and Enhances Environmental Quality by
 Increasing Access to Renewable Energy.7

 II. The Project is Necessary to Comply with Minnesota’s New Carbon-
 Free Electricity Standard.....9

CONCLUSION.....10

INTRODUCTION

Audubon Upper Mississippi River, Clean Grid Alliance, Center for Rural Affairs, Fresh Energy, Minnesota Center for Environmental Advocacy, Sierra Club, the Citizens' Utility Board of Minnesota (“CUB”), and Union of Concerned Scientists (collectively the “Joint Commenters”) submit this comment jointly per the Minnesota Public Utility Commission’s (“the Commission”) February 21, 2024, *Notice of Comment Period on the Merits of the Certificate of Need Application* for the Big Stone—Alexandria—Big Oaks Transmission Project (“the Project”). The Joint Commenters' will address the second issue in the Notice of Comment: whether the Commission should grant a certificate of need for the proposed project. The Joint Commenters assert that a certificate of need should be approved for the Project under Minnesota Statutes section 216B.243 and Minnesota Rules Chapter 7849. Additionally, the Joint Commenters emphasize the importance of the Project for complying with the State’s new Carbon-Free Electricity Standard.

Xcel Energy, Great River Energy, Minnesota Power, Otter Tail Power Company, and Missouri River Energy Services, on behalf of Western Minnesota Municipal Power Agency (collectively “the Applicants”), are requesting approval of a certificate of need for a new 345 kV transmission line between Big Stone City, South Dakota, and Sherburne County, Minnesota.¹ The complete Project will stretch approximately 208 mile in length.² The Project was approved by the Midcontinent Independent System Operator (“MISO”) as part of the Long-Range Transmission

¹ See generally *In the Matter of the Application for a Certificate of Need for the Big Stone South – Alexandria – Big Oaks Transmission Project*, Minn. Pub. Util. Comm’n Docket No. E002, E017, ET2, ET10/CN-22-538, Initial Filing – Certificate of Need Application (Sept. 29, 2023) [hereinafter Initial Application].

² See *id.* at 26 (estimating that the western segment will be 100 miles long and the eastern segment will be 105 to 108 miles long).

Planning (“LRTP”) Tranche 1 Portfolio.³ The Project is needed to improve reliability and provide additional transmission capacity to enable new renewable energy resources.⁴

The Joint Commenters support the Project due to its ability to reduce greenhouse gas emissions, enhance system reliability during the clean energy transition, and improve the deliverability of both wind and solar resources from the Dakotas to Minnesota. The Project increases the amount of low-cost, clean energy flowing into Minnesota by alleviating transmission congestion and reducing curtailment time. Adding additional wind and solar energy to the regional grid will benefit Minnesota’s environmental quality and will be critical for compliance with its Carbon-Free Electricity Standard⁵ because it reduces reliance on coal and natural gas use.

ANALYSIS

The Project qualifies as a large energy facility under Minnesota Law. Minnesota Statute defines a large energy facility, in part, as any 200 kV (or greater) transmission line longer than 1,500 feet OR any 100 kV (or greater) transmission line that crosses state lines and has more than 10 miles in Minnesota.⁶ The Project meets both these definitions⁷ and therefore requires a certificate of need pursuant to Minnesota Statute 216B.243, subd. 2. Minnesota law defines the criteria that the Commission must use to evaluate whether a certificate of need should be granted for a large energy facility.⁸ Minnesota’s administrative rules, underpinned by this statutory

³ *Long Range Transmission Planning*, MISO, <https://www.misoenergy.org/planning/long-range-transmission-planning/> (last visited Apr. 22, 2024).

⁴ Initial Application at 5.

⁵ Minn. Stat. § 216B.1691, subd. 2g (requiring all electric utilities to provide 100% carbon-free electricity by 2040).

⁶ Minn. Stat. § 216B.2421, subds. 2(2), 2(3).

⁷ See Initial Application at 26 (stating the Project is an approximately 208 mile 345 kV transmission line starting in South Dakota and ending in Minnesota).

⁸ Minn. Stat. § 216B.243, subd. 3.

authority, require the Commission to issue a certificate of need upon making the following four determinations:

- A. The probable result of denial would be an adverse effect upon the future adequacy, reliability, or efficiency of energy supply to the applicant, to the applicant's customers, or to the people of Minnesota and neighboring states;
- B. A more reasonable and prudent alternative to the proposed facility has not been demonstrated;
- C. The proposed facility, or a suitable modification of the facility, will provide benefits to society in a manner compatible with protecting the natural and socioeconomic environments, including human health; and
- D. The record does not demonstrate that the design, construction, or operation of the proposed facility, or a suitable modification of the facility, will fail to comply with relevant policies, rules, and regulations of other state and federal agencies and local governments.⁹

The Joint Commenters assert that the Applicants have provided a sufficient basis for all four determinations, and therefore the Commission must issue a certificate of need. However, this comment will focus on the third determination. Additionally, the Joint Commenters will address why the Project is necessary to comply with Minnesota's new Carbon-Free Electricity Standard.

I. The Project Provides Benefits to Society in a Manner Compatible with Protecting the Natural and Socioeconomic Environments.

In determining whether a proposed project provides benefits to society, the Commission must consider the following:

- (1) the relationship of the proposed facility, or a suitable modification thereof, to overall state energy needs;
- (2) the effects of the proposed facility, or a suitable modification thereof, upon the natural and socioeconomic environments compared to the effects of not building the facility;
- (3) the effects of the proposed facility, or a suitable modification thereof, in inducing future development; and
- (4) the socially beneficial uses of the output of the proposed facility, or a suitable modification thereof, including its uses to protect or enhance environmental quality¹⁰

⁹ Minn. R. 7849.0120.

¹⁰ Minn. R. 7849.0120(C).

The Project meets these criteria. The Project contributes to the State’s energy needs by enhancing reliability and increasing the deliverability of renewable energy from the Dakotas to Minnesota, which will also provide economic benefits to customers and other stakeholders. Additionally, the Project will enable new renewable resources to be built by adding transmission capacity to the region. More renewable resources will enhance environmental quality by reducing greenhouse gas emissions and the cost to society of those emissions. For these reasons, the Joint Commenters assert that the Project provides benefits to society, as required by Minn. R. 7849.0120(C).

A. The Project Contributes to State Energy Needs by Improving Regional Reliability

The Commission must consider the relationship between a proposed project and the overall state energy needs.¹¹ Here, the relationship is one of support. This Project supports state energy needs by improving the reliability of the transmission system that serves Minnesota. The transmission lines in Tranche 1, including this one, are described as “no-regrets” or “least-regrets” projects because they are foundational to solving long-standing concerns regarding the reliability and efficiency of the regional grid, even under the most conservative of MISO’s future forecasts.¹² While this Project was developed as part of a broader portfolio, it was also individually justified by MISO and the Applicants based on regional and local needs.¹³ MISO identified this project as

¹¹ Minn. R. 7849.0120(C)(1).

¹² MISO’s LRTP Tranche 1 “proposes a set of least-regrets transmission projects that will help to ensure a reliable, resilient and cost-effective transmission system as the resource mix continues to change and represents the largest and most complex transmission study effort in MISO’s history.” MISO, MTEP21 Report Addendum: Long Range Transmission Planning Tranche 1 Executive Summary 2 (2022).

¹³ Initial Application at 66.

a critical component of the Tranche 1 portfolio as it was the most effective option¹⁴ to maintain regional reliability in the eastern Dakotas and in western and central Minnesota.¹⁵ This corridor of the grid facilitates the transfer of wind generation resources out of the Dakotas and into Minnesota. However, it is heavily constrained with thermal overloads and voltage violations contributing to reliability concerns.¹⁶ The Project is designed to alleviate the stress on the current system by providing an additional transmission outlet from the Dakotas. This additional capacity will reduce thermal and voltage issues, improving regional reliability.¹⁷ The Project is also expected to reduce line losses by an average of 80.75MW, which in turn reduces the amount of energy generation required to serve Minnesota's electric load.¹⁸ Collectively, these benefits will greatly improve the State's ability to meet its increasing energy needs.

B. The Project Will Provide Socioeconomic Benefits by Reducing Exposure to Price Volatility

In making its determination, the Commission must compare the effects of the facility on the natural and socioeconomic environments with those of not building the facility.¹⁹ Here the Project will provide socioeconomic benefits by reducing exposure to volatility in fuel prices. While providing an additional outlet for generation from the Dakotas enhances reliability, it also creates socioeconomic benefits by facilitating access to low-cost renewable energy coming from the wind-rich Dakotas. Renewable energy sources do not incur the same fuel costs as fossil plants.

¹⁴ MISO analyzed several alternatives before deciding this Project was the most efficient. Many of the alternatives examined by MISO created new overloads on the existing system or new N-1 issues, while other alternatives only partially solved the reliability concerns MISO was seeking to resolve with this project. *See* MISO MTEP21 Report Addendum: Long Range Transmission Planning Tranche 1 Portfolio Report, 23-25 (2002) [hereinafter MTEP21 Portfolio Report].

¹⁵ Initial Application at 5.

¹⁶ *Id.* at 66.

¹⁷ *Id.*

¹⁸ *Id.* at 84-85.

¹⁹ Minn. R. 7849.0120(C)(2).

Therefore, the renewable electricity delivered to consumers reduces exposure to fuel cost volatility and will provide more stable rates over time. Additionally the electricity is not created by burning carbon-rich fuel, making the product carbon-free and much safer for the communities utilizing the electricity. By providing the ability to transmit existing and incremental renewable energy into Minnesota, the Project ensures access to the most beneficial electricity for Minnesota ratepayers.

In addition to benefiting Minnesota consumers, the Project provides significant economic benefits to other stakeholders. By relieving congestion on the transmission system, the Project is estimated to provide up to \$3.8 billion in savings across the MISO region within 40 years of its in-service date.²⁰ The carbon reductions achieved by this Project, which are discussed more thoroughly in Section I.D., also have an economic value. The carbon reductions expected in the first 20 years of this Project have an economic benefit ranging from \$77.4 million to \$438.8 million across the MISO footprint, depending on the cost of carbon and resource mix tested.²¹ Thus the Project has clear socioeconomic benefits for Minnesota customers and other stakeholders, as contemplated by Minnesota law.

C. The Project Will Enhance Future Development by Adding Transmission Capacity, Which Will Enable Construction of New Renewable Generation

The Commission must consider the effects of the proposed facility in inducing future developments.²² This Project will enable future developments in the region by providing the additional transmission capacity needed to deliver the energy generated by these developments.²³ Connecting new clean energy generators to the grid through additional transmission capacity will be critical for meeting the State's energy policy. As discussed more fully in Section II, Minnesota

²⁰ Initial Application at 113.

²¹ *Id.* at 82-84.

²² Minn. R. 7849.0120(C)(3).

²³ Initial Application at 5.

utilities will need to build a significant amount of clean energy generation to comply with Minnesota’s newly passed carbon-free electricity standard. These future developments will be needed in the next 16 years, with a great deal of that being built within the next *six* years.²⁴ This Project is a step in the right direction, providing much-needed additional transmission capacity and allowing for the interconnection of current and new clean energy resources to reach Minnesota customers. There are 198 interconnection requests for this Project, amounting to over 35,000 MW of energy.²⁵

The Project will not only provide critical transmission capacity expansion but is, indeed, a lynchpin project needed to enable future developments that will be critical in meeting State decarbonization policies.

D. The Project Protects and Enhances Environmental Quality by Increasing Access to Renewable Energy

Finally, the Commission must consider the proposed facility’s socially beneficial uses, including its uses to protect or enhance environmental quality.²⁶ As discussed previously, this Project will increase Minnesota’s access to renewable generation by allowing better utilization of existing resources to our west and enabling new clean energy projects to be constructed and interconnected to the grid. By increasing access to and utilization of renewables, the Project will lower harmful pollutants in Minnesota and the region, thereby enhancing environmental quality.

Air emissions associated with fossil fuel production and consumption include the greenhouse gas carbon dioxide (“CO₂”) as well as particulate matter, sulfur dioxide (“SO₂”),

²⁴ By way of reference, MISO predicts that the energy industry will change as much in the next five years as it has in the *past 35 years*. *Id.* at 55.

²⁵ *Id.* at 86.

²⁶ Minn. R. 7849.0120(C)(4).

nitrogen oxides (NO_x), mercury, and other hazardous air pollutants.²⁷ The adverse environmental and health impacts of these hazardous pollutants will be incrementally alleviated as Minnesota is able to move to additional sources of renewable energy, which will be directly facilitated by this Project. The Project will reduce emissions by 17.8 to 22.4 million metric tons over the first 20 years.²⁸ Using the most conservative figure, this would be akin to avoiding the burning of 19 *billion* pounds of coal.²⁹ These emissions reductions would occur during the time period when it is most critical to reduce emissions in order to stave off the worst impacts of climate change.³⁰ Over the course of 40 years, the Project would reduce emissions such that it would be akin to avoiding the burning of 40 billion pounds of coal.³¹ It would require planting 600 *million* trees and letting them grow for ten years to achieve comparable carbon reductions.³²

The Project also protects environmental quality by using existing transmission routes, infrastructure, and rights-of-way as much as possible. Much of this Project is proposed to be developed on existing infrastructure; both the western and eastern segments involve stringing new

²⁷ *Coal Explained, Coal and the Environment*, U.S. ENERGY INFO. ADMIN., <https://www.eia.gov/energyexplained/coal/coal-and-the-environment.php> (last visited Apr. 22, 2024).

²⁸ Initial Application at 52.

²⁹ This value was calculated using EPA's greenhouse gas equivalency calculator and using the input of 17.8 million metric tons of CO₂. See *Greenhouse Gas Equivalencies Calculator*, U.S. ENV'T PROT. AGENCY, <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator#results> (last visited Apr. 22, 2024).

³⁰ See *Urgent Climate Action Can Secure a Livable Future for All*, INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE (Mar. 20, 2023), <https://www.ipcc.ch/2023/03/20/press-release-ar6-synthesis-report/> (noting that feasible and effective solutions already exist to help reduce greenhouse gas emissions and that implementing these solutions is critical to preventing the worst outcomes of climate change).

³¹ This value was produced using EPA's greenhouse gas equivalency calculator and using the input of 37.1 million metric tons of CO₂. See *Greenhouse Gas Equivalencies Calculator*, U.S. ENV'T PROT. AGENCY, <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator#results> (last visited Apr. 22, 2024).

³² *Id.*

single-circuit 345kV lines on existing, double-circuit capable structures. The only planned new greenfield development will involve a one- to four-mile segment of new right-of-way to connect to the Big Oaks Substation.³³ By minimizing the use of new greenfield development, the project poses less risk to natural environments and potentially endangered species and places less demand on landowners as the right-of-way is already established.

Because the Project supports the State's energy needs, reduces cost volatility, enables future renewable energy developments to interconnect, and protects environmental quality, the Commission should find that it benefits society. This supports granting a certificate of need.

II. The Project is Necessary to Comply with Minnesota's New Carbon-Free Electricity Standard

In addition to those considerations required by law for granting a certificate of need,³⁴ the Joint Commenters believe the Commission should also consider how the project supports Minnesota's policy objectives, specifically Minnesota's new carbon-free standard for electricity.³⁵

In 2023, Minnesota enacted a new carbon-free standard requiring that by 2040, the electricity delivered to Minnesota customers be generated or procured from 100% carbon-free technologies.³⁶ To meet this state policy, Minnesota needs to increase the share of electricity generated from renewable resources statewide, which in 2022 was only 31%.³⁷ Furthermore, Minnesota's need for electricity will not only remain but likely increase³⁸ as we approach 2040.

³³ *In the Matter of the Application for a Certificate of Need for the Big Stone South – Alexandria – Big Oaks Transmission Project*, Minn. Pub. Util. Comm'n Docket No. E002, E017, ET2, ET10/CN-22-538, Summary of Certificate of Need Application 2 (Sept. 29, 2023).

³⁴ See Minn. Stat. § 216B.243; Minn. R. 7849.0120.

³⁵ Minn. Stat. § 216B.1691, subd. 2g.

³⁶ See Minn. Stat. § 216B.1691, subds. 2d, 2g; see also Minn. Stat. § 216B.1645, subd. 2.

³⁷ *Minnesota State Profile and Energy Estimates*, U.S. ENERGY INFO. ADMIN., <https://eia.gov/state/?sid=MN#tabs-4> (last visited Apr. 22, 2024).

³⁸ See MTEP21 Portfolio Report at 11 (explaining that the transmission towards electrification will impact electricity demand).

The needed changes in Minnesota’s electricity generation portfolio will require additional transmission in the region to ensure that clean electricity can reach load centers.³⁹ As coal and fossil fuel generation sources are retired, this Project will help deliver wind and solar energy to replace that lost generation⁴⁰ and cover the expected growth in demand.⁴¹

The Joint Commenters believe this Project and other planned transmission projects are central to meeting the State’s 2040 carbon-free electricity standard. Although not part of the statutorily required considerations, the Commission should also reflect on the State’s carbon-free electricity standard and the necessity of additional transmission in meeting that standard as it reviews the certificate of need for the Project.

CONCLUSION

Minnesota Administrative Rule 7849.0120 requires the Commission to issue a certificate of need upon making four determinations. The Joint Commenters believe the Applicants have provided sufficient evidence for making all four determinations and support issuing a certificate of need for the Project. However, we have highlighted the criteria for making determination number three: that the Project benefits society. Specifically, the Joint Commenters have shown that the Project supports the State in meeting its energy needs by enabling clean renewable energy from the Dakotas to be delivered to Minnesota customers. This will also reduce the volatility of energy prices for Minnesota customers and provide other socioeconomic benefits. The Project will enable future renewable energy developments to interconnect to the grid, which will further help meet energy needs and lower generation costs. Because the Project will provide greater access to current and future sources of clean, green energy, it also enhances and protects environmental

³⁹ See Initial Application at 39.

⁴⁰ *Id.* at 4.

⁴¹ *Id.* at 64.

quality. Finally, the Joint Commenters urge the Commission to consider how transmission projects like this one will be critical in meeting the statutory mandate to have 100% clean energy delivered to Minnesota customers by 2040.

For these reasons, the Joint Commenters support the Applicants' request for a certificate of need.

Respectfully submitted,

/s/ Abigail Hencheck
Abigail Hencheck
Staff Attorney
Minnesota Center for Environmental Advocacy
1919 University Ave W, Suite 515
Saint Paul, MN, 55104

/s/ Rachel Wiedewitsch
Rachel Wiedewitsch
Senior Policy Associate, Clean Electricity
Fresh Energy
408 St. Peter St #350
Saint Paul, MN, 55102

Audubon Upper Mississippi River

Clean Grid Alliance

Center for Rural Affairs

Sierra Club

Citizens's Utility Board of Minnesota

Union of Concerned Scientists