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October 3, 2018

**VIA EMAIL AND FEDERAL EXPRESS**

Darrell Nitschke  
Executive Secretary  
North Dakota Public Service Commission  
600 East Boulevard  
Bismarck, ND 58505-0480

Re: NORTHERN STATES POWER COMPANY  
ADVANCE PRUDENCE—1,550 MW WIND PORTFOLIO APPLICATION  
CASE NO. PU-17-120 (OAH FILE NO. 20170204)

NORTHERN STATES POWER COMPANY  
ADVANCE PRUDENCE – 304.2 MW DAKOTA RANGE WIND APPLICATION  
CASE NO. PU-17-372 (OAH FILE NO. 20170547)

Dear Mr. Nitschke:

Enclosed for filing in the above-referenced Cases please find:

- The Supplemental Testimony of Mr. Aakash H. Chandarana along with Mr. Chandarana's verification of the same.

Please feel free to contact me at (701) 241-8632 or [dave.sederquist@xcelenergy.com](mailto:dave.sederquist@xcelenergy.com) should you have any questions.

Sincerely,

DAVID H. SEDERQUIST  
Sr. Consultant, Regulation & Finance

54 PU-17-372 Filed 10/03/2018 Pages: 16  
Prefiled Supplemental Testimony of Aakash Chandarana  
Northern States Power Company  
David Sederquist

104 PU-17-120 Filed 10/03/2018 Pages: 16  
Prefiled Supplemental Testimony of Aakash Chandarana  
Northern States Power Company  
David Sederquist

Enclosures

cc: ALJ Patrick Ward  
Ilona Jeffcoat-Sacco  
Mitch Armstrong  
Jerry Lein  
Pat Fahn  
Victor Schock  
John Schuh  
Dave Sederquist  
Ryan Long

SUPPLEMENTAL 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  
OAH FILE No. 20170204

NORTHERN STATES POWER COMPANY  
ADVANCE PRUDENCE – 302.4 MW DAKOTA RANGE  
WIND APPLICATION

CASE No. PU-17-372  
OAH FILE No. 20170547

**Testimony in Support of Settlement**

Exhibit\_\_\_\_(AHC-4)

October 3, 2018

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1 **I. INTRODUCTION**

2 Q. PLEASE STATE YOUR NAME AND TITLE.

3 A. My name is Aakash H. Chandarana. I am the Regional Vice President for  
4 Rates and Regulatory Affairs for Northern States Power Company-  
5 Minnesota (NSP or Xcel Energy or the Company). My business address is  
6 401 Nicollet Mall, Minneapolis, MN 55401.

7  
8 Q. ARE YOU THE SAME AAKASH H. CHANDARANA WHO SUBMITTED TESTIMONY  
9 IN THESE CASES?

10 A. Yes.

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

13 A. The purpose of my testimony is to provide support for the Second  
14 Settlement Agreement and Joint Stipulation of Capital Expenditure Costs  
15 (Joint Stipulation), both of which have been entered into by the Company  
16 and the North Dakota Public Service Commission Advocacy Staff  
17 (Advocacy Staff) in Case Nos. PU-17-120 and PU-17-372 (the Consolidated  
18 Cases).

19  
20 **II. BACKGROUND**

21 Q. PLEASE DESCRIBE THE COMPANY'S WIND PORTFOLIO.

22 A. The Wind Portfolio consists of seven wind projects of varying sizes, totaling  
23 approximately 1,550 MW of additional generation resources, located in  
24 Minnesota, North Dakota, South Dakota, and Iowa. The Wind Portfolio is  
25 comprised of four self-build projects (Blazing Star I, Blazing Star II, Foxtail,  
26 and Freeborn), one combined Power Purchase Agreement (PPA) and Build-  
27 Own-Transfer (BOT) project (Crowned Ridge), one BOT project (Lake

1 Benton), and one PPA project (Clean Energy #1) (collectively, the Wind  
2 Portfolio), as summarized below:

3

Project Name	Size	Type	Location	In-Service Date
Foxtail	150 MW	Self-Build	Dickey County, ND	3Q 2019
Crowned Ridge	600 MW	Combined BOT and PPA	Codington County, SD	4Q 2019
Lake Benton	100 MW	BOT	Pipestone County, MN	4Q 2019
Clean Energy #1	100 MW	PPA	Mercer, Morton Counties, ND	4Q 2019
Blazing Star I	200 MW	Self-Build	Lincoln County, MN	4Q 2019
Blazing Star II	200 MW	Self-Build	Lincoln County, MN	3Q 2020
Freeborn	200 MW	Self-Build	Freeborn County, MN; Worth, Mitchell Counties, IA	4Q 2020

4  
5 Q. PLEASE PROVIDE AN UPDATE ON THE STATUS OF CASE NO. PU-17-120 SINCE  
6 THE FILING OF THE INITIAL SETTLEMENT AGREEMENT.

7 A. On September 19, 2017, the Company and Advocacy Staff filed with the  
8 Commission a Settlement Agreement that provided for the agreement of the  
9 Parties regarding the Company's Application for an Advanced  
10 Determination of Prudence (ADP) for the Wind Portfolio. More  
11 specifically, the Settlement Agreement determined that the Wind Portfolio  
12 was a prudent addition, subject to certain conditions related to capital costs  
13 and customer protections related to capturing the Production Tax Credits  
14 (PTC). Shortly thereafter on September 22, 2017, the Parties filed the First  
15 Revised Settlement Agreement, which maintained substantially the same  
16 information as the initial Settlement Agreement, but addressed certain trade  
17 secret concerns.

18  
19 On March 19, 2018, the Company and Advocacy Staff jointly requested that  
20 the Commission postpone Case No. PU-17-120 and withdrew the Parties'  
21 First Revised Settlement Agreement so that the Application could be

1 updated to reflect the impacts of the 2017 Tax Cuts and Jobs Act (TCJA),  
2 along with other modifications to the costs and savings of the Wind  
3 Portfolio. The Commission approved the joint request on April 11, 2018.

4  
5 On May 18, 2018, Xcel Energy filed a Supplement to its Application (Wind  
6 Portfolio Supplement) to provide updated economic data and modeling to  
7 reflect the impacts of the TCJA and other changes to the portfolio. The  
8 Wind Portfolio Supplement explained that the net impact of the changes  
9 result in a present value of revenue requirement (PVRR) savings of \$1.4  
10 billion system-wide and about \$75 million for Xcel Energy's North Dakota  
11 customers. This compares to the PVRR savings presented in the initial  
12 Wind Portfolio ADP Application of \$1.6 billion system-wide and \$85 million  
13 to North Dakota customers.

14  
15 Advocacy Staff reviewed the Wind Portfolio Supplement and, on August 20,  
16 2018, filed the Supplemental Direct Testimony of Mr. James Heidell, who  
17 found that the Company's estimate of \$1.4 billion PVRR savings for the  
18 Wind Portfolio is reasonable and recommended that the Company's  
19 requested ADP be granted, subject to certain conditions.

20  
21 Q. WHAT WERE THE CONDITIONS RECOMMENDED BY MR. HEIDELL IN HIS  
22 SUPPLEMENTAL TESTIMONY?

23 A. In light of the Company's estimate of \$1.4 billion PVRR savings for the  
24 Wind Portfolio, Mr. Heidell recommended the requested ADP be granted  
25 with the following conditions:

- 26 1. North Dakota ratepayers should not have to pay any additional costs if  
27 the Company fails to obtain the full PTCs for any of the Projects  
28 comprising the Wind Portfolio;

- 1           2. Recovery of construction, interconnection, and transmission costs for the  
2           four Company Self-Build Projects should be limited to no more than the  
3           amount budgeted by the Company in aggregate (adjusted for any projects  
4           not constructed);
- 5           3. Construction costs for the two BOT Projects should be limited to no  
6           more than the amount budgeted by the Company in aggregate (adjusted  
7           for any projects not constructed);
- 8           4. In conjunction with monthly Fuel Cost Rider filings to the Commission,  
9           the Company should provide monthly reports of curtailment and  
10          negative pricing observations at each of the projects, and any known  
11          reasons for observed curtailment and negative pricing; and
- 12          5. The Company should provide quarterly construction progress reports  
13          until the last project is in service, indicating the development status of  
14          each project.

15  
16          These conditions mirrored the conditions agreed to by the Parties in the  
17          First Revised Settlement Agreement.

18  
19    Q.    PLEASE BRIEFLY DESCRIBE THE PROPOSED DAKOTA RANGE PROJECT.

20    A.    The Dakota Range project is a 302.4 MW self-build wind project located in  
21          Coddington County, South Dakota, with an expected in-service date of  
22          2021.

23  
24    Q.    PLEASE DISCUSS THE STATUS OF CASE NO. PU-17-372 REGARDING DAKOTA  
25          RANGE.

26    A.    On October 10, 2017, in Case No. PU-17-372, NSP filed an application for  
27          an ADP to build, own, and operate the proposed 302.4 Dakota Range I and  
28          II wind projects near Watertown, South Dakota (Dakota Range). On  
29          February 5, 2018, Xcel Energy filed a request to postpone the proceedings  
30          while the Company evaluated impacts of the TCJA on Dakota Range. On

1 March 23, 2018, the Company filed a Supplement to the Dakota Range ADP  
2 Application to update the Commission on the effects of the TCJA and other  
3 changes to the project and provide updated economic data and modeling  
4 (Dakota Range Supplement). Based upon this new information, the  
5 Company projected that the Dakota Range I and II projects would produce  
6 a PVRR savings of \$167 million system-wide and \$9 million for North  
7 Dakota customers.

8  
9 On July 30, 2018, Advocacy Staff filed the Direct Testimony of Mr. Heidell  
10 in Case No. PU-17-372. Mr. Heidell concluded that the Dakota Range  
11 project is prudent because it would lower electricity costs for the Company's  
12 North Dakota customers, and recommended that the Commission approve  
13 the Dakota Range ADP Application with the following conditions:

- 14  
15 1. Recovery of construction, interconnection, and transmission costs for the  
16 Dakota Range I and II Projects should be limited to no more than the  
17 amount budgeted by the Company in aggregate with recovery of any  
18 supplemental construction cost subject to Commission review; and  
19 2. The North Dakota ratepayers should not have to pay any additional costs  
20 if the Company fails to obtain all of the PTCs available to the Project.

21  
22 **III. SUPPORT FOR SETTLEMENT**

23 Q. HAVE THE COMPANY AND ADVOCACY STAFF ENTERED INTO A SETTLEMENT  
24 IN THESE CONSOLIDATED CASES?

25 A. Yes. Xcel Energy and Advocacy Staff have engaged in settlement  
26 discussions for both the Wind Portfolio and Dakota Range. Based on those  
27 discussions, the Parties have entered into the Second Settlement Agreement,  
28 which has terms that are largely similar to the terms in the First Revised

1 Settlement Agreement with regard to the Wind Portfolio and now includes  
2 Dakota Range. In addition, the Parties have entered into a Joint Stipulation,  
3 which clarifies the record in the consolidated Cases with respect to the  
4 budgeted capital expenditure costs of the projects comprising the Wind  
5 Portfolio and Dakota Range, as those projects are described and updated in  
6 the Company's Wind Portfolio Supplement and Dakota Range Supplement.

7  
8 Q. PLEASE DESCRIBE THE SECOND SETTLEMENT AGREEMENT ENTERED INTO  
9 BY THE COMPANY FOR THE SETTLEMENT OF THE CONSOLIDATED CASES.

10 A. First, the Second Settlement Agreement reflects the agreement of the Parties  
11 that the Commission should grant ADPs for the Wind Portfolio and for  
12 Dakota Range, subject to conditions. Second, the Second Settlement  
13 Agreement provides for the recovery of costs of the Wind Portfolio and  
14 Dakota Range. For some of these projects, a cap is imposed up to a  
15 specified budgeted capital expenditure amount as set forth in the Joint  
16 Stipulation. Third, the Second Settlement Agreement provides customer  
17 protections in the event that a particular wind project is unable to capture  
18 the available PTCs, for whatever reason. Fourth, the Second Settlement  
19 Agreement imposes certain reporting requirements on the Company.

20  
21 Q. WHAT IS MEANT BY "BUDGETED CAPITAL EXPENDITURE AMOUNT?"

22 A. For the purposes of the Joint Stipulation and Second Settlement Agreement,  
23 the phrase "budgeted capital expenditure amount" means the Company's  
24 current estimate of the capital costs, including the costs of transmission  
25 interconnection service under any relevant generator interconnection  
26 agreement, but excluding allowance for funds used during construction

1 (AFUDC) and other customary adders to capital expenditures to calculate  
2 capital additions for ratemaking purposes.

3  
4 Q. HOW DOES THE SECOND SETTLEMENT AGREEMENT DISTINGUISH AMONG  
5 THE VARIOUS PROJECTS COMPRISING THE WIND PORTFOLIO AND DAKOTA  
6 RANGE?

7 A. The Second Settlement Agreement distinguishes between “Self Build  
8 Projects,” “BOT Projects,” and “PPA Projects,” and provides different  
9 treatment for each category. The Self Build Projects include: Foxtail,  
10 Blazing Star I and II, Freeborn, and Dakota Range I and II. The BOT  
11 Projects include: Lake Benton, and the non-PPA portion of Crowned  
12 Ridge. The PPA Projects include: Clean Energy #1 and the non-BOT  
13 portion of Crowned Ridge.

14  
15 Q. WHAT CONDITIONS ARE IMPOSED ON THE ADPs FOR THE SELF BUILD  
16 PROJECTS?

17 A. The Parties agree that the Self Build Projects are prudent up to the Self Build  
18 Expenditure Amount as identified in the Joint Stipulation, and as may be  
19 adjusted due to the cancellation of a particular Self Build Project through  
20 subtraction of the budgeted capital expenditure cost of the cancelled project.  
21 The Second Settlement Agreement stipulates that the finding of prudence up  
22 to the Self Build Expenditure Amount does not imply that any costs above  
23 the Self Build Expenditure Amount are imprudent.

24  
25 Q. WHAT CONDITIONS ARE IMPOSED ON THE ADPs FOR THE BOT PROJECTS?

26 A. The Parties agree that the BOT Projects are prudent up to the BOT  
27 Expenditure Amount as identified in the Joint Stipulation, and as may be

1 adjusted due to the cancellation of a particular BOT Project through  
2 subtraction of the budgeted cost of the cancelled project. The Second  
3 Settlement Agreement stipulates that the finding of prudence up to the BOT  
4 Expenditure Amount does not imply that any costs above the BOT  
5 Expenditure Amount are imprudent.

6  
7 Q. WHAT CONDITIONS ARE IMPOSED ON THE ADPs FOR THE PPA PROJECTS?

8 A. The Parties agree that the PPA Projects are prudent under their contract  
9 terms without condition.

10  
11 Q. WHAT DOES THE SECOND SETTLEMENT AGREEMENT ESTABLISH FOR  
12 RATEMAKING PURPOSES?

13 A. The Parties agree that the ADPs for the Wind Portfolio and Dakota Range  
14 are binding for ratemaking purposes. Xcel Energy may seek to reflect the  
15 capital additions or PPA costs of the Wind Portfolio and Dakota Range, as  
16 applicable, in its North Dakota rates through its Fuel Cost Rider, a general  
17 rate case, other applicable riders, or other ratemaking mechanisms that may  
18 be applicable and available. Xcel Energy may include in rates the costs of  
19 purchased power for the PPA Projects and include in rate base the capital  
20 additions for the BOT Projects and Self Build Projects calculated from the  
21 Company's actual capital expenditures for the BOT Projects and Self Build  
22 Projects up to the BOT Expenditure Amount and/or the Self Build  
23 Expenditure Amount, as applicable.

24

1 Q. IF THE ACTUAL AGGREGATE CAPITAL EXPENDITURES FOR THE BOT  
2 PROJECTS OR THE SELF BUILD PROJECTS EXCEED THEIR RESPECTIVE  
3 BUDGETED EXPENDITURE AMOUNTS AS IDENTIFIED IN THE JOINT  
4 STIPULATION, WHAT DOES THE SECOND SETTLEMENT AGREEMENT  
5 PROVIDE?

6 A. In such a scenario, Xcel Energy may include in rate base the capital additions  
7 for the BOT Projects and Self Build Projects calculated from capital  
8 expenditures equivalent to the BOT Expenditure Amount and the Self Build  
9 Expenditure Amount, as applicable, pursuant to the ADPs discussed above.  
10 Xcel Energy may also seek approval from the Commission to include in rate  
11 base the capital additions calculated from the capital expenditures in excess  
12 of the relevant budgeted expenditure amount upon a showing to the  
13 Commission that the capital expenditures above the Expenditure Amounts  
14 are reasonable and prudent. Xcel Energy carries the burden of proof to  
15 demonstrate the reasonableness of capital expenditures above the  
16 Expenditure Amounts.

17

18 Q. HOW DOES THE SECOND SETTLEMENT AGREEMENT TREAT PRODUCTION  
19 TAX CREDITS?

20 A. The Parties agree that North Dakota ratepayers will not have to pay any  
21 additional costs if the Company fails to obtain the full PTCs for any of the  
22 projects comprising the Wind Portfolio and 80 percent PTCs (the full  
23 amount available) for Dakota Range.

24

25 Q. ARE THE WIND PORTFOLIO AND DAKOTA RANGE PRUDENT RESOURCE  
26 ADDITIONS?

27 A. Yes.

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Q. PLEASE EXPLAIN.

A. Xcel Energy has a unique opportunity to prudently secure a significant amount of wind resources at the lowest cost we have seen to date. We undertook a detailed process of identifying competitive projects and analyzing the potential costs and risks. The result was the Wind Portfolio and Dakota Range. Ultimately, the Wind Portfolio and Dakota Range, together, are estimated to provide approximately \$1.6 billion in cost PVRR savings over their lives on a system-wide basis, or approximately \$85 million in PVRR savings for the Company’s North Dakota customers.

The Wind Portfolio and Dakota Range will provide significant quantitative and qualitative benefits to our customers, and appropriately balances benefits and risks. Moreover, our updated cost analyses in the Wind Portfolio Supplement and Dakota Range Supplement, which, among other things, incorporate the impacts of the TCJA, demonstrate that all of the projects remain highly cost-effective and will result in substantial and lasting benefits for our customers and the state.

I note further that this Second Settlement Agreement reflects general agreement between the Company and Advocacy Staff on all relevant items related to the prudence of the projects and the related rate recovery. In particular, the soft cap on recovery for capital expenditures associated with the Self Build Projects and BOT Projects will provide reasonable protections for ratepayers and the Company will bear the burden to demonstrate that any amounts above the budgeted Expenditure Amounts are reasonable and prudent. Furthermore, the Second Settlement Agreement ensures that

1 customers will obtain the maximum available benefits for the PTCs for all  
2 projects by precluding further cost recovery if the Company fails to obtain  
3 the full amount of PTCs available for each project. Lastly, the Company's  
4 commitment to provide ongoing reports to the Commission will provide the  
5 Commission with meaningful oversight to ensure that costs are prudently  
6 incurred.

#### 8 **IV. CONCLUSION**

9 Q. DOES THIS CONCLUDE YOUR TESTIMONY IN SUPPORT OF SETTLEMENT?

10 A. Yes, it does.

