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REBUTTAL TESTIMONY  
AAKASH H. CHANDARANA

**STATE OF NORTH DAKOTA  
BEFORE THE  
NORTH DAKOTA PUBLIC SERVICE COMMISSION**

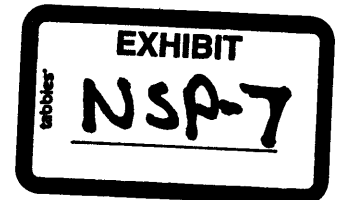
NORTHERN STATES POWER COMPANY  
ADVANCE PRUDENCE – 1,550 MW WIND PORTFOLIO  
APPLICATION

CASE NO. PU-17-120

**Rebuttal Policy Testimony**

Exhibit\_\_ (AHC-2)

September 5, 2017



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Schedule 1 ..... D.R. NDPSC-1-027

**I. INTRODUCTION**

1

2

3 Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

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

6

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

9 A. Yes.

10

11 Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

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

15

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

20

21 **II. MR. HEIDELL'S DIRECT TESTIMONY**

22

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

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

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

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

14

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

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

23

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<sup>1</sup> Heidell Direct Testimony, pp. 8-11.

<sup>2</sup> *Id.*, pp. 12-14.

<sup>3</sup> *Id.*, pp. 14-19.

<sup>4</sup> *Id.*, pp. 19-26.

<sup>5</sup> *Id.*, p. 24.

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

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

14

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

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

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

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<sup>6</sup> *Id.*, p. 27.

<sup>7</sup> *Id.*, p. 32.

<sup>8</sup> *Id.*, p. 39.



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2 Q. HOW DOES THE COMPANY RESPOND TO MR. HEIDELL'S ANALYSIS THAT THE  
3 NET PRESENT VALUE OF THE SAVINGS FROM THE WIND PORTFOLIO IS \$1.417  
4 BILLION?

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

10

11 Q. IS THERE ANYTHING IN MR. HEIDELL'S TESTIMONY THAT CHANGES THE  
12 COMPANY'S PREVIOUS POSITION THAT THE WIND PORTFOLIO IS PRUDENT?

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

17

18 Q. HOW DOES THE COMPANY RESPOND TO THE SIX CONDITIONS THAT MR.  
19 HEIDELL RECOMMENDED THAT THE COMMISSION IMPOSE AS CONDITIONS  
20 OF GRANTING THE REQUESTED ADP?

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

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

7  
8 Q. WHAT WAS THE BASIS FOR MR. HEIDELL'S SUGGESTION THAT 60% OF COST  
9 SAVINGS BE TRANSFERRED TO NORTH DAKOTA RATEPAYERS?

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

13  
14 Q. DOES THE COMPANY INTEND TO DILIGENTLY WORK TO KEEP COSTS OF THE  
15 WIND PORTFOLIO UNDER PROJECTIONS?

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

26  

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<sup>10</sup> *Id.*, p. 47.

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

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

18

19

#### IV. CONCLUSION

20

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

22 A. Yes, it does.

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 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

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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.

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Date: May 24, 2017

