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Direct Testimony
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
Heartland Divide Wind II

Case No. PU-20-____
Exhibit____(CJS-1)

Policy

October 29, 2020

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I. INTRODUCTION AND QUALIFICATIONS

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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 Principle 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. 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.

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

2 A. The purpose of my testimony is to provide support for the Company's request
3 for an Advance Determination of Prudence (ADP) for the proposed Power
4 Purchase Agreement (PPA) between the Company and Heartland Divide II
5 Wind, LLC (Seller), to acquire 200 MW in wind energy generation (Heartland
6 Divide II PPA). The Heartland Divide Wind II facility (Facility) will be
7 located in Audubon County, Iowa. In my testimony, I detail the transaction
8 and discuss the policy issues related to the matter, and address the prudence
9 of the Heartland Divide II PPA in support of the Company's ADP
10 Application (Application).

11

12 Q. HOW IS YOUR TESTIMONY STRUCTURED?

13 A. My testimony covers the following topics:

- 14 • Regulatory Matters;
- 15 • Description and Purpose of the Heartland Divide II Facility;
- 16 • Prudence of the Heartland Divide PPA; and
- 17 • Presentation of Witnesses.

18

19 **II. REGULATORY MATTERS**

20

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

23 A. North Dakota Century Code (N.D.C.C.) section 49-05-16 allows a public
24 utility to seek an ADP from the Commission at the utility's discretion.
25 However, pursuant to the Settlement Agreement in Case No. PU-07-776, the

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1 Company is obligated to file an Application for an ADP for its acquisition of
2 generating resources above 50 MW.¹ Additionally, under the Revised Second
3 Amended Comprehensive Settlement Agreement in Case No. PU-12-813, the
4 Company requires an ADP for all PPAs over 50 MW before such costs can
5 be included for recovery in the Company's Fuel Cost Recovery (FCR) rider.²
6 In Case No. PU-12-59, Xcel Energy committed to filing its ADP applications
7 within 14 days of seeking similar approvals in Minnesota.³

8
9 Q. IS THE COMPANY MEETING NORTH DAKOTA FILING REQUIREMENTS WITH
10 THIS APPLICATION AND SUPPORTING TESTIMONY?

11 A. Yes. This Application complies with the requirements of N.D.C.C. § 49-05-
12 16 and the Settlement Agreements in Case Nos. PU-07-776 and PU-12-813.
13 Additionally, in accordance with our commitment in Case No. PU-12-59, the
14 Company is submitting this Application on the same day that it files a similar
15 application for approval of the Heartland Divide II PPA in Minnesota.
16 Finally, the Application and supporting testimony demonstrate the prudence
17 of the Company's acquisition of the facility.

¹ *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).

² *N. States Power Co. Elec. Rate Increase Application*, Case No. PU-12-813, ORDER ADOPTING SETTLEMENT at 10 of attached Second Amended Comprehensive Settlement Agreement (Feb. 26, 2014).

³ *N. States Power Co. Advance Prudence – Geronimo Wind Application*, Case No. PU-12-59, LETTER OF COMMITMENT (Nov. 5, 2012).

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**III. DESCRIPTION AND PURPOSE OF THE
HEARTLAND DIVIDE II PPA**

A. Project Background and Description

Q. PLEASE DESCRIBE THE PROPOSED HEARTLAND DIVIDE II PROJECT.

A. The Heartland Divide Wind II Project will be a 200 MW wind facility located in Audubon County, Iowa with a targeted Commercial Operation Date (COD) of December 31, 2021 and a PPA term of 25 years. The Project will interconnect to the Midcontinent Independent System Operator Inc. (MISO) system at MidAmerican Energy's Fallows Avenue 345 kV substation, located in Adair County, Iowa. This area is in MISO's Local Resource Zone 3. The Project will consist of [TRADE SECRET BEGINS . . .

. . . TRADE
SECRET ENDS].

B. Need for Heartland Divide II PP

Q. WHY IS THE COMPANY PROPOSING TO ADD THE HEARTLAND DIVIDE II PPA TO THE NSP SYSTEM?

A. The proposed Heartland Divide II PPA is the result of the Company's solicitation of a wind project to support our Retail Electric Service Agreement with Honeycrisp LLC (an affiliate of Google LLC) for a planned data center in Becker, Minnesota (Honeycrisp LLC ESA).

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1 Q. PLEASE DESCRIBE THE HONEYCRISP LLC ESA.

2 A. In 2019, the Company announced it had reached an agreement with
3 Honeycrisp LLC to develop a data center campus at the Company's Sherco
4 site in Sherburne County, Minnesota. To support this economic development
5 project, the Company and Honeycrisp executed a Retail Electric Service
6 Agreement to serve the planned data center. As presented by the Company in
7 Case No. PU-18-430, a critical piece of inducing Honeycrisp to invest in the
8 data center is a commitment by the Company to procure sufficient
9 incremental renewable generation to match the data center site's expected
10 annual energy use. Practically, this will be demonstrated by retiring Renewable
11 Energy Credits (RECs) in amounts equal to the site's annual energy use. Prior
12 to this new load being realized on our system, the Company can "bank" RECs
13 for the electricity generated, with the opportunity to later use the banked
14 RECs to offset future demand from the data center.

15

16 Q. WHY IS HEARTLAND DIVIDE II NEEDED TO SUPPORT THE HONEYCRISP LLC
17 ESA?

18 A. We estimated, at the time we signed the Honeycrisp LLC ESA, that the
19 Company would need to procure 300 MW of incremental wind generation to
20 meet its initial renewable energy obligations under the Honeycrisp LLC ESA.
21 In December 2019, the Commission approved an ADP for Dakota Range III
22 (Case No. PU-18-430), which will provide the first 150 MW of energy needed
23 for the data center. The Heartland Divide II PPA will provide the remaining
24 150 MW of wind energy needed to serve the anticipated data center load.

25

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1 Q. WILL THE HONEYCRISP LLC ESA BENEFIT NSP CUSTOMERS?

2 A. Yes. The Heartland Divide II PPA is necessary for supporting the data center,
3 which, as a large load with a high capacity factor, should provide significant
4 benefits to all NSP customers, including North Dakota customers. These
5 benefits accrue by increasing overall system load and thereby creating more
6 energy sales which should lower rates, or mitigate rate increases. For our
7 North Dakota customers, these benefits accrue through the increasing load in
8 Minnesota shifting system costs from North Dakota to Minnesota by
9 changing the ratios by which costs are allocated. But even if the data center
10 were to not need all of the electricity produced by the Heartland Divide II
11 wind facility, this PPA would still benefit customers as a system resource,
12 because the fixed energy pricing from this PPA will lower the Company's
13 overall costs resulting in lower costs for customers.

14

15 Q. HOW WILL THE REMAINING 50 MW OF THE HEARTLAND DIVIDE II PROJECT
16 BE ALLOCATED?

17 A. The remaining 50 MW provided under the Heartland Divide II PPA will be
18 assigned to the Renewable*Connect program in Minnesota, and as a result the
19 energy costs will be borne directly by participants in that program. The
20 Company began offering the Renewable*Connect pilot in 2017 to meet
21 customer demand for a voluntary green tariff, consistent with Minnesota's
22 Renewable and High-Efficiency Rate Options statute (Minn. Stat. §
23 216B.169). The Company has a fully-subscribed waiting list for the
24 Renewable*Connect program, and has therefore proposed to expand it in
25 Minnesota. Because the Renewable*Connect program is Minnesota based,

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1 and energy from the 50 MW of Heartland Divide will not be allocated to our
2 North Dakota customers, we are not seeking an ADP for this portion of the
3 project pursuant to the Settlement Agreement in Case No. PU-07-776.⁴
4

5 Q. HOW WILL THE COSTS AND ENERGY OF THE HEARTLAND DIVIDE II PROJECT
6 BE ALLOCATED?

7 A. The Company will allocate 75 percent of the costs and energy of the Heartland
8 Divide II PPA to serving the Honeycrisp LLC ESA load or the NSP System
9 prior to the data center going into service, with the remaining 25 percent of
10 the costs and energy allocated to the Renewable*Connect program. Each
11 month, our commercial accounting department will determine the level of
12 production of the Heartland Divide II facility and allocate 25 percent to
13 Renewable*Connect. The North Dakota portion of the remaining 75 percent
14 will be recovered through the FCR. This accounting will be presented in the
15 Company's FCR filings, similar to the Company's current practice for the
16 Odell Wind Project.
17

18 **C. Project Selection Process**

19 Q. HOW DID THE COMPANY SELECT THE HEARTLAND DIVIDE II PROJECT?

20 A. The Company and Seller agreed upon the Heartland Divide II PPA after a
21 targeted solicitation and contract negotiation process that was initiated by the
22 Company in 2019 to meet our obligations under the Honeycrisp LLC ESA.

⁴ *N. States Power Co. Elec. Rate Increase Application*, Case No. PU-07-776, ORDER ADOPTING SETTLEMENT AGREEMENT at 6 of attached Settlement Agreement (Dec. 31, 2008).

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1 We encountered significant challenges in obtaining a final PPA, in part due to
2 the state of the MISO generator interconnection queue and Definitive
3 Planning Process (DPP) studies. MISO completes DPP Studies in order to
4 identify interconnection upgrades required for a project to interconnect, along
5 with the estimated costs.

6
7 Q. PLEASE ELABORATE ON THESE MISO INTERCONNECTION ISSUES.

8 A. As the Company has discussed in other proceedings before the Commission,
9 MISO's generator interconnection queue study process continues to be
10 oversubscribed, behind schedule, and – in particular with respect to study
11 coordination required by the seam with Southwest Power Pool (SPP) – studies
12 often are not completed on time. Further, when studies are completed, new
13 wind generation resources are often assigned high transmission upgrade costs
14 and, as a result, they may withdraw from the queue entirely.

15
16 Q. HOW DID THE COMPANY MITIGATE THESE INTERCONNECTION ISSUES IN ITS
17 WIND SOLICITATION?

18 A. The Company conducted a targeted solicitation of resource options available
19 in MISO Local Resource Zones 1 and 3 that had – or that we thought could
20 soon have – transmission interconnection cost certainty. We identified two
21 projects that we believed could meet these requirements, and of those,
22 Heartland Divide Wind – located in central Iowa, which is in MISO Zone 3 –
23 provided a bid and engaged in negotiations with the Company for a PPA. The
24 result of these negotiations is the PPA presented to the Commission in the
25 Company's Application.

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Q. HOW DID TRANSMISSION INTERCONNECTION COST CERTAINTY PLAY INTO THE COMPANY'S SELECTION OF HEARTLAND DIVIDE II?

A. Transmission cost certainty, along with price, was a major driver of our selection of Heartland Divide II. As projects continue to withdraw from the interconnection queue, we continue to anticipate challenges in our ability to procure greenfield projects in the near term, particularly in the timeframe required for us to fulfill our specific customer program needs. There are two key reasons for this: 1) DPP studies are routinely delayed, and 2) projects are often assigned such high interconnection upgrade costs that they are unable to execute and deliver on PPAs with renewable energy buyers, like the Company.

In our 2019 solicitation, negotiations with several potential sellers were unsuccessful or projects withdrew due to an inability to obtain interconnection rights without a significant increase to the PPA price. As a result of these transmission cost issues, the purchase of 200 MW of new wind generation from Heartland Divide Wind II likely represents one of the last opportunities for incremental wind generation we can pursue in the near future to meet our obligations under the Honeycrisp LLC ESA.

Q. WILL THE COMPANY'S ACQUISITION OF THE PROJECT BENEFIT NORTH DAKOTA CUSTOMERS?

A. Yes. As discussed further in Company witness Ms. Farah Mandich's Direct Testimony, the Company estimates the savings to customers from adding

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1 Heartland Divide II as a system resource to be \$97.4 million on a present value
2 of revenue requirement (PVRR) basis over the 25-year term of the PPA, when
3 compared with the expansion plan in our most recently-filed Integrated
4 Resource Plan (IRP) Supplement (Case No. PU-19-220). Because the
5 Heartland Divide II PPA pricing displaces higher cost energy in the near term,
6 and is below our system average cost of fuel in the long term, the Project will
7 provide savings to consumers even if the data center load does not match our
8 growth estimates.

9
10 **D. Terms of the Heartland Divide II PPA**

11 Q. PLEASE DESCRIBE THE TERMS OF THE HEARTLAND DIVIDE II PPA

12 A. Under the Heartland Divide II PPA, the Company agrees to purchase energy
13 from the Project, which is estimated to be approximately [**TRADE SECRET**
14 **BEGINS** . . . **TRADE SECRET ENDS**] at a
15 price [**TRADE SECRET BEGINS**
16 . . . **TRADE SECRET ENDS**].

17
18 Q. AT THIS CONTRACT PRICE, WHAT IS THE LEVELIZED COST OF ENERGY OVER
19 THE LIFE OF THE PPA?

20 A. At the agreed upon price of energy, the levelized cost of energy over the 25-
21 year term of the Heartland Divide II PPA is [**TRADE SECRET BEGINS**
22 **.** . . . **TRADE SECRET ENDS**].

23

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1 Q. IS THIS A REASONABLE PRICE FOR A GREENFIELD WIND FACILITY?

2 A. Yes. As noted above, Heartland Divide II was the only project at the end of
3 our wind solicitation process that had interconnection and transmission cost
4 certainty—other projects were forced to drop out due to high study or
5 upgrade costs. Given the considerable uncertainty associated with greenfield
6 wind projects in MISO, the Heartland Divide II PPA provides a competitive
7 price point.

8

9 Q. IS THE HEARTLAND DIVIDE II PPA LEAST COST?

10 A. Yes. The Heartland Divide II PPA will benefit North Dakota customers
11 because the Company will purchase power under the PPA at a low price,
12 displacing higher cost energy on our system in the near term. In the longer
13 term, the PPA's prices are below our forecasted system average costs, thereby
14 lowering average fuel and purchased power costs on the Company's system.

15

16 Q. WHAT IS THE ANTICIPATED COMMERCIAL OPERATION DATE (COD) FOR
17 HEARTLAND DIVIDE II?

18 A. The current target COD is December 31, 2021. The Company is not obligated
19 to accept a COD prior to **[TRADE SECRET BEGINS . . .**

20 **. . . TRADE SECRET ENDS]**. If the Seller fails to achieve the target
21 COD, they are required to pay the Company Liquidated Delay Damages of
22 **[TRADE SECRET BEGINS TRADE SECRET ENDS]**
23 per day in lieu of actual damages.

24

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1 Q. PLEASE DESCRIBE ANY CURTAILMENT PROVISIONS IN THE PPA.

2 A. The Company will be the Market Participant for this Project. We will schedule
3 the Project into MISO and initiate – or respond to – MISO direction for
4 curtailments. The PPA has no compensable curtailment provisions and
5 neither Seller nor Company may curtail the Project for economic reasons.
6 Seller may incur penalties if curtailments are caused by Seller’s failure to
7 perform, under parameters outlined in the PPA and First Amendment to the
8 PPA.

9

10 Q. WILL THE COMPANY BE ASSIGNED THE RECS ASSOCIATED WITH THE
11 HEARTLAND DIVIDE II PROJECT?

12 A. Yes. Although priced as an energy contract, the Company will be assigned all
13 energy, capacity, and RECs associated with the Project.

14

15 Q. HOW WILL THE COMPANY DISTRIBUTE THE RECS GENERATED BY THE
16 PROJECT?

17 A. As I discussed earlier, the Company will retire a share of the RECs associated
18 with the Project in an amount coincident with the data center load. For this
19 reason, the Company will not allocate the RECs generated by the Project to
20 specific jurisdictions.

21

22 Q. HOW WILL THE COMPANY TREAT RECS GENERATED BY THE PROJECT BEFORE
23 THE DATA CENTER LOAD MATERIALIZES?

24 A. In the Honeycrisp LLC ESA, the Company negotiated the flexibility to
25 procure renewable resources early in the term that will allow the Company to

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1 “bank” the RECs and retire them later in the term of the Honeycrisp LLC
2 ESA.

3
4 Q. WILL NORTH DAKOTA CUSTOMERS BE COMPENSATED FOR THEIR SHARE OF
5 THE RECS ?

6 A. No. Although we are proposing Heartland Divide II as a system resource, we
7 are proposing that it serve the system with energy only and we will not allocate
8 RECs to specific jurisdictions. Like Dakota Range III, this resource is being
9 procured to meet our obligations under the Honeycrisp LLC ESA, as an
10 inducement for Honeycrisp to locate a data center campus in the Company’s
11 exclusive service territory. It is not being procured to serve North Dakota or
12 any particular jurisdiction, but rather so that the Company may meet its
13 obligations under the Honeycrisp LLC ESA. Thus the RECs are dedicated to
14 the specific purpose agreed to in the Honeycrisp LLC ESA. However, North
15 Dakota customers will still receive benefits even without receiving RECs
16 because the Heartland Divide II PPA will lower the Company’s overall costs
17 and the data center load will result in more system costs being shifted to
18 Minnesota under the demand and energy allocators.

19
20 Q. THE COMMISSION IMPOSED A CONDITION REQUIRING THE COMPANY TO
21 COMPENSATE NORTH DAKOTA CUSTOMERS FOR THEIR SHARE OF THE
22 DAKOTA RANGE III RECS. DOES THE COMPANY SUPPORT A SIMILAR
23 CONDITION HERE?

24 A. No. As stated by Company witness Ms. Bria Shea in her Rebuttal Testimony
25 in Case No. PU-18-430, the Company respectfully disagrees with this

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1 condition because it is inconsistent with the purpose of acquiring Heartland
2 Divide II. The Company would not be acquiring 150 MW from Heartland
3 Divide II if not for the Honeycrisp LLC ESA, and the RECs are dedicated to
4 the specific purpose of meeting our obligations under the ESA.

5
6 Q. WHAT WILL HAPPEN TO THE RECs IF THE DATA CENTER LOAD DOES NOT
7 COME ONLINE OR IS OTHERWISE SMALLER THAN EXPECTED?

8 A. If the data center load does not materialize as projected and the Company's
9 obligations under the Honeycrisp LLC ESA are terminated, the Company will
10 allocate the Heartland Divide II RECs to all NSP System customers consistent
11 with traditional cost causation principles. Specifically, pursuant to
12 Commission Orders in Case Nos. PU-10-19 and PU-12-813, the Company
13 will return 100% of the net revenue from the sale of North Dakota customers'
14 share of the RECs, and pass those revenues back to customers through the
15 FCR.

16
17 Q. HOW WILL THE COMPANY COMPLY WITH THE HONEYCRISP LLC ESA IF THE
18 DATA CENTER LOAD IS LARGER THAN EXPECTED?

19 A. If the data center load is greater than the resources procured to provide RECs
20 for it (Dakota Range III and Heartland Divide II), the Company plans to use
21 RECs already in the Company's possession to satisfy its commitments in the
22 Honeycrisp LLC ESA, while it procures additional resources to meet its
23 obligations. Thus there would be no incremental costs to customers for these
24 "Cover RECs." If the Company were forced to purchase additional RECs to

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1 meet its obligations, these costs should be borne by the entire NSP system,
2 because the data center load is system load that benefits all NSP customers.

3
4 Q. DOES THE COMPANY SUPPORT A CONDITION ON APPROVAL—SIMILAR TO
5 WHAT WAS APPROVED IN CASE NO. PU-18-430—REQUIRING THE COMPANY
6 TO HOLD NORTH DAKOTA CUSTOMERS HARMLESS FOR THE COSTS OF ANY
7 “COVER RECS” THAT MAY BE NEEDED?

8 A. No. As Company witness Ms. Shea stated in her Rebuttal Testimony in Case
9 No. PU-18-430 (Dakota Range III), the Company does not agree with
10 imposing such a condition because the data center load benefits all NSP
11 System customers, thus all customers should pay their share of the costs of
12 bringing the load online. Ultimately, as I just discussed, this condition is
13 unnecessary because the cost of any “Cover RECs” is likely to be zero.

14
15 **IV. PRUDENCE OF THE**
16 **HEARTLAND DIVIDE II PPA**

17
18 Q. IS THE PROPOSED HEARTLAND DIVIDE II PPA PRUDENT?

19 A. Yes. The Commission has historically stated that its primary considerations in
20 assessing the prudence of resource additions are that they be needed and least
21 cost. With respect to need, Heartland Divide II is necessary for facilitating
22 the addition of the data center load to the NSP System, which itself should
23 provide significant benefits to the Company’s customers. The Heartland
24 Divide II PPA is also a least-cost resource, as the attractive price of energy
25 under the PPA will lower the Company’s overall system costs, benefitting

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1 customers. Additionally, the Heartland Divide II project was the only viable
2 project identified in our solicitation that was available and had transmission
3 interconnection cost certainty.

4
5 Q. HOW DO THE DEMAND AND ENERGY ALLOCATOR SHIFTS RESULTING FROM
6 THE ADDITION OF THE DATA CENTER LOAD BENEFIT NORTH DAKOTA
7 CUSTOMERS?

8 A. Because the data center load will be based in Minnesota, North Dakota
9 customers will benefit from the impact that increasing Minnesota load has on
10 the allocation of NSP System costs. The addition of this large load will result
11 in shifts in the percentages of system costs paid for by North Dakota under
12 the 12-month coincident peak (12CP) demand allocator and the energy
13 allocator. Notably, even if the data center does not go into service and the
14 demand and energy allocator benefits do not materialize, the Heartland Divide
15 II PPA is still prudent in light of the low cost energy it is providing to the
16 system, thereby generating savings for all NSP customers.

17
18 Q. IF THE COMMISSION DECLINED TO MAKE A DETERMINATION OF PRUDENCE
19 WITH RESPECT TO THE HEARTLAND DIVIDE II PPA, WOULD NORTH DAKOTA
20 CUSTOMERS STILL BENEFIT FROM THE SHIFT IN DEMAND AND ENERGY
21 ALLOCATION?

22 A. Yes, however, the Company believes it would be inequitable for our North
23 Dakota customers to enjoy the benefits of the increased load associated with
24 the data center through the demand and energy allocators if North Dakota
25 customers are not also paying the resource costs needed to support it.

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2 Q. IF THE DATA CENTER DOES NOT USE THE ENTIRETY OF HEARTLAND DIVIDE
3 II'S WIND GENERATION, WOULD CUSTOMERS STILL BENEFIT FROM THE PPA?

4 A. Yes. Notwithstanding the need for Heartland Divide II's wind generation to
5 support the data center, the Company's economic analysis of the PPA,
6 discussed in detail in Ms. Mandich's Direct Testimony, shows that the addition
7 of the resource will lower the Company's overall system costs, supporting the
8 cost-effectiveness of the resource addition. The economical pricing of the
9 wind alone supports it as a prudent resource addition.

10

11 Q. ASIDE FROM THE COST-EFFECTIVENESS AND NEED FOR THE HEARTLAND
12 DIVIDE II PPA, ARE THERE OTHER INDICATIONS THAT THE COMPANY'S
13 PROPOSED RESOURCE ADDITION IS PRUDENT?

14 A. Yes. Aside from the cost-effectiveness and need for the transaction, the PPA
15 is structured to protect the interests of customers through several safeguards,
16 including specific milestone dates (and penalties for failing to meet these
17 dates), default provisions, security fund requirements, and insurance
18 requirements.

19

20

V. PRESENTATION OF WITNESSES

21

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

23 A. In addition to my Policy Testimony, the Company sponsors the following
24 witness:

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- 1 • Ms. Farah Mandich details the Company’s economic analyses and the
2 expected cost savings the Company expects to achieve by adding the
3 Heartland Divide II PPA.

4

5

VI. CONCLUSION

6

7 Q. PLEASE SUMMARIZE YOUR CONCLUSIONS.

8 A. For the reasons stated above, the Company’s addition of the Heartland Divide
9 II PPA is prudent and should be approved without conditions.

10

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

12 A. Yes, it does.

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF NORTH DAKOTA

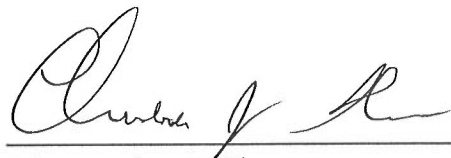
NORTHERN STATES POWER COMPANY
ADVANCE DETERMINATION OF PRUDENCE --
HEARTLAND DIVIDE WIND II

CASE NO. PU-20-__

VERIFICATION


STATE OF MINNESOTA)
)SS.
COUNTY OF HENNEPIN

Christopher J. Shaw, being first duly sworn on oath, deposes and says that he is the Manager of Regulatory Policy 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 20 day of October, 2020



Notary Public
My Commission expires: January 31, 2025



Christopher J. Shaw
Manager, Regulatory Policy
401 Nicollet Mall, 7th Floor
Minneapolis, Minnesota 55401
612-330-7974
christopher.j.shaw@xcelenergy.com

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.

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