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BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF NORTH DAKOTA

NORTHERN STATES POWER COMPANY
ADVANCE DETERMINATION OF PRUDENCE –
ACQUISITION OF 120 MW NORTHERN WIND FACILITY

CASE NO. PU-21-_____

APPLICATION FOR ADVANCE DETERMINATION OF PRUDENCE

I. INTRODUCTION

Northern States Power Company, doing business as Xcel Energy (Xcel Energy or the Company), submits to the North Dakota Public Service Commission (Commission) this Application for an Advance Determination of Prudence (ADP) for acquisition of the 120 megawatt (MW) Northern Wind Facility (Northern Wind or Project), located in Murray County, Minnesota. The Company expects the acquisition of the repowered and expanded Northern Wind facility to generate system-wide savings to customers of $54 million on a present value of revenue requirements (PVRR) basis over the 25-year life of the Project.

The Northern Wind repowering proposal was submitted to Xcel Energy by ALLETE Clean Energy, Inc. (ALLETE or Seller) in response to the Company's July 27, 2020 solicitation to explore opportunities to repower existing wind projects in our resource portfolio. This solicitation and several repowering projects that were previously selected are described in the Company's ADP Application in Case No. PU-20-425. While ALLETE's bid was not initially selected, the Company and ALLETE continued discussions to explore ways to increase and maximize economic benefits for customers. After extensive collaboration and negotiations, the Company recently reached an agreement with ALLETE to replace, expand, and acquire the Northern Wind facility. Thus, the proposed Northern Wind acquisition is a continuation of the repowering projects described in Case No. PU-20-425, and our economic analysis of the Northern Wind acquisition assumes those other repowered projects will go into service.

Similar to the repowering projects described in Case No. PU-20-425, the Northern Wind project will help support economic relief and recovery in the wake of the COVID-19 pandemic while generating long-term savings for our customers.

In support of the Company's Application, Xcel Energy provides the following Direct Testimony:

- Policy Testimony – Mr. Christopher J. Shaw
- Resource Planning Testimony – Ms. Farah L. Mandich

The remainder of this Application addresses the following:

- Description of Applicant;
- Communication and Service;
- Standard of Review;
- Authority for Relief Requested;
- Description and Purpose of Filing;
- Terms of the Proposed Acquisition;
- Economic Analysis;
- Prudence of the Northern Wind Project; and
- Conclusion.

II. COMPLIANCE MATTERS

A. Description of Applicant

Xcel Energy is a Minnesota corporation duly authorized to conduct business in the State of North Dakota as a foreign corporation. The Company conducts business in the State of North Dakota as a public utility subject to the jurisdiction and regulation of the Commission pursuant to Title 49 of the North Dakota Century Code (N.D.C.C.). The name and address of Xcel Energy is:

Northern States Power Company, a Minnesota corporation
414 Nicollet Mall
Minneapolis, Minnesota 55401

Xcel Energy also operates in North Dakota from the following address:

Northern States Power Company
2302 Great Northern Drive

Fargo, North Dakota 58102

The Company's Certificate of Incorporation with amendments and Certificate of Authority were filed with the Commission on September 30, 2009, and October 12, 2009, respectively, in Case No. PU-09-664. Current Certificates of Good Standing issued by the North Dakota and Minnesota Secretaries of State were filed in the same case on January 8, 2021, and are incorporated herein by reference.

Xcel Energy has service territory in five upper Midwest states including North Dakota. The Company presently serves approximately 94,000 retail electric customers in and around Fargo, Grand Forks, and Minot, North Dakota, and owns approximately 1,450 conductor miles of transmission and 3,810 conductor miles of electric distribution lines in North Dakota.

B. Communication and Service

The Company respectfully requests that the following persons be placed on the Commission's official service list for all official communications in this case:

David H. Sederquist	Regulatory Records
Senior Consultant, Regulation and Finance	Records Specialist
Xcel Energy	Xcel Energy
2302 Great Northern Drive	414 Nicollet Mall
Fargo, North Dakota 58102	Minneapolis, Minnesota 55401
dave.sederquist@xcelenergy.com	regulatory.records@xcelenergy.com

C. Standard of Review

North Dakota Century Code section 49-05-16(1)(d) authorizes the Commission to issue an ADP if it "determines that the resource addition is prudent." This standard is similar to the "honestly and prudently invested" standard that the Commission uses for ratemaking.[1] The general prudence standard calls for determining whether the utility action was reasonable at the time it was taken under all relevant circumstances.[2] Under Section 49-05-16(1), the Commission may issue an order approving the prudence of a proposed project if four conditions are met:

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[1] *See* N.D.C.C. § 49-06-02.

[2] *See* Charles F. Philips, Jr., *The Regulation of Public Utilities – Theory and Practice* at 292 (Public Utility Reports 1988); *see also* David J. Muchow & William A. Mogel, *Energy Law and Transactions* at § 4.02[3][b] (2009).

a. The public utility files with its application a projection of costs to the date of the anticipated commercial operation of the resource addition;

b. The public utility files with its application a fee in the amount of one hundred seventy-five thousand dollars;

c. The commission provides notice and holds a hearing, if appropriate, in accordance with section 49-02-02; and

d. The commission determines that the resource addition is prudent. For facilities located or to be located in this state the commission, in determining whether the resource addition is prudent, shall consider the benefits of having the resource addition located in this state.

D. Authority for Relief Requested

North Dakota Century Code section 49-05-16 allows a public utility to seek an ADP from the Commission at the utility's discretion. Pursuant to the Settlement Agreement in Case No. PU-07-776, the Company is obligated to file an application for an ADP for its acquisition of generating resources above 50 MW.[3] In Case No. PU-12-59, Xcel Energy committed to filing its ADP applications within fourteen days of seeking similar approvals from the Minnesota Public Utilities Commission (MPUC).[4]

With this Application, the Company has met its filing obligations. This Application complies with the requirements of N.D.C.C. § 49-05-16 and the Settlement Agreement in Case No. PU-07-776. Additionally, the Company is submitting this Application within fourteen days of the February 16, 2021 filing of a similar application with the MPUC.

III. DESCRIPTION AND PURPOSE OF FILING

A. Project Need and Selection Process

The Northern Wind Project was identified in the same July 27, 2020 solicitation for wind repowering projects (2020 Wind Repowering Solicitation) described in the Company's ADP application in Case No. PU-20-425. The Company issued the 2020

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[3] *N. States Power Co. Elec. Rate Increase Application*, Case No. PU-07-776, ORDER ADOPTING SETTLEMENT AGREEMENT at 6 of attached Settlement Agreement (Dec. 31, 2008).

[4] *N. States Power Co. Advance Prudence – Geronimo Wind Application*, Case No. PU-12-59, LETTER OF COMMITMENT (Nov. 5, 2012).

Wind Repowering Solicitation to explore projects that might provide customer benefits and economic stimulus in light of recessionary conditions resulting from the COVID-19 pandemic. The 2020 Wind Repowering Solicitation did not identify a specific capacity target for repowering; the Company was open to pursuing any project that, as part of the full portfolio of projects, would provide economic benefit to customers.

For the 2020 Wind Repowering Solicitation, the Company used a process similar to that used for the wind portfolio the Commission approved in Case No. PU-17-120, in which both outside developers and Company self-build options were considered. The 2020 Wind Repowering Solicitation set out a multi-phase analysis to determine the final portfolio of proposed projects. The Company ultimately received 11 bids in response to the 2020 Solicitation, covering 9 distinct projects, totaling approximately 850 MW. Some bidders provided multiple options for the same project, with varying parameters such as commercial operation date (COD) and expected federal production tax credit (PTC) qualification. Our first phase of review indicated that 4 of the bids we received were initially incomplete. However, all bidders were able to remedy the deficiencies identified in this step, and all bids moved on to more substantive evaluation.

We then thoroughly evaluated each bid with respect to the RFP's requirements. We examined a variety of factors, including a) bidder creditworthiness and development experience, b) whether a bid proposed to repower a facility that currently delivers energy to our system, c) whether the proposed project meets required interconnection standards, and, perhaps most essentially, d) whether the proposed project will deliver customer savings on an individual basis. The Company's initial evaluation and shortlisting process is described in further detail in our ADP application in Case No. PU-20-425.

The Company ultimately decided to move forward with 7 projects that demonstrated customer benefits, including the 4 projects totaling 651 MW for which the Company requested an ADP in Case No. PU-20-425, and 3 additional projects totaling 67 MW for which no ADP was requested because the projects are below the 50 MW threshold for ADP applications agreed to in Case No. PU-07-776.[5]

The Northern Wind proposal from ALLETE was one of the 2 remaining projects in the 2020 Wind Repowering Solicitation that were not selected and thus were not included in the Company's prior ADP application.[6] While ALLETE's bid was not

[5] These projects will be reviewed by the NDPSC in a future base rate application.
[6] The Company also pursued further discussions regarding the final bid project that was received in our 2020 Wind

initially selected, the Company and ALLETE continued discussions to increase customer benefits of the proposed Project. After extensive negotiations, the Company recently reached an agreement with ALLETE to buy out the current power purchase agreements (PPAs) and replace, expand and acquire the repowered Northern Wind Facility.

B. Northern Wind Project Description

The proposed Northern Wind project is a complete replacement and expansion of the existing Chanarambie and Viking wind projects located in Murray County, Minnesota. The Company is currently the offtaker of the 100 MW total output of these two projects pursuant to PPAs.[7] The proposed repowering of the existing 100 MW at these two sites will increase power production and provide customer savings, while also creating substantial construction jobs in the near-term.

In addition to repowering the existing Chanarambie and Viking projects, ALLETE and the Company have identified a 20 MW greenfield expansion opportunity with Rock Aetna Power Partners, LLC (Rock Aetna) immediately adjacent to the existing facility. This expansion would increase the total nameplate of the proposed Northern Wind acquisition to 120 MW. However, there are two additional considerations for development of the Rock Aetna site. First, the executed Generator Interconnection Agreement for the Rock Aetna site requires approval from the Federal Energy Regulatory Commission (FERC) to change the commercial operation date (COD) in the Generator Interconnection Agreement from December 1, 2021 to December 1, 2022, due to delays in development caused by the COVID-19 pandemic. Rock Aetna filed a COD waiver request with FERC on February 4, 2021 and requested that FERC "act expeditiously in approving this Waiver Request by no later than February 28, 2021."[8] We do not expect this request to be controversial. As of the date of this Application, FERC has not acted on Rock Aetna's COD waiver request.

Second, the site expansion may impact North American Aerospace Defense Command (NORAD) radar arrays through saturation, which will be addressed as part of the site permitting process in Minnesota. The radar saturation issue must ultimately be resolved

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Repowering Solicitation, but we were unable to identify conclusive economic benefits for customers and ultimately decided not to pursue that project at this time.

[7] The Company has been recovering the costs of these PPAs in the Fuel Cost Rider (FCR) since they were both placed into service in 2003. There are currently 2 years remaining on the PPA terms.

[8] Request of Rock Aetna Power Partners, LLC for Prospective Tariff Waiver, Expedited Action, and Shortened Comment Period, FERC Docket No. ER21-1066-000 (Feb. 4, 2021).

through Determinations of No Hazard (DNHs) issued by the Federal Aviation Administration (FAA). As part of that process, the FAA will work with NORAD to determine if it has any concerns with the proximity of the Northern Wind facility to the Tyler Radar facility. ALLETE is responsible for obtaining the DNHs (and undertakes all of the risk of doing so), and it is a condition precedent in the executed Purchase and Sale Agreement (PSA) for the Northern Wind Project that ALLETE obtain a DNH for each proposed turbine site prior to moving forward to closing.

As a result of the continuing work necessary to effectuate the Rock Aetna greenfield expansion, the PSA is structured to allow the 100 MW repowering of the Chanarambie and Viking wind projects to move forward even if ALLETE is unable to achieve site permitting for the Rock Aetna portion of the facility. If ALLETE is unable to obtain FERC approval of the COD waiver request or the necessary DNHs from the FAA, the Company will move forward with the 100 MW repowering and will not be required to pay for any costs associated with the Rock Aetna portion of the project.

Figures 1 and 2 depict the location of both the existing Northern Wind facility (outlined in red) and proposed Rock Aetna expansion area (outlined in yellow).

Figure 1: Northern Wind Repowering Project Location

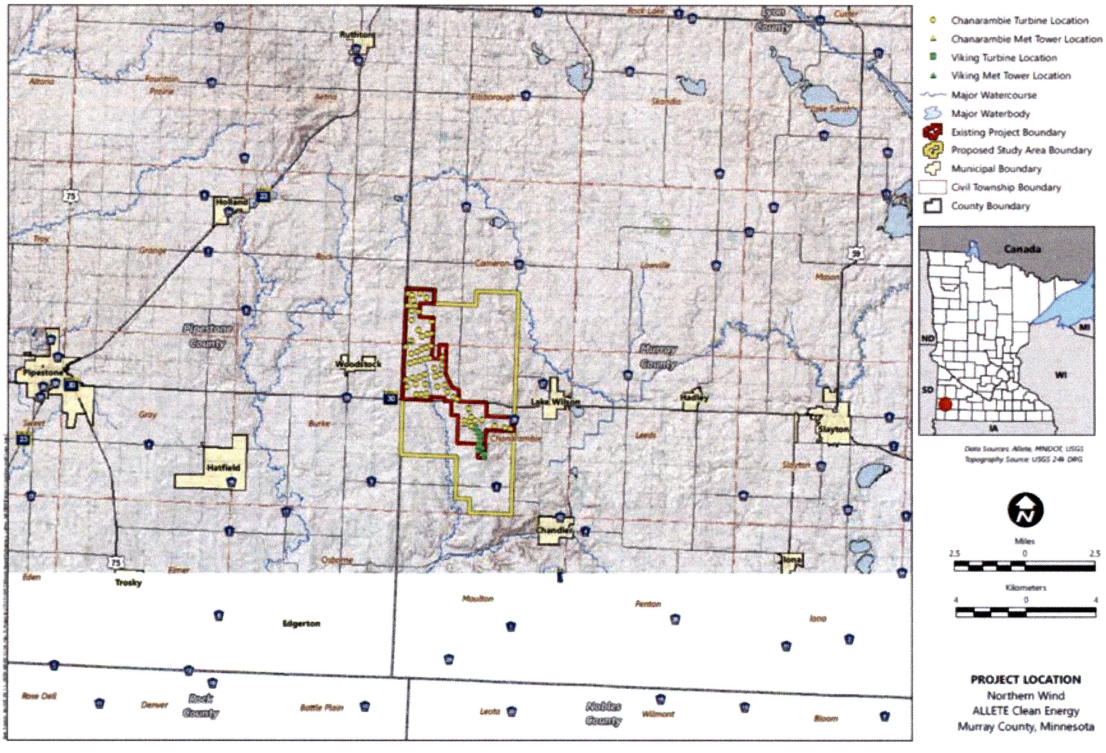
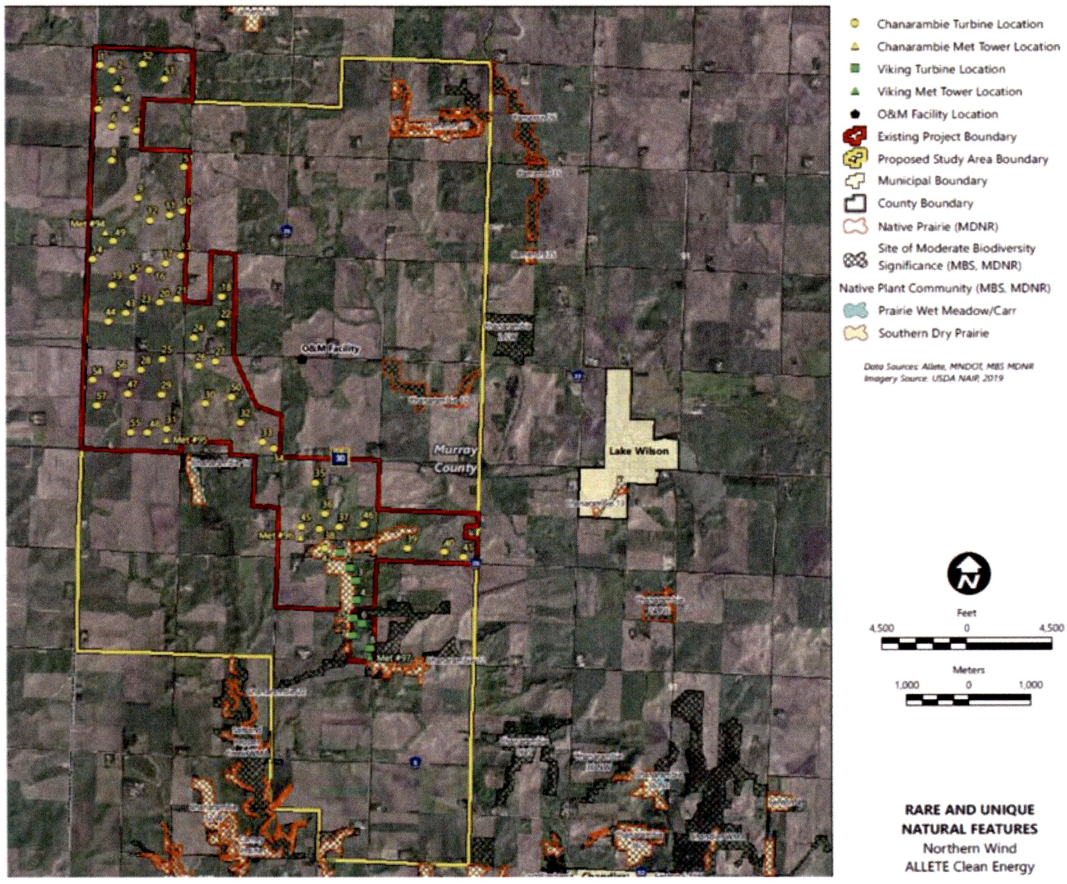


Figure 2: Northern Wind Repowering Project Location Detail



The Northern Wind project will support construction employment in the area and extended local land lease and tax benefits. We estimate that the project will create approximately 200 temporary construction jobs over the duration of the repowering project. This is similar to the impact of the Border Winds project located in North Dakota that is part of the 651 MW of the Wind Repowering Portfolio submitted in Case No. PU-20-425.

IV. TERMS OF THE PROPOSED ACQUISITION

On February 4, 2021, the Company executed a PSA for the Northern Wind facility with ACE Mid-West Holdings, LLC, (ultimately owned by ALLETE Clean Energy, Inc.), which as of the date of closing will own 100 percent of membership interests of a new company that will own all of the Northern Wind facility. The key terms of the PSA are set forth below.

1. Purchase Price

The Company will buy out the existing PPA and purchase the entire repowered and expanded Northern Wind facility for $210 million. The agreement includes **[TRADE SECRET BEGINS TRADE SECRET ENDS]** for the 100 MW of repowering and **[TRADE SECRET BEGINS TRADE SECRET ENDS]** for the additional 20 MW. Additionally, the project is expected to qualify for **[TRADE SECRET BEGINS TRADE SECRET ENDS]** PTC. At this purchase price and PTC level, the estimated levelized cost of energy (LCOE) for the Northern Wind project is just under **[TRADE SECRET BEGINS TRADE SECRET ENDS]**.

2. Commercial Operation Date

The current target COD is December 1, 2022, pending FERC approval. If approved, ALLETE will deliver a fully repowered project on the COD.

3. Security

As part of the agreement, ALLETE will provide a guaranty and a **[TRADE SECRET BEGINS TRADE SECRET ENDS]** Letter of Credit (LOC) to cover initial **[TRADE SECRET BEGINS TRADE SECRET ENDS]** in progress payments. Upon reaching **[TRADE SECRET BEGINS TRADE SECRET ENDS]** in progress payments, ALLETE will either: increase the amount of the LOC; provide Xcel Energy with a secured interest in the project company; or relieve Xcel Energy from the obligation of making additional progress payments.

V. ECONOMIC ANALYSIS

The Company used two methods to evaluate the economic costs and benefits of the proposed 120 MW Northern Wind project. First, we evaluated the Project in a pro forma spreadsheet analysis, to estimate its benefits relative to an alternative of maintaining the current PPAs and replacing the energy at the end of their term. The second approach was to evaluate the Project in the context of our full system, using the EnCompass resource planning model. Each analysis shows that the Project is expected to result in customer savings.

A. Pro Forma Analysis

To evaluate the Project's expected net benefit to customers, we initially evaluated it in a "pro forma" spreadsheet analysis. The pro forma compares the expected costs of the Project to a baseline where the PPAs continue to the end of their terms and incremental generic wind energy is added thereafter to match the output of the Project. Our pro forma analysis showed that the Project would be expected to result in $30.2 million of customer savings over its lifetime, as compared to generic wind replacement. Because our current resource planning process contemplates significant additional wind being placed on the NSP System into the future, we believe assessing the Project relative to replacement wind generation is an appropriate comparison.[9]

B. EnCompass Analysis

In addition to a pro forma analysis, the Company used the EnCompass resource planning model to evaluate the impact of the proposed Northern Wind acquisition on customers. Encompass is a capacity expansion tool that allows the Company to optimize future resource expansion plans based on a set of assumptions. Like our previously-used resource planning model, Strategist, EnCompass simulates the operation of the Company's system so we can evaluate the total cost of energy over the life of the project on a present value basis. However, one of the primary improvements that EnCompass offers over Strategist is that Encompass evaluates resource needs and cost on a chronological hourly basis, which better accounts for hourly variations on our system. The Company has largely shifted to using the EnCompass tool rather than Strategist to perform capacity-expansion modeling, because as we add more variable resources to our system, it becomes increasingly important to ensure we appropriately consider resource needs and costs on an hourly basis.

We evaluated the economic impact of the 120 MW Northern Wind acquisition using the same modelling assumptions as we used in Case No. PU-20-425. Here, however, the Company has updated its Base Case to include the four wind repowering projects described in the Company's pending ADP application in Case No. PU-20-425, as well as one small repowering project for which the Company did not seek an ADP.[10] This

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[9] We also performed a pro forma analysis of the Project using a baseline in which the existing PPAs are replaced with market replacement energy. The results of that pro forma analysis are presented in the testimony of Company witness Ms. Farah Mandich.

[10] As discussed above, the Company initially selected a total of seven repowering projects (four self-builds and three PPA projects), but negotiations ceased for two of the under 50 MW PPA projects in December 2020. The Company continues to plan to move forward with the remaining five projects and therefore has included them in the Base Case for the economic analysis of the Northern Wind Project's analysis.

Base Case is then compared with a Change Case in which the existing Chanarambie and Viking projects' PPAs are removed from our portfolio and the Northern Wind Project is added. The Company's full Upper Midwest system resource portfolio is then re-optimized in order to evaluate whether moving forward with this repowering, expansion, and acquisition will provide benefits or result in additional costs on a system-wide basis. This allows us to examine whether the proposal will result in customer savings in the context of our full system. The Company's complete modeling assumptions are provided as Schedule 2 to the Direct Testimony of Company witness Ms. Farah Mandich.

The results of our EnCompass analysis show that the acquisition of the repowered and expanded Northern Wind project is expected to result in net benefits of between $39 million and $62 million depending on future market conditions – with our Base Case indicating $54 million in savings – all on a PVRR basis over the 2020-2045 analysis period. This PVRR analysis does not include CO_2 costs, other externality values, or future potential regulatory costs of carbon emissions. Our range of potential savings is based on our analysis of the impacts of Northern Wind under two sensitivities, testing higher or lower than expected fuel and market energy prices. The results of these analyses are included in Table 1 below. Our EnCompass analysis indicates that the Project is expected to result in benefits to customers under all fuel sensitivities examined.

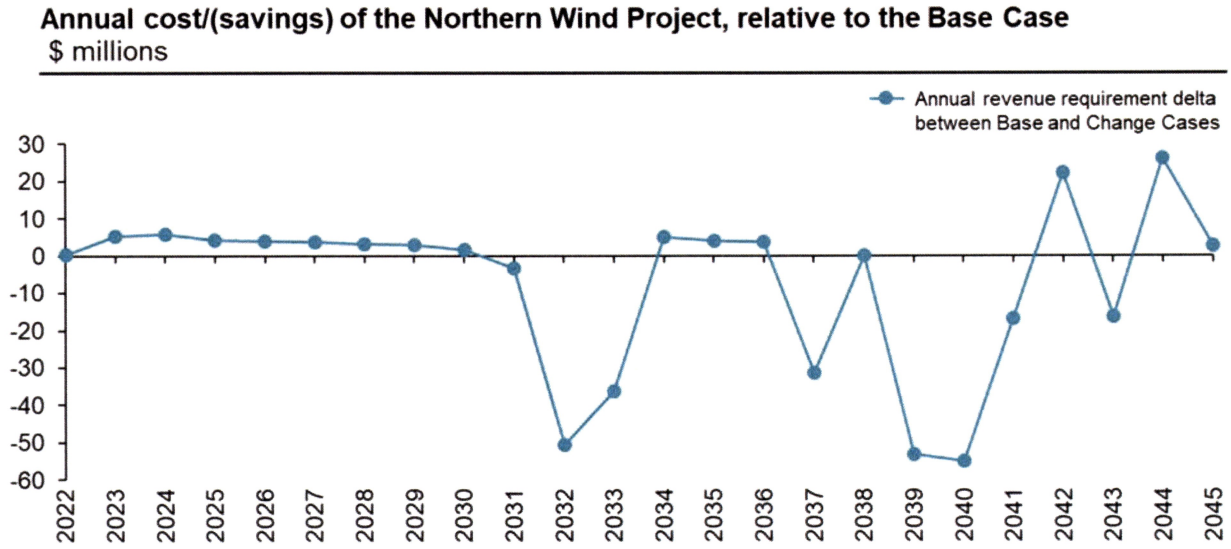
Table 1: Savings Associated with the Addition of the Northern Wind Project, Relative to the Base Case

Cost sensitivity	**Cost/(Savings) $2020 millions**
Base PVRR	($54)
Low Gas, Coal and Market Prices PVRR	($62)
High Gas, Coal, and Market Prices PVRR	($39)

To understand how customer savings accrue over time, Figures 3 and 4 below portray the expected annual costs or savings of incorporating the Northern Wind project into our system, relative to the Base Case. Figure 3 shows these values annually (undiscounted) and Figure 4 shows the cumulative total of net present value savings, by

year. While these results show some modest near-term costs, we expect that the Project will save customers money over the longer term. These modeled savings are largely driven by the avoidance of higher cost energy from other system resources, the deferral of incremental resource additions in the future, and benefits associated with PTCs.

Figure 3: Annual Costs/(Savings) of Northern Wind vs. the Base Case



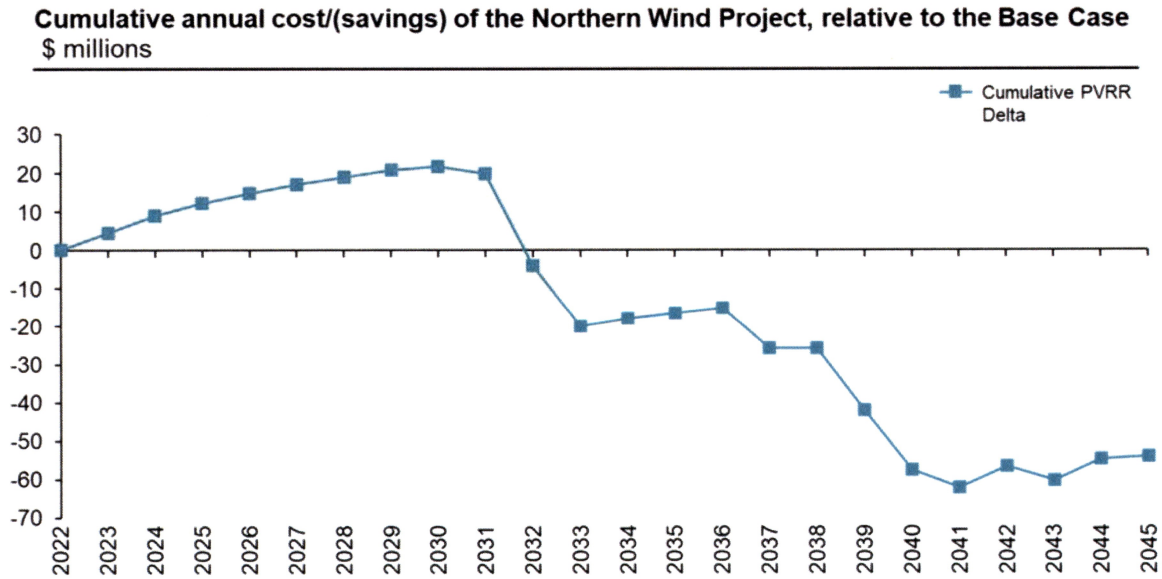
We recognize that the modeling results depicted in Figure 3 show fairly large variation across years, especially in the latter half of the analysis period. It should be noted that Figure 3 shows the costs of the Change Case relative to the Base case; it does not show the annual revenue requirement of the Northern Wind project nor does it indicate that the costs and savings relative to the Base Case shown in the Figure will be what is reflected in rates. The fluctuation in the annual revenue requirement delta shown in Figure 3 is caused in part by Project-specific impacts – such as the impact of deferred tax assets in the early 2030s – and is also the result of the Change Case shifting – either forward or back – the year in which the capacity expansion model selects additional future generic resources to serve our customer load.[11] For example, Figure 3 above shows that the cost of the Change Case is expected to be approximately $50 million lower in 2032 than the Base Case. The large annualized savings for 2032 are the result

[11] This effect results in large year over year cost fluctuations, in part because our generic unit sizes for renewables are fairly large. One wind unit represents 750 MW and one solar unit is 500 MW. We use large generic units in our modeling currently to maintain continuity with legacy modeling in our Integrated Resource Plan. However, we plan to move toward smaller generic units in the future, to better reflect the modularity of renewables and battery energy storage systems.

of two key factors. First, the estimated revenue requirement for the Northern Wind Project drops substantially in the 2031-2032 timeframe due to the impacts of the PTCs generated by the Project on the Company's tax position. Second, the overall expansion plan in the Change Case indicates that the Project delays generic resource additions in 2032 by one wind unit (equating to 750 MW of wind). The drop in cost reflects both the avoided capital cost of that wind unit in 2032 and other associated costs (such as assumed integration costs), outweighing any other factors that put upward pressure on costs in that year. This wind unit does not disappear from the expansion plan entirely; however, it is deferred for two years to 2034.

Similarly, the modeling results show deferred or pulled-forward generic additions in the 2037-2040 timeframe when Northern Wind is added to our system, resulting in year over year cost fluctuations. In 2037, the model defers a combustion turbine (CT) addition. In 2038, the cost of the Change Case increases slightly due to a battery storage resource being pulled forward in the model. In the 2039-2040 timeframe, the costs of additional CTs are partially offset by deferred wind additions. Beyond 2040, similar fluctuations in the sets of resources added or deferred in a given year result in cost spikes up or down through the end of the analysis period in 2045.

Figure 4: Cumulative Cost/(Savings) of Northern Wind vs the Base Case



Notwithstanding the fluctuations in the annual revenue requirement of the Change Case relative to the Base Case, Figure 4 shows that the overall effect of the addition of the Northern Wind Project is a net benefit to customers. The modest incremental costs accrued in the near term are expected to be offset fully by the early 2030s and subsequently, none of the year over year spikes in cost are large enough in magnitude to reverse this cumulative savings picture. This finding is consistent with the pro forma analysis discussed earlier. Overall, we believe our economic analyses provide sufficient evidence that the accumulated system savings resulting from the acquisition of this Project will more than offset any individual year cost spikes and will generate net benefits for customers over the life of the repowered Project.

VI. PRUDENCE OF THE NORTHERN WIND PROJECT

The Company's proposed acquisition of the Northern Wind project is prudent. The acquisition will keep the 100 MW in the existing Chanarambie and Viking PPAs on the Company's system and the economic analysis summarized above and detailed in the Company's testimony shows that acquiring the repowered and expanded Project will provide savings for our customers. As part of the broader wind repowering portfolio that is the subject of the Company's ADP application in Case No. PU-20-425, the Northern Wind project is expected to generate savings to customers of approximately $54 million on a system-wide PVRR basis.

The financial benefits of the Northern Wind acquisition will be reflected in a lower cost of energy and will serve as a hedge against future increases in fuel costs and potential governmental regulation. In this way, the Company is cost-effectively acquiring the resources needed to meet the regulatory requirements of the jurisdictions in which we provide service. In addition to generating financial benefits for customers, the Northern Wind repowering project is part of a broader effort to spur and sustain jobs in response to the recessionary conditions created by the COVID-19 pandemic.

VII. CONCLUSION

For all the reasons set forth above, Xcel Energy respectfully requests the Commission grant an ADP for the Company's proposed acquisition of the repowered and expanded 120 MW Northern Wind project.

Dated: March 2, 2021

Northern States Power Company

Respectfully submitted,

/s/ Christopher J. Shaw
CHRISTOPHER J. SHAW
MANAGER, REGULATORY POLICY