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REBUTTAL TESTIMONY
AAKASH H. CHANDARANA

STATE OF NORTH DAKOTA
BEFORE THE
NORTH DAKOTA PUBLIC SERVICE COMMISSION

NORTHERN STATES POWER COMPANY
ADVANCE PRUDENCE – 1,550 MW WIND PORTFOLIO
APPLICATION

CASE NO. PU-17-120

Rebuttal Policy Testimony

Exhibit__ (AHC-2)

September 5, 2017

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I. INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Aakash H. Chandarana. My business address is 401 Nicollet Mall, Minneapolis, MN 55401.

Q. ARE YOU THE SAME AAKASH H. CHANDARANA WHO SUBMITTED PRE-FILED DIRECT TESTIMONY IN THIS PROCEEDING?

A. Yes.

Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

A. The purpose of my Rebuttal Testimony is to respond to the Direct Testimony of Commission Advocacy Staff Witness James A. Heidell. Specifically, my Rebuttal Testimony covers the following topics:

- An overview of Mr. Heidell's testimony, noting his agreement with the Company on almost all of the issues presented; and
- Response to the conditions that he recommends the Commission should place on the Company's requested ADP.

II. MR. HEIDELL'S DIRECT TESTIMONY

Q. PLEASE SUMMARIZE MR. HEIDELL'S DIRECT TESTIMONY.

A. Mr. Heidell's testimony provides his assessment of the Company's proposal to build, and contract for, 1,550 MW of wind generation projects planned to come online in 2019 and 2020 (the Wind Portfolio). Mr. Heidell concludes that the Wind Portfolio should be approved, subject to certain conditions.

Q. DID MR. HEIDELL ACCURATELY DESCRIBE THE PROJECTS COMPRISING THE WIND PORTFOLIO?

A. Yes. He accurately described the seven projects comprising the Wind Portfolio, the status of each project, and the estimated construction cost and total levelized cost of each project.[1] He concluded that although the Wind Portfolio does not meet the Commission's strict "need + least cost" paradigm used to evaluate the prudence of resource additions, he recommends that the Commission should nevertheless consider the Wind Portfolio to be "least cost" because the projected Levelized Cost of Energy (LCOE) of each project is lower than the Company's system average cost and the expected MISO market clearing prices; and because the Company's modeling indicated that the projects are cost effective.[2]

Q. DID MR. HEIDELL REVIEW THE COMPANY'S RESOURCE PLANNING ANALYSES FOR THE WIND PORTFOLIO?

A. Yes. Mr. Heidell considered the Company's planning studies using the Strategist resource planning model to be reasonable (except for the "Markets Off" scenarios, with which Mr. Heidell disagrees with their utility).[3] He also analyzed the Company's estimates of congestion costs and nodal prices.[4] He concluded that the Company's curtailment estimate of four percent was reasonable, and possibly conservative.[5]

[1] Heidell Direct Testimony, pp. 8-11.

[2] *Id.*, pp. 12-14.

[3] *Id.*, pp. 14-19.

[4] *Id.*, pp. 19-26.

[5] *Id.*, p. 24.

Q. DID MR. HEIDELL AGREE WITH THE COMPANY'S ANALYSIS OF THE POTENTIAL COST SAVINGS TO RESULT FROM THE WIND PORTFOLIO?

A. In part. The Company had anticipated that over the life of the Wind Portfolio, it would result in savings (on a present value of revenue requirements (PVRR) basis), of approximately $1.6 billion for the entire NSP System. Mr. Heidell undertook his own independent analysis, and estimated the net present value of the savings to be $1.417 billion.[6] He concluded that the Wind Portfolio would be cost-effective even if market power prices and natural gas prices went down significantly.[7] After analyzing additional considerations, he concluded: "the Projects will result in electricity cost savings to North Dakota customers," and that even if all of the events in his downside case occurred concurrently, "the Wind Portfolio would still be projected to achieve energy cost savings."[8]

Q. DID MR. HEIDELL RECOMMEND THAT THE COMMISSION GRANT AN ADP FOR THE WIND PORTFOLIO?

A. Yes. However, Mr. Heidell suggested that six conditions be imposed on the Company if the Commission grants its requested ADP. These conditions are:

1. North Dakota ratepayers should not have to pay any additional costs if the Company fails to obtain the full Production Tax Credits (PTCs) for any of the Projects;
2. Recovery of construction, interconnection, and transmission costs for the four Company Self-Build Projects should be limited to no more than

[6] *Id.*, p. 27.

[7] *Id*,. p. 32.

[8] *Id.*, p. 39.

[TRADE SECRET BEGINS TRADE SECRET ENDS] in aggregate (adjusted for any projects not constructed).

3. Construction costs for the two Build-Own-Transfer (BOT) Projects should be limited to no more than **[TRADE SECRET BEGINS TRADE SECRET ENDS]** in aggregate (adjusted for any projects not constructed).
4. A financial incentive to the Company should be created whereby if the Projects collectively are constructed and interconnected below budget, the savings are shared, with 60% going to North Dakota ratepayers and 40% being retained by the Company.
5. In conjunction with the monthly fuel cost adjustment filings to the Commission, the Company should provide monthly reports of curtailment and negative pricing observations at each of the Projects, and any known reasons for observed curtailment and negative pricing.
6. The Company should provide quarterly construction progress reports until the last Project is in service, indicating the development status of each Project.[9]

III. THE COMPANY'S RESPONSE TO ADVOCACY STAFF

Q. DID MR. HEIDELL UNDERTAKE A REASONABLE ANALYSIS OF THE COMPANY'S PROPOSED WIND PORTFOLIO?

A. Yes. Mr. Heidell took an independent and detailed "hard look" at the Wind Portfolio. The Company appreciates the rigorous analyses he performed. The Company has no material disagreement with any of his findings or analyses.

[9] *Id.*, pp. 6, 44-47.

Q. How does the Company respond to Mr. Heidell's analysis that the net present value of the savings from the Wind Portfolio is $1.417 billion?

A. Mr. Heidell used substantially more conservative assumptions than the Company used. The Company believes that its assumptions were reasonable, and that Mr. Heidell's assumptions are too conservative. But even under Mr. Heidell's more conservative assumptions, he concluded that the Wind Portfolio will result in very significant savings.

Q. Is there anything in Mr. Heidell's Testimony that changes the Company's previous position that the Wind Portfolio is prudent?

A. No. Mr. Heidell's Direct Testimony confirms that even under his conservative assumptions, the Wind Portfolio is clearly prudent even though it does not fully conform the Commission's strict "need + least cost" resource planning paradigm.

Q. How does the Company respond to the six conditions that Mr. Heidell recommended that the Commission impose as conditions of granting the requested ADP?

A. The Company believes that the imposition of these conditions would be a departure from previous Commission actions on ADPs. More specifically, the Commission has historically either granted, denied, or dismissed the Company's ADP applications without imposing additional conditions in its orders unless the proceeding settled. The Company's experience is that such conditions would be more appropriate for a settled outcome.

With that said, the Company does not object to five of the six conditions; the Company had already agreed to impose a symmetrical cost cap through discovery, attached as Schedule 1. The Company does, however, object to the condition that 60% of any cost savings from successfully developing and interconnecting the Projects under budget be transferred to North Dakota ratepayers.

Q. WHAT WAS THE BASIS FOR MR. HEIDELL'S SUGGESTION THAT 60% OF COST SAVINGS BE TRANSFERRED TO NORTH DAKOTA RATEPAYERS?

A. The only basis set forth in Mr. Heidell's testimony for this recommendation is that "the Company should be aggressively pursuing cost controls even without incentives as part of its obligation to operate efficiently."[10]

Q. DOES THE COMPANY INTEND TO DILIGENTLY WORK TO KEEP COSTS OF THE WIND PORTFOLIO UNDER PROJECTIONS?

A. Of course. But we do not believe that is a valid reason to impose an asymmetrical cost cap. As Mr. Heidell notes, the Company proposed to bear the entirety of any costs higher than what was bid or assumed in discovery for constructing the projects. Additionally, the Company will bear all of risk associated with the Projects not qualifying for 100% of the PTCs, consistent with Mr. Heidell's suggested conditions with which we are willing to agree. If the Company bears all of these risk of cost overruns, it should symmetrically have the opportunity for all of the opportunity for cost savings. We therefore believe that Mr. Heidell's asymmetrical recommendation is arbitrary and inequitable.

[10] *Id.*, p. 47.

Q. ARE THERE OTHER REASONS WHY THE COMPANY OPPOSES MR. HEIDELL'S CONDITION LIMITING THE COMPANY TO ONLY 40% OF ANY COST SAVINGS?

A. There are several. First, Mr. Heidell proposes to treat the Company differently from any of the bidders that bid into the Company's wind request for proposal process (RFP). If only the Company were held to such mechanisms in the future, its bids would include significant potential upside for customers that would not apply to third-party bids, thereby frustrating an apples-to-apples comparison between Company projects and RFP bids. Second, the Company priced its self-build portfolio on the assumption that it would be treated similarly to other bidders and would operate under a symmetrical capital cap. This—along with our proposal to share project risks across our portfolio—contributed to the highly competitive pricing we proposed. Finally, we believe our participation in this acquisition process resulted in additional competition that drove all project costs down for the benefit of our customers. Given this, we do not think it is reasonable to penalize the Company or limit its ability to compete in the market for these kinds of projects in the future.

IV. CONCLUSION

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

A. Yes, it does.

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☐ **Public Document – Not Public (Or Privileged) Data Has Been Excised**
☒ **Public Document**

Xcel Energy

Docket No.:	PU-17-120	Data Request No. 1-27
Response To:	North Dakota Public Service Commission	
Requestor:	Sara Cardwell	
Date Received:	May 10, 2017	

Question:

In the Company's MN filing it discusses subjecting cost recovery to an aggregate capital cap. There is no mention of this in the ND filing. Is the Company's intent not to apply this same protection to ND customers? In the Laborers District Council of Minnesota & North Dakota, there is mention that this cap could result in the use of non-responsible contractors, use of low-wage workers and shoddy construction. The Council also states that the Company's Colorado group already engaged in these practices. How will the Company ensure that these practices to cut corners to ensure the Company keeps costs low and achieves a reward be prevented? The Chamber mentions an alternative sharing methodology in its comments. Please explain the Company's position regarding this alternative.

Response:

It is the Company's intent to apply an aggregate, symmetrical capital cap to our cost recovery in North Dakota.

With regard to the Laborer's Union's concerns about the potential use of non-responsible contractors in building the proposed wind projects, we first note that the Laborer's Union concluded that the Company has established a high standard in building power plants. We believe that the Company demonstrated its ability to carry those high standards into renewable generation when we successfully completed the self-build Courtenay wind farm at the end of last year. Toward that end, we have seasoned Company project teams with in-depth experience and the critical skillsets to effectively manage safety and quality on the proposed self-build projects. Our team will also manage the compliance of balance of plant (BOP) projects with our project specifications that are part of the BOP contracts.

As to the suggestion in this data request that the Labor's Union said Xcel Energy engaged in "non-responsible contractors, use of low-wage workers and shoddy construction in Colorado," this is simply not true. While there is a cost-savings mechanism in place in Colorado for our Rush Creek wind project, there is no evidence the project will be built with non-responsible contractors or that the construction will not be good quality. The use of non-union workers does not automatically equate to poor workmanship.

With regard to the Company's approach to building these projects, we note that our contractor selection process is consistent with other major projects we have successfully delivered in the past, and it enables the Company to provide renewable energy service to our customers at a competitive cost.

While the Company has a long history of success working with union workforces, the firm price RFP was issued to three construction firms for our BOP construction contracts without preference for a union or non-union workforce. These three firms are considered qualified as a result of Xcel Energy's review of their contractor safety statistics and safety programs, their ability to perform the work and technical competence, ability to meet project schedules, previous Xcel Energy and industry experience, financial health and risk assessment, resource capacity, management oversight, construction quality assurance and quality control programs, and present and future availability commitments.

All three contractors have extensive experience constructing wind farms. Each contractor has worked extensively in Minnesota and the Upper Midwest and has installed between 1,200-3,000 MWs of wind generation in 2016 alone.

With regard to safety, Xcel Energy uses a third party administrator to assist with pre-qualification of contractors. The pre-qualification process considers factors such as OSHA recordable injury rates, Experience Modification Rate (EMR), written safety program, OSHA citation history and past fatalities. The selected contractor will also have to renew this information on an annual basis. Xcel Energy's basic criteria for approval of contractors includes an EMR of 1 or less, OSHA incident rates at or below Bureau of Labor Statistics industry averages, and 5-year OSHA inspection and citation history. All three bidders meet or exceed the safety criteria for approval.

Contractor's programs for quality assurance and control are important factors in our selection of qualified bidders because they help ensure good construction quality which, in turn, maximizes the value of the wind generation assets for our customers. All three BOP bidders have strong quality assurance programs, examples of which include:

- On-site quality control coordinator for each project site.
- Implementation of a specific project quality plan that corresponds to our project specifications.
- Use of third party testing company to perform quality assurance testing.

While our BOP selection efforts are still ongoing, due to our rigorous standards and previous experiences with these companies, we believe any of these three companies is capable of executing the construction of these projects safely, efficiently and with good quality.

In regard to the question about a proposal for an alternative sharing mechanism, we do not believe a sharing mechanism is reasonable. First, it proposes to treat the Company differently from any of the bidders in the RFP. If only the Company were held to such mechanisms in the future, its bids would include significant potential upside for customers that would not apply to third-party bids, which would frustrate an apples-to-apples comparison between Company projects and RFP bids. Second, the Company priced its self-build portfolio on the assumption that it would be treated similarly to other bidders and would operate under a symmetrical capital cap. This—along with our proposal to share project risks across our portfolio—contributed to the highly competitive pricing we proposed. Finally, we believe our participation in this acquisition process resulted in additional competition that drove all project costs down for the benefit of our customers. Given this, we do not think it is reasonable to penalize the Company or limit its ability to compete in the market for these kinds of projects in the future.

Preparer:	Bria Shea
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Department:	Regulatory
Telephone:	612-330-6064
Date:	May 24, 2017

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BEFORE THE
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NORTHERN STATES POWER COMPANY
ADVANCE PRUDENCE – 1,550 MW WIND PORTFOLIO
APPLICATION

CASE NO. PU-17-120

VERIFICATION

STATE OF MINNESOTA)
)ss.
COUNTY OF HENNEPIN)

Aakash H. Chandarana, being first duly sworn on oath, deposes and says that he is the Regional Vice-President of Rates and Regulatory Affairs for Applicant Northern States Power Company, a Minnesota corporation, in the above-captioned matter, that the rebuttal 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.

____
Aakash H. Chandarana

Subscribed and sworn to before me on this 1st day of September, 2017.

____
Notary Public
My Commission Expires: 1-31-2020

CYNTHIA D. HARRINGTON
Notary Public, State of Minnesota
My Commission Expires
January 31, 2020