Direct Testimony and Schedule
Christopher J. Shaw

STATE OF NORTH DAKOTA
BEFORE THE
NORTH DAKOTA PUBLIC SERVICE COMMISSION

In the Matter of the Application of Northern States Power Company for an Advance Determination of Prudence for the Lyon County to Sherburne County 345 kV Transmission Line

Case No. PU-23-____

Exhibit___(CJS-1)

Policy

March 23, 2023

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Schedule

I. INTRODUCTION AND QUALIFICATIONS

Q. PLEASE STATE YOUR NAME AND TITLE.

A. My name is Christopher J. Shaw. I am a Regulatory Policy Manager for Northern States Power Company – Minnesota (NSP or Xcel Energy or the Company).

Q. PLEASE DESCRIBE YOUR QUALIFICATIONS AND EXPERIENCE.

A. I have worked for Xcel Energy since November 2015, initially as a Principal Rate Analyst. I began my current position in August 2018. Prior to joining Xcel Energy, I worked for the Minnesota Department of Commerce and the Minnesota Attorney General's Office. My statement of qualifications is provided as Exhibit___(CJS-1), Schedule 1.

Q. FOR WHOM ARE YOU TESTIFYING IN THIS PROCEEDING?

A. I am testifying on behalf of NSP.

Q. WHAT ARE YOUR CURRENT RESPONSIBILITIES?

A. In my current role, I work with the Resource Planning team on the development of resource plans and acquisitions for the five-state integrated Upper Midwest Northern States Power Company system (NSP System), which provides electric service to customers in North Dakota, South Dakota, Minnesota, Wisconsin, and Michigan. This includes assisting the Company in making reasonable and prudent acquisition decisions for electric generation resources.

Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY IN THIS PROCEEDING?

A. The purpose of my Direct Testimony is to provide support for the Company's request for an Advance Determination of Prudence (ADP) for the Lyon County to Sherburne County 345 kilovolt (kV) Transmission Line (the Project). The Project is a proposed 160- to 180-mile, double circuit transmission line connecting the existing Sherburne County Substation (Sherco Substation) in Becker, Minnesota, and a new substation in Lyon County, Minnesota, and other associated facilities, including intermediate and voltage support substations (Project). In my testimony, I detail the Project and related policy issues, and address the prudence of the Project in support of the Company's ADP Application (Application).

Q. WHY IS THE COMPANY PROPOSING THE PROJECT?

A. In the most recent 2020-2034 Upper Midwest Integrated Resource Plan (IRP)[1] the Company identified a need for the addition of nearly 9,000 MW of cost-effective generation during the planning period, including nearly 6,000 MW of renewable generation that will need to be connected to the grid by 2034. Further, the analysis in the IRP showed that it was cost-effective to reutilize the interconnection for the three retiring generators at the existing Sherburne County Generation Station (Sherco) located in Becker, Minnesota. Together, the three Sherco Units represent nearly 2,000 MW of existing interconnection rights at the Sherco Point of Interconnection (POI) that are owned by the Company. Given these realities, the Company proposed the Project as part of its IRP as a means for the Company to retain those valuable interconnection

[1] Filed as NDPSC Case No. PU-19-220.

rights and use them to cost-effectively interconnect a large portion of the generation that is needed to meet our capacity needs over the next 10-15 years.

Q. IS THE COMPANY'S PROPOSED INVESTMENT IN THE PROJECT PRUDENT?

A. Yes. Given the high system upgrade costs associated with the Midcontinent Independent System Operator (MISO) interconnection queue, the Company estimates that the Project will save customers $531 million on a net present value (NPV) basis ($2023), when compared with interconnecting the same amount of generation using the MISO generator interconnection procedures by avoiding costly interconnection upgrades. It will also allow the Company to reliably deliver energy to the system, bypassing material congestion issues for interconnected generation currently being experienced on the transmission system. Overall, the Project will allow the Company to predictably and cost-effectively bring new renewable generation from renewable-rich areas to the center of the NSP system at an existing point of interconnection, at a lower cost to customers than bringing the same amount of generation online through the regular MISO queue process, by utilizing the Company's valuable interconnection rights in Becker, Minnesota.

Q. HOW IS YOUR TESTIMONY STRUCTURED?

A. My testimony covers the following topics:

- Regulatory Matters;
- Project Overview;
- Economic Analysis; and
- Presentation of Witnesses.

II. REGULATORY MATTERS

Q. PLEASE DESCRIBE THE COMPANY'S REQUIREMENTS WITH RESPECT TO THIS ADP.

A. North Dakota Century Code (N.D.C.C.) section 49-05-16 allows a public utility to seek an ADP from the Commission for a "resource addition" at the utility's discretion. A resource addition includes, among other things, a "transmission facility." 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 a transmission facility that is at least 50 miles long.[2] In Case No. PU-12-59, Xcel Energy committed to filing its ADP applications within 14 days of seeking similar approvals in Minnesota.[3]

Q. IS THE COMPANY MEETING NORTH DAKOTA FILING REQUIREMENTS WITH THIS APPLICATION AND SUPPORTING TESTIMONY?

A. Yes. The Project is a transmission facility that is more than 50 miles long, thus 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, in accordance with our commitment in Case No. PU-12-59, the Company is submitting the Application within 14 days of filing a petition seeking approval for the acquisitions in Minnesota, which occurred on March 9, 2023. Finally, the Application and supporting testimony demonstrate the prudence of the Company's acquisition of the facilities.

[2] *N. States Power Co. Elec. Rate Increase Application*, Case No. PU-07-776, ORDER ADOPTING SETTLEMENT AGREEMENT at 6 of Settlement Agreement (Dec. 31, 2008).
[3] *N. States Power Co. Advance Prudence – Geronimo Wind Application*, Case No. PU-12-59, LETTER OF COMMITMENT (Nov. 5, 2012).

III. PROJECT OVERVIEW

Q. PLEASE PROVIDE A HIGH-LEVEL OVERVIEW OF THE PROJECT.

A. The Project consists of an approximately 160- to 180-mile, 345 kV transmission line connecting the existing Sherco Substation in Becker, Minnesota to a planned new substation in Lyon County, Minnesota, as well as other associated facilities, including intermediate and voltage support substations. The Project will consist of two lines, which will be located on the same set of structures, or "double-circuited," to minimize impacts to the human and natural environments.

Q. WHY IS THE COMPANY PROPOSING TO CONSTRUCT THE PROJECT?

A. The Project is intended to predictably and cost-effectively support the interconnection and delivery of at least 2,000 MW of new generation to the Sherco POI. As the existing Sherco Units retire over the next several years, the Project will optimize re-use of the Company's valuable interconnection rights at the site. Thus, the Project will help meet the twin goals of (1) interconnecting a large amount of new generation to meet the need identified in the IRP, and (2) efficiently reusing our valuable interconnection rights at Sherco under the MISO generator replacement rules.

Q. IN ADDITION TO THIS ADP, WHAT OTHER SUBMISSIONS HAS NSP FILED TO OBTAIN APPROVAL FOR THE PROJECT?

A. NSP submitted a Certificate of Need (CON) Application to the Minnesota Public Utilities Commission (MPUC) on March 9, 2023. In addition, the Company plans to apply to the MPUC for a Route Permit for the Project later in 2023.

A. Project Identification and Need

Q. WHEN DID THE COMPANY INITIALLY PROPOSE THE PROJECT?

A. An initial version of the Project was first proposed in 2021 as part of the Alternate Plan in the Company's most recent resource planning cycle. The MPUC approved the Company's IRP, which included a generation tie-line to the Sherco Substation, in a written Order dated April 15, 2022 (Docket No. E002/RP-19-368).

Q. WHY WAS THE PROJECT PROPOSED AS PART OF THE IRP?

A. As I noted above, the IRP calls for the addition of nearly 6,000 MW of renewable generation by 2034, and the MPUC specifically required the retirement of Sherco Unit 3 by 2030, which will be the last Sherco Unit to shut down. This amount of new generation will require significant transmission investments by both the Company and MISO to reliably deliver renewable energy from the areas where it is generated to major load centers within NSP's territory. With these challenges in mind, as part of the Alternate Plan the Company analyzed and proposed adding a Sherco transmission tie-line to (1) re-utilize the available interconnection rights for the retiring Sherco coal units and (2) enable the cost-effective interconnection of substantial renewable resources without the risk of substantial costs or delays relating to the MISO queue.

Q. WHY IS IT IMPORTANT TO REUSE THE EXISTING INTERCONNECTION RIGHTS ASSOCIATED WITH THE SHERCO COAL UNITS?

A. Existing transmission capacity continues to be constrained in MISO and beyond, requiring high estimated upgrade costs to bring new generation onto the NSP system and causing transmission congestion to impede the delivery

of energy from certain renewable-rich areas. The Company owns approximately 2,000 MW of interconnection rights at the Sherco POI, which it can retain when the current Sherco Units retire if NSP-owned replacement resources are interconnected within three years of the prior unit's retirement. Given the high costs and delays associated with the MISO interconnection queue, reutilization of the Sherco POI interconnection capacity presents an opportunity for the Company to cost-effectively interconnect large amounts of nameplate capacity that are identified as needed in the IRP while avoiding MISO queue schedule and cost risk.

Q. HAS THIS VALUE BEEN QUANTIFIED?

A. The Company performed an updated analysis comparing the cost of interconnecting the generation identified in the IRP utilizing the Project, as compared to the cost of interconnecting it through the MISO queue, assuming a standard interconnection cost for wind and solar resources. On average, those resources' interconnection upgrades are expected to cost $297/kW if utilizing the Project, versus $490/kW if going through the traditional MISO generation interconnection process, for a total estimated net benefit of $531 million ($2023). This analysis is discussed further in the testimony of Company witness Ms. Farah Mandich, and Company witness Mr. Jason Standing addresses the cost estimates upon which the analysis is based in his testimony.

In addition, and as noted above, the Project will bypass material congestion issues for interconnected generation currently being experienced on the transmission system. In addition to preserving the interconnection rights at the Sherco site, re-use of the interconnection allows the Company to preserve

the Financial Transmission Rights (FTR) associated with the Sherco interconnection which allow the Company to hedge against congestion cost that may be incurred between the existing interconnection at Sherco and our load. The congestion benefits have not been included in the Company's economic analysis.

Q. ARE THERE RESTRICTIONS ON HOW THE SHERCO INTERCONNECTION RIGHTS CAN BE REUSED?

A. Yes. The MISO Tariff provides strict obligations for the re-use of existing interconnection capacity.

From a timing perspective, Attachment X of the MISO Tariff requires that: (1) a request for generator interconnection replacement be submitted at least one year prior to the date that an existing generation facility will cease operation, Attach. X § 3.7.1(ii), and (2) the expected commercial operation date for a replacement facility must be within three years of the date that the existing facility ceases operation, Attach. X § 3.3.1.

From an ownership perspective, the rules provide that only the owner of an existing facility may seek to replace that existing facility with another facility, and that new facility must be owned by the existing facility's owners; the rules do not allow the owner of an existing facility to submit a request for a third party to build a replacement facility that will use the owner's existing interconnection rights.

Q. WHAT ARE THE PRACTICAL IMPLICATIONS OF THESE REQUIREMENTS?

A. To comply with the MISO rules, the Company will need to own approximately

1,300 MW of generation, equivalent to the Company's existing interconnection rights, that will utilize the Project to interconnect at the Sherco Substation POI and will need to procure and in-service that generation within three years of retirement of the existing plant.[4] That said, any surplus interconnection capacity above that used by existing generation does not necessarily need to be owned by the Company.

Q. WHY DID THE COMPANY SELECT LYON COUNTY, MINNESOTA AS THE AREA WHERE THE TERMINAL SUBSTATION FOR THE PROJECT WILL BE LOCATED?

A. Lyon County is an area relatively near to the Sherco Substation where ample renewable generation resources can be developed. Distance was an important consideration because a longer line would be more costly and difficult to construct and permit. Proximity to high-quality renewable resources is key because the Project is meant to connect generation resources with the Sherco Substation POI. Further, as discussed below, the Company evaluated MISO queue requests in the Lyon County vicinity and issued a Request for Information (RFI) to confirm Lyon County as an appropriate end point of the Project. In addition, the existing natural gas infrastructure in Lyon County could be used to develop generation as well.

Q. DID THE RFI AND OTHER QUEUE ANALYSIS CONFIRM THAT THE COMPANY WILL BE ABLE TO DEVELOP SUFFICIENT RENEWABLE GENERATION RESOURCES IN LYON COUNTY?

A. As noted above, the Company evaluated MISO queue requests for wind generation in the vicinity of Lyon County and conducted a RFI in June 2022

[4] The other approximately 700 MW of the approximately 2,000 MW of interconnection rights the Company owns are expected to be in use by the time the Project comes into service. See Case No. PU-21-152.

regarding wind and solar generation in MISO Zone 1, with a preference to projects in the vicinity of Sherco, Lyon County, and areas in between. As described further in the Direct Testimony of Ms. Farah Mandich, the RFI confirmed the significant interest in the development of generation resources in the vicinity of Lyon County and the appropriateness of a Lyon County endpoint—identifying a maximum potential build of 2,300 MW of solar, 7,600 megawatt-hours (MWh) of energy storage, and 4,214 MW of wind, far surpassing the 2,200 MW contemplated to connect with the Project.

Q. ARE THERE REASONABLE ALTERNATIVES TO THE PROJECT?

A. The Company does not believe so. In light of the significant MISO interconnection queue backlog and regional transmission system congestion, the Project is the most practical and viable way to bring interconnected generation on a timing consistent with the Company's identified generation needs.

Q. IS THE COMPANY WORKING TO ALLEVIATE THE MISO INTERCONNECTION QUEUE BACKLOG AND REGIONAL TRANSMISSION SYSTEM CONGESTION YOU DESCRIBE?

A. Yes. MISO has proposed its Long Range Transmission Planning (LRTP) to support reliability across MISO. The LRTP will relieve congestion and is intended to support the ability for anticipated generation to be interconnected and delivered more efficiently to load centers throughout MISO. Mr. Jason Standing provides additional information on the LRTP in his testimony.

Q. IS THE COMPANY PARTICIPATING IN THE MISO LRTP PORTFOLIO?

A. Yes. In 2022, the MISO Board of Directors approved the LRTP Tranche 1

Portfolio of projects, consisting of more than 2,000 miles of additional transmission lines that are expected to allow up to 53 gigawatts of new generation capacity to connect to the transmission grid, including four projects for which the Company will be a partial owner. Mr. Standing provides additional information on the Company's participation in the LRTP process.

Q. IS THE PROJECT STILL NEEDED GIVEN THE LARGE TRANSMISSION BUILDOUT ASSOCIATED WITH THE MISO LRTP?

A. Yes. Although the LRTP projects do provide additional transmission to deliver energy from remote resources to the Company's and other load centers, they will not eliminate the need for the Project or new generation resources interconnecting to it. The Company's IRP includes the addition of substantial new capacity to ensure we meet customer needs, and the ability to deliver that energy – from high resource yield areas – directly to a core location in the Company's system will benefit our customers. Given the terms of the MISO Tariff and the location of the Sherco Substation, the Company can cost-effectively connect with those new resources using the Project. Therefore, the Company views the Project as a necessary complement to the MISO LRTP projects.

B. Project Facilities

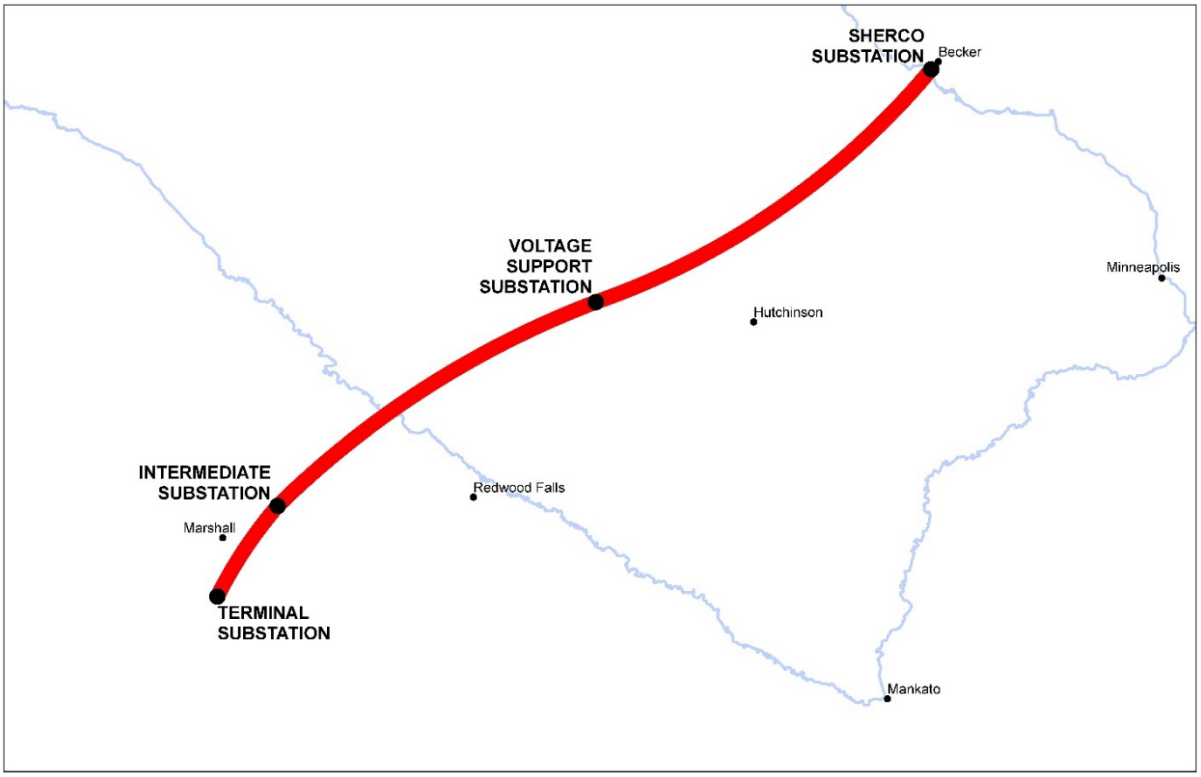
Q. PLEASE PROVIDE AN OVERVIEW OF THE PROJECT FACILITIES.

A. In addition to the double-circuited line itself, the Project consists of a new substation in Lyon County, Minnesota (Terminal Substation), as well as an intermediate substation (Intermediate Substation) and a substation to house voltage support equipment (Voltage Support Substation).

Figure 1 below provides a high-level overview of the facilities proposed, presuming that the Project must provide system support at Lyon County and all voltage support at the Voltage Support Substation.

Figure 1

Project Facilities



Q. PLEASE PROVIDE MORE DETAILS REGARDING THE PROPOSED SUBSTATIONS.

A. The new Terminal Substation will require two synchronous condensers to provide system stability once the level of interconnected wind and/or solar energy reaches 1,000-1,600 MW. Needed system stability support could also be provided by a gas combustion turbine (CT) in the vicinity of the Terminal Substation. If the Company ultimately placed a CT into service near the Terminal Substation before other interconnected generation reached 1,000-

1,600 MW, the CT would provide the requisite system support and replace the synchronous condensers. The Intermediate Substation will facilitate the interconnection of additional generation resources in the vicinity of that substation.

The Voltage Support Substation will include series capacitors and two 150 MW static synchronous compensators (SATCOMs). This is a conservative approach to ensure that the potential wind turbine resonant frequency interactions associated with long highly compensated radial lines are accounted for in Project components and costs. Mr. Standing provides further information on the Project facilities.

Q. WHEN DOES NSP EXPECT TO PLACE THE PROJECT INTO SERVICE?

A. The Company plans to place the Project into service by September 30, 2027. Additional substation equipment will be added at the Terminal, Intermediate, and Voltage Support substations as additional renewable resources come online. NSP expects the buildout to be completed by the end of the third quarter, 2031. As noted above, the need for additional equipment could be eliminated at the Terminal Substation if a CT were constructed near the Terminal Substation.

Q. HAS THE COMPANY BEGUN A SOLICITATION PROCESS FOR INDIVIDUAL GENERATION PROJECTS YET?

A. No. NSP expects to undertake a formal competitive solicitation process to procure specific projects in the future.

Q. COULD INDIVIDUAL PROJECT COMPONENTS CHANGE ONCE THE SOLICITATION PROCESS BEGINS?

A. Yes. Project components supporting the transmission lines may adapt and change as resources are finally determined. For instance, the Alternate Plan filed in the IRP included CT capacity at Lyon County that would serve the same function as the synchronous condensers the Company now plans to install at the Terminal Substation. If NSP were to construct CT capacity in the vicinity of the Terminal Substation, the CT could provide the required stability support to obviate the need for standalone synchronous condensers to support the new 345 kV lines. Apart from this potential modification to the Terminal Substation, other modifications are possible as the Company conducts further studies and selects individual projects through the competitive solicitation process.

Q. AT THIS TIME, HOW DOES THE COMPANY ANTICIPATE THE PROJECT WILL BE CONSTRUCTED?

A. The Company will construct the new Project primarily of single (monopole) steel pole structures. For angles and dead-end structures, a two-pole design will be used. All transmission structures will be a double-circuit design to accommodate both proposed 345 kV lines. Other specialty structures may be used depending on site-specific conditions. The new Project will have a right-of-way of 150 feet.

The proposed structures will typically range in heights from approximately 90 feet to 160 feet tall. The typical spans between structures will be about 1,000 feet. The structures will typically be installed on a drilled pier concrete foundation.

NSP will design the Project lines to meet or surpass relevant local and state codes including National Electric Safety Code (NESC) and Company standards. Applicable standards will be met for construction and installation, and applicable safety procedures will be followed during design, construction, and after installation.

Q. DOES THE PROJECT REQUIRE ANY MODIFICATIONS TO THE EXISTING SHERCO SUBSTATION?

A. Yes. NSP will install new substation equipment necessary to accommodate the proposed Project line at the Sherco Substation. No expansion of the current fenced area will be required to accommodate the new substation equipment, as the existing facility has adequate space to accommodate connection of the Project within the existing substation yard.

Q. WHAT IS THE CURRENT EXPECTED COST OF THE PROJECT?

A. For purposes of this Case and the related CON proceeding in Minnesota, the Company prepared a Project cost estimate based on the Project components required to deliver approximately 2,000 MW from Lyon County to the Sherco Substation. Based on these components and a double-circuit transmission line approximately 180-miles long, the Project is estimated to cost $817 million on a net present value basis ($2023).

Q. IS THIS ESTIMATE CONSISTENT WITH THE ESTIMATE PROVIDED IN THE IRP WHEN THE PROJECT WAS INITIALLY PROPOSED?

A. Yes. During the IRP, the Company estimated the NPV of the proposed gen-tie to the Sherco Substation to be $528 to $713 million ($2021), assuming a 140- to 175-mile route and a per mile cost estimate of approximately $3.5-4

million. When updated, the NPV of this estimate in 2023 dollars is $596 million to $805 million. Given that the current Project estimate is for a 180-mile long route, the current expected Project cost is consistent with the Company's prior estimate when the Project was first proposed. I discuss the Company's economic analysis of the Project further in the next section of my testimony.

Q. WHAT DID THE COMPANY CONSIDER IN REACHING ITS UPDATED COST ESTIMATE?

A. These estimates reflect recent impacts of inflation, supply chain issues, and a tight labor market, each of which contributes to increased costs of construction across the industry. The Company has also undertaken additional project component planning and costing since the original estimate was developed for the IRP. Mr. Standing provides additional detail about our Project cost estimates.

IV. ECONOMIC ANALYSIS

Q. HOW DID THE COMPANY ANALYZE THE PROJECT FROM A COST PERSPECTIVE?

A. The Company compared the updated Project cost described above to an estimated dollar per kilowatt ($/kW) cost for interconnecting new generation via the MISO queue process. As described below, based on this analysis the Company estimates that constructing the Project will save customers $531 million on an NPV basis, when compared to utilizing the regular MISO queue.

Q. WHAT ARE THE COMPANY'S ESTIMATES FOR MISO INTERCONNECTION COSTS AND HOW WERE THEY DEVELOPED?

A. When the Project was first proposed as part of the Alternate Plan in the IRP, NSP assumed that interconnection costs would be $500/kW for wind and $200/kW for solar (NPV $2021). These assumptions reflect our understanding of the current MISO queue constraints and review of the latest Definitive Planning Phase (DPP) process, where interconnection costs are assigned. For the updated analysis performed in support of the Company's Application, the Company confirmed that these numbers were still valid and then updated them for inflation resulting in a $564/kW assumed cost for wind interconnection and $225/kW for solar. Mr. Standing provides further details on the Company's development of the interconnection cost assumptions that we used in the IRP and why they are still valid today.

Q. HOW DOES THIS GENERIC MISO INTERCONNECTION COST COMPARE WITH THE PROJECT COST?

A. Assuming the interconnection of 2,750 MW (approximately 2,150 MW of wind and 600 MW of solar) and an NPV Project cost estimate of $817 million, the weighted average interconnected renewable generation cost for the Project is $297/kW. Interconnecting the same amount of renewable generation on a MISO system basis would cost substantially more, approximately $1.35 billion ($2023 NPV) total and a weighted average of $490/kW for the resources anticipated to be added, using the interconnection cost assumptions described above. Overall, the cost delta between $1.35 billion for the MISO queue and $817 million for the Project results in savings of $531 million for customers (all on an NPV basis). Ms. Mandich provides additional detail on the Company's economic analysis.

V. PRESENTATION OF WITNESSES

Q. WHO ARE THE OTHER WITNESSES FOR THE COMPANY IN THIS PROCEEDING?

A. In addition to my Policy Testimony, the Company is sponsoring the following witnesses:

- Ms. Farah L. Mandich discusses how the Project came about as part of the resource planning cycle to fill an identified need, as well as the economic analysis that the Company performed to assess the prudence of the Project.
- Mr. Jason T. Standing discusses how the Project relates to the Company's overall transmission portfolio and discusses generation interconnection costs and the costs of the Project.

VI. CONCLUSION

Q. PLEASE SUMMARIZE YOUR CONCLUSIONS.

A. The Project is prudent because it will allow the Company to reliably and cost-effectively deliver energy to the system by bypassing material congestion issues for interconnected generation through use of the Company's valuable interconnection rights at the Sherco POI. The Project will allow the Company to connect new generation at an existing interconnection point at the center of the NSP system, at a lower cost to customers than bringing the same amount of generation online through the regular MISO queue process.

Q. DOES THIS CONCLUDE YOUR PRE-FILED DIRECT TESTIMONY?

A. Yes, it does.

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF NORTH DAKOTA

NORTHERN STATES POWER COMPANY
ADVANCE PRUDENCE - LYON COUNTY TO
SHERBURNE COUNTY 345 KV TRANSMISSION LINE
APPLICATION

CASE NO. PU-23-____

VERIFICATION

STATE OF MINNESOTA)
) SS.
COUNTY OF HENNEPIN)

Christopher J. Shaw, being first duly sworn on oath, deposes and says that he is a Regulatory Policy Manager for Applicant Northern States Power Company, a Minnesota corporation, in the above-captioned matter, that the testimony submitted in the above-captioned matter under his name was prepared under his direction, that he knows the contents thereof, and that the same is true and correct to the best of his knowledge and belief.

Christopher J. Shaw

Subscribed and sworn to before me on this 14th day of March, 2023

JODI LYNN YANZ
NOTARY PUBLIC
MINNESOTA
My Commission Expires 1/31/2027

Notary Public
My Commission expires: 1/31/2027

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EXPERIENCE

Xcel Energy
Manager, Regulatory Policy 8/18-Present
Principal Rate Analyst 11/15-8/18
Developed strategy, coordinated subject matter expert analysis and prepared filings for the 2019 Upper Midwest Integrated Resource Plan (IRP), the 2016 IRP filing, Resource Treatment Framework (RTF), and resource acquisitions. Represented the Company at hearings on the IRP and other resource related proceedings.

Minnesota Department of Commerce-Division of Energy Resources
Public Utilities Rates Analyst 8/06-6/12 & 6/13-11/15
Developed and supported the recommendations of the Department of Commerce in proceedings before the Minnesota Public Utilities Commission. Performed analysis of utility regulatory filings. Appeared as an expert witness in numerous contested cases. Analyzed proposed legislation and prepared reports for the Minnesota Legislature.

Minnesota Office of the Attorney General-Anti-Trust and Utilities Division
Assistant Attorney General 6/12-6/13
Advocated for residential and small business energy consumers on behalf of the Attorney General, including advocacy in Xcel Energy's 2012 rate case.

EDUCATION

University of Wisconsin Law School, Madison, WI
J.D.

University of Wisconsin-Madison, Madison, WI
B.A.
Major: Economics-Mathematical Emphasis