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Rebuttal Testimony and Schedules
Benjamin C. Halama

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 151.2 MW Dakota Range III Wind Facility

Case No. PU-18-430

Cost Allocation

Exhibit____(BCH-1)

June 12, 2019

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I. INTRODUCTION

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- Q. PLEASE STATE YOUR NAME AND TITLE.
- A. My name is Benjamin C. Halama. I am Interim Director of Revenue Requirements North for Xcel Energy Services Inc. (XES or the Service Company).
- Q. PLEASE DESCRIBE YOUR QUALIFICATIONS AND EXPERIENCE.
- A. I have over four years of experience at XES, which is the services company of Xcel Energy, Inc. that supports Northern States Power Company – Minnesota (NSP or Xcel Energy or the Company), in the areas of regulatory accounting, financial operations, and revenue requirements. In my current role, I am responsible for the development of jurisdictional revenue requirements for all NSP jurisdictions. My resume is attached as Exhibit___(BCH-1), Schedule 1.
- Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?
- A. I am testifying on behalf of the Applicant in this Case, Northern States Power Company – Minnesota. The purpose of my Rebuttal Testimony is to address Advocacy Staff Witness James A. Heidell’s discussion of allocation methodologies utilized by the Company and how the load growth due to the Google data center impacts the cost allocation between the Company’s jurisdictions of North Dakota, South Dakota, and Minnesota.
- Q. PLEASE SUMMARIZE YOUR CONCLUSIONS.
- A. I conclude that the addition of the Google load provides cost savings to

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1 North Dakota customers under all cost allocation calculations. I further
2 conclude that when all costs are accounted for, the addition of Dakota
3 Range III and the Google load results in cost savings to North Dakota
4 customers of approximately *[TRADE SECRET BEGINS*
5 *TRADE SECRET ENDS]* on a present value of revenue requirements
6 (PVRR) basis.

7
8 Q. HOW IS YOUR TESTIMONY ORGANIZED?

9 A. My Testimony is organized as follows:

- 10 • Section II provides a general summary of cost allocation methods
11 used by the Company;
- 12 • Section III discusses the impact of adding the Google load on the
13 Company's cost allocations;
- 14 • Section IV discusses the cost savings from adding the Google load
15 under various cost allocation scenarios; and
- 16 • Section V sets forth my conclusions.

17
18 **II. ALLOCATION METHODS**

19
20 Q. WHAT ARE ALLOCATION METHODS?

21 A. To provide electric service, the Company incurs various different types of
22 costs. Given the structure of Xcel Energy, these costs need to be allocated
23 to our various jurisdictions to calculate a jurisdictional cost of service which
24 is ultimately reflected in each state's commission-approved rates. To the
25 extent possible, we try to directly assign to each state their portion of overall
26 Xcel Energy costs based on cost causation principles. As an example,

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1 distribution system costs – which are local in nature – are directly assigned to
2 each jurisdiction as they are incurred. However, not all costs can or should
3 be directly assigned. For example, the costs of our power plants are
4 common costs that support all of our jurisdictions and therefore a portion of
5 their costs are appropriately allocated to each jurisdiction. Consequently, we
6 have developed, and the Commission has approved, various methods to
7 allocate these common system costs in a cost causative manner.

8
9 Q. PLEASE DESCRIBE THE DIFFERENT COST ALLOCATION METHODS.

10 A. NSP uses three methods to assign and allocate O&M expense, plant and
11 plant related, and other rate base investment to jurisdiction:

- 12
13 1. Direct assignment based on FERC account and location,
14 2. Allocation based on cost causation, and
15 3. Allocation based on a default allocator.

16
17 Determination of the assignment and allocation of costs to a jurisdiction is
18 an annual process designed to identify the jurisdiction(s) that receive the
19 benefit from the cost or investment.

20
21 Q. PLEASE DESCRIBE THE DIRECT ASSIGNMENT BASED ON FERC ACCOUNT
22 AND LOCATION ALLOCATION METHOD.

23 A. The first method we use is to direct assign costs whenever possible. For
24 example, the distribution portion of an electric substation (that which is
25 assigned to a Distribution FERC account function) that is located in the
26 Twin Cities Metro Area can be directly assigned to the State of Minnesota

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1 jurisdiction based on location as it directly serves only customers in
2 Minnesota. In addition, all gas transmission and distribution property is
3 directly assigned to the jurisdiction based on where the property is located.

4
5 Q. PLEASE DESCRIBE ALLOCATION BASED ON COST CAUSATION.

6 A. The second method NSP uses identifies all investments and costs that can
7 be assigned to a jurisdiction based on a causal relationship, and allocates
8 these costs using the most cost-causal allocation method. The cost causation
9 allocator used for electric production expense or plant investment is either a
10 twelve-month coincident peak demand (12CP) or energy, depending on the
11 type of expense or plant investment. The 12CP demand production
12 allocator is used to assign fixed capacity related expenses, plant, and plant-
13 related items to a jurisdiction. Other expenses allocated to a jurisdiction
14 based on demand include: fixed production expenses, purchased power
15 demand expense, interchange agreement demand charges and regulatory
16 expenses not directly related to one of NSP's jurisdictions. Also, any
17 administrative and general (A&G) costs that are directly in support of
18 production are allocated using this method.

19
20 If the expense is variable in nature, energy is used to make the assignment to
21 a jurisdiction. Fuel and fuel-related items are assigned to a jurisdiction based
22 on the energy allocator because of the direct correlation of customer sales
23 and the level of fuel consumed. These items include all fuel, purchased
24 energy, interchange agreement energy, and variable production expenses.

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1 Q. PLEASE DESCRIBE THE THIRD COST ALLOCATION METHOD.

2 A. Costs and investments that cannot be assigned to jurisdiction using either
3 direct assignment or allocation based on cost causation as described above
4 are allocated to jurisdiction using a default allocator. Typically,
5 administrative and general (A&G) costs not directly in support of a specific
6 function are allocated using a default allocator with equal weighting of plant
7 in service, demand, and customer allocators.

8

9 **III. IMPACT OF GOOGLE LOAD ON COST ALLOCATION**

10

11 Q. WHAT IMPACT DOES THE GOOGLE LOAD HAVE ON THE ALLOCATION OF
12 COMMON COSTS?

13 A. If the Google data center comes online, the Google load will have the effect
14 of increasing both system demand and sales in Minnesota. Consequently,
15 the Google load will cause more overall system costs to shift from North
16 Dakota and South Dakota to Minnesota.

17

18 Q. HAS THE COMPANY ANALYZED THE IMPACT OF THE GOOGLE LOAD ON
19 SYSTEM COST ALLOCATION?

20 A. Yes. The Company analyzed the impact to the allocation of costs based on
21 demand. The analysis is presented by Company Witness Philip J. Martin in
22 his Direct Testimony at page 8, line 20 through page 9, line 11.

23

24 Q. DID THIS ANALYSIS INCLUDE COSTS ALLOCATED DUE TO ENERGY
25 CONSUMPTION?

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1 A. No. In Section IV below, I provide an updated analysis that incorporates
2 the change in costs due to the updated energy consumption related to the
3 Google load, among other things.

4

5 Q. DID THIS ANALYSIS INCLUDE THE ADDITIONAL NSP SYSTEM COSTS OF
6 SERVING THE GOOGLE LOAD?

7 A. No. As Mr. Martin explains in his Rebuttal Testimony, based on the
8 assumptions agreed to by Advocacy Staff and the Company, there are an
9 additional *[TRADE SECRET BEGINS* *TRADE SECRET*
10 *ENDS]* in system production costs on a present value of revenue
11 requirements (PVRR) basis due to the need to support the Google load,
12 including the addition of the Dakota Range III project. I discuss this further
13 below.

14

15 Q. HAVE YOU UPDATED THIS ANALYSIS TO INCLUDE THE FULL IMPACT OF
16 SERVING THE GOOGLE LOAD?

17 A. Yes. As demonstrated in Section IV below, while overall system costs
18 increase due to the addition of the Google load, costs for North Dakota
19 customers decrease due to the demand and energy allocators and the shifting
20 of other system costs to Minnesota.

21

22 **IV. GOOGLE COST SAVINGS**

23

24 Q. HAVE YOU ANALYZED THE SUPPLEMENTAL ANALYSIS PROVIDED BY THE
25 COMPANY IN RESPONSE TO COMMISSION DATA REQUEST NO. 2-008?

26 A. Yes. I will refer to this analysis as the Supplemental Analysis.

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1 Q. WHAT DOES THE SUPPLEMENTAL ANALYSIS DEMONSTRATE?

2 A. The Supplemental Analysis demonstrates that when the impact of changes to
3 the demand allocator are applied to the increased system production costs of
4 supporting the Google load, with Dakota Range III added to the system,
5 there are net cost savings to North Dakota customers of *[TRADE*
6 *SECRET BEGINS* *TRADE SECRET ENDS]* PVRR.

7
8 Q. MR. HEIDELL ARGUES THAT THE SUPPLEMENTAL ANALYSIS IS INCOMPLETE
9 BECAUSE THE COMPANY ONLY ANALYZED THE IMPACT OF CHANGES DUE TO
10 DEMAND ALLOCATION AND DID NOT INCLUDE AN ENERGY ALLOCATION
11 ANALYSIS. DO YOU AGREE?

12 A. The application of the demand allocation provides a reasonable estimation
13 of overall system savings. However, applying both an energy and demand
14 allocation analysis would provide a more accurate estimate.

15
16 Q. DID MR. HEIDELL PERFORM THIS ANALYSIS?

17 A. Yes. Mr. Heidell's analysis attempted to more accurately analyze the impact
18 of cost allocation by allocating some production costs via energy and some
19 production costs via demand. His results indicated cost savings of between
20 *[TRADE SECRET BEGINS* *TRADE SECRET ENDS]*
21 PVRR and *[TRADE SECRET BEGINS* *TRADE SECRET*
22 *ENDS]* PVRR, which I believe validates the Company's estimate of
23 *[TRADE SECRET BEGINS* *TRADE SECRET ENDS]*
24 PVRR savings in the Supplemental Analysis.

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1 Q. DO YOU SUPPORT MR. HEIDELL'S METHODOLOGY?

2 A. I do, to the extent it is a reasonable approximation of production cost
3 savings.

4

5 Q. IS THE SUPPLEMENTAL ANALYSIS AND MR. HEIDELL'S REFINEMENT OF THAT
6 ANALYSIS COMPLETE?

7 A. No. As Mr. Martin discusses in his Rebuttal Testimony, the analysis
8 performed in response to Data Request 2-008 (by both the Company and
9 Mr. Heidell) analyzed the type of data that is used as inputs into Strategist,
10 namely the Company's generation costs. The data does not reflect the other
11 system costs impacted by both energy and demand cost allocation.
12 Therefore, the Supplemental Analysis understates the cost savings to our
13 North Dakota customers of Dakota Range III and the Google load.

14

15 Q. HAS THE COMPANY PERFORMED A COMPLETE ANALYSIS?

16 A. Yes. In order to obtain a full picture of all costs impacted by the Google
17 load, not just the production costs included in the Supplemental Analysis, we
18 performed an additional analysis (Cost Allocation Analysis). In response to
19 Mr. Heidell's concerns, this analysis allocated costs based on both the
20 demand and energy allocators, as well as other system costs which will shift
21 to Minnesota with the addition of the Google load.

22

23 Q. HOW WAS THE COST ALLOCATION ANALYSIS PERFORMED?

24 A. The Cost Allocation Analysis used the same assumptions agreed to for the
25 Supplemental Analysis, but made some changes to the analysis to make it
26 more reflective of actual cost savings. First, as we did in the Supplemental

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1 Analysis, we calculated the shift in the demand allocator due to the Google
2 load. However, this revised demand allocator was applied only to the non-
3 fuel cost assumptions from the Supplemental Analysis. Second, to account
4 for the shifting of fuel costs due to the Google load, we recalculated a
5 revised energy allocator based on the assumed load addition levels for the
6 Google load in the Supplemental Analysis *[TRADE SECRET BEGINS*
7 *TRADE SECRET ENDS]* in year one, growing to *[TRADE*
8 *SECRET BEGINS* *TRADE SECRET ENDS]*. To
9 calculate the energy allocator, we used the 2019 Budget Energy allocator as a
10 starting point and assumed a *[TRADE SECRET BEGINS* *TRADE*
11 *SECRET ENDS]* percent load factor for the Google load. This allocator
12 was applied to the fuel costs as provided by the Strategist run from the
13 Supplemental Analysis. Last, we calculated a cost allocation change in non-
14 production functions (transmission and administrative and general costs) due
15 to the Google load at various load levels, using 2018 actual results as the
16 baseline. We used the 2018 results because they are known and auditable
17 and thus provide a reliable estimate of the shifting of these costs due to
18 increased load in one of our jurisdictions.

19
20 Q. WHAT WERE THE RESULTS OF THE COST ALLOCATION ANALYSIS?

21 A. The Cost Allocation Analysis found that the addition of the Google load at
22 load levels assumed the Supplemental Analysis generates *[TRADE*
23 *SECRET BEGINS* *TRADE SECRET ENDS]* PVRR
24 savings to North Dakota customers. The Supplemental Analysis estimated
25 savings of *[TRADE SECRET BEGINS* *TRADE SECRET*
26 *ENDS]* PVRR, based on the shifting of costs due to the demand allocator

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1 alone. When the energy allocator and the shifting of other system costs
2 (transmission and administrative and general) are also considered, the
3 savings to North Dakota customers as a result of the Google load increase
4 by *[TRADE SECRET BEGINS* *TRADE SECRET ENDS]*
5 PVRR. The complete savings from addition of the Google load and Dakota
6 Range III range from *[TRADE SECRET BEGINS* *TRADE*
7 *SECRET ENDS]* to *[TRADE SECRET BEGINS* *TRADE*
8 *SECRET ENDS]* in any given year based on the size of load, sales, and
9 system costs to support the Google load.

10
11 The full results of the Cost Allocation analysis are attached as
12 Exhibit____(BCH-1), Schedule 2.

13
14 Q. ARE THESE SAVINGS MATERIAL?

15 A. Yes. We believe these savings have a material impact on the overall revenue
16 requirement over the time frame analyzed. In light of this, the Dakota
17 Range III project is clearly prudent on a standalone basis and as a means of
18 inducing the Google load to come onto the NSP System.

V. CONCLUSION

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20
21
22 Q. PLEASE SUMMARIZE YOUR CONCLUSIONS.

23 A. I conclude that Dakota Range III generates savings for North Dakota
24 customers in all calculations, and when the shifting of all system costs are
25 considered, the savings are significantly greater than those identified by Mr.
26 Heidell and by the Company's previous analyses.

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- 1 Q. DOES THIS CONCLUDE YOUR PRE-FILED REBUTTAL TESTIMONY?
- 2 A. Yes, it does.

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF NORTH DAKOTA

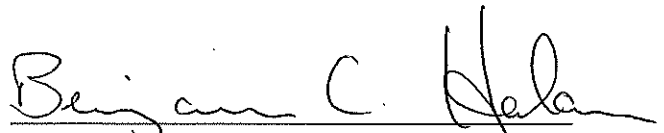
NORTHERN STATES POWER COMPANY
ADVANCE PRUDENCE
151.2 MW DAKOTA RANGE III WIND FACILITY

CASE No. PU-18-430

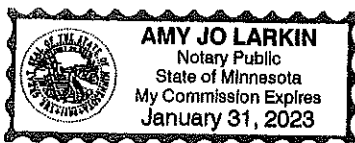
VERIFICATION


STATE OF MINNESOTA)
)SS.
COUNTY OF HENNEPIN

Benjamin C. Halama, being first duly sworn on oath, deposes and says that he is the Interim Director of Revenue Requirements North for Xcel Energy Services Inc. serving 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.


Benjamin C. Halama

Subscribed and sworn to before me on this 12 day of June, 2019




Notary Public
My Commission expires: 1/31/2023

Resume of Benjamin C. Halama

**Interim Director of
Revenue Requirements North**

**Xcel Energy Services Inc.
414 Nicollet Mall
Minneapolis, MN 55401**

Current Responsibilities

Since September 2018, I have worked in the Revenue Requirements – North department. In this position, I prepare and present cost of service studies, revenue requirement determinations, and jurisdictional annual reports for the electric and gas operations of Northern States Power Company to the Minnesota Public Utilities Commission, the South Dakota Public Utilities Commission, and the North Dakota Public Service Commission.

Energy-Related Employment History

Xcel Energy – Minneapolis, MN

- Interim Director of Revenue Requirements North, September 2018 to Present
- Manager Utility Accounting, May 2015 to August 2018

Education

University of Wisconsin at Eau Claire, May 2002
Bachelor of Science in Accounting

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Northern States Power Company

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Schedule 2 provided with the Not-Public version of the Rebuttal Testimony of Company Witness Benjamin C. Halama provides the full results of a Cost Allocation Analysis based on both demand and energy allocators as well as other system costs which will shift to Minnesota with the addition of the Google load.

Schedule 2 is marked as Not-Public in its entirety. The information therein is consistent with the type of information approved for protection in the Commission's ORDER GRANTING TRADE SECRET PROTECTION, issued March 19, 2019, and its ORDER GRANTING SUPPLEMENTAL TRADE SECRET PROTECTION, issued May 21, 2019 in the above-noted case.

[TRADE SECRET BEGINS

TRADE SECRET ENDS]