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Direct Testimony
Bria E. Shea

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 98.9 MW Mower County Wind Facility

Case No. PU-19-____
Exhibit____(BES-1)

Policy

August 30, 2019

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I. INTRODUCTION AND QUALIFICATIONS

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Q. PLEASE STATE YOUR NAME AND TITLE.

A. My name is Bria E. Shea. I am the Director, Regulatory and Strategic Analysis, 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 2009, in the regulatory and resource planning areas, and have been in my current role since February of 2017. I currently oversee the Company’s regulatory strategy for resource planning and resource acquisitions for the NSP System. This includes the development, preparation, and regulatory support of the Company’s resource plans and resource acquisition filings in Minnesota, North Dakota, and South Dakota, as well as assisting the Company in making reasonable and prudent acquisition decisions for electric generation resources. I am also responsible for the regulatory strategy and filings for grid modernization and distribution planning, as well as working with stakeholders in the Upper Midwest.

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

A. The purpose of my testimony is to provide support for the Company’s request for an Advance Determination of Prudence (ADP) for the Company to acquire, own and operate the repowered Mower County Wind Facility (Mower County or Project). The Project is a 98.9 megawatt (MW) wind facility located in Mower County in Grand Meadow, Minnesota and

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1 currently owned by ESI Energy, LLC, an affiliate of FPL Energy Mower
2 County, LLC (Seller). In my testimony, I detail the transaction and discuss
3 the policy issues related to the matter and the prudence of the Company's
4 request in support of the Company's ADP Application (Application).

5
6 Q. HOW IS YOUR TESTIMONY STRUCTURED?

7 A. My testimony covers the following topics:

- 8 • Regulatory Matters;
- 9 • Description and Purpose of the Mower County Wind Facility;
- 10 • Prudence of the Mower County Wind Facility acquisition; and
- 11 • Presentation of Witnesses.

12
13 **II. REGULATORY MATTERS**

14
15 Q. PLEASE DESCRIBE THE COMPANY'S REQUIREMENTS WITH RESPECT TO THIS
16 ADP.

17 A. North Dakota Century Code (N.D.C.C.) section 49-05-16 allows a public
18 utility to seek an ADP from the Commission at the utility's discretion.
19 However, pursuant to the Settlement Agreement in Case No. PU-07-776,
20 the Company is obligated to file an Application for an ADP for its
21 acquisition of generating resources above 50 MW.¹ In Case No. PU-12-59,
22 Xcel Energy committed to filing its ADP applications within 14 days of
23 seeking similar approvals in Minnesota.²

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

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1 Q. IS THE COMPANY MEETING NORTH DAKOTA FILING REQUIREMENTS WITH
2 THIS APPLICATION AND SUPPORTING TESTIMONY?

3 A. Yes. This Application complies with the requirements of N.D.C.C. § 49-05-
4 16 and the Settlement Agreement in Case No. PU-07-776. Additionally, in
5 accordance with our commitment in Case No. PU-12-59, the Company is
6 submitting the Application within 14 days of filing a petition seeking
7 approval for the Mower County Wind Facility in Minnesota, which occurred
8 on August 30, 2019. Finally, the Application and supporting testimony
9 demonstrate the prudence of the Company's acquisition of the facility.

10

11

**III. DESCRIPTION AND PURPOSE OF
MOWER COUNTY WIND FACILITY**

12

13

14 **A. Project Background and Description**

15 Q. PLEASE DESCRIBE THE PROPOSED MOWER COUNTY WIND FACILITY
16 PROJECT.

17 A. In late 2018, Seller approached the Company expressing interest in
18 repowering and selling the existing 98.9 MW Mower County Wind Facility
19 (Facility) located in Mower County, Minnesota. Recognizing the
20 advancements in technology that have taken place since the Facility was first
21 constructed as well as the value of the interconnection rights held by the
22 Facility, the Company agreed to move forward with the proposed
23 transaction.

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1 Q. WHAT WILL THE REPOWERING ENTAIL?

2 A. As part of the repowering, Seller will repower each of the Facility's existing
3 43 2.3 MW wind turbine generators with *[TRADE SECRET BEGINS*

4

5

6 *TRADE*
7 *SECRET ENDS]*. The nameplate capacity of the repowered Facility will be
8 98.9 MW, with an expected capacity factor of *[TRADE SECRET*
9 *BEGINS* *TRADE SECRET ENDS]*. The repowered

10 Facility will be placed in service prior to the end of 2020 and will therefore
11 quality for 100 percent of the existing federal renewable electricity
12 Production Tax Credit (PTC). The repowering will allow for more efficient
13 energy generation and extend the useful life of the Facility for an additional
14 25 years beyond 2020, consistent with industry and Company experience.

14

15 Q. WILL THE COMPANY ACQUIRE THE FACILITY FOLLOWING THE COMPLETION
16 OF THE REPOWERING?

17 A. Yes. Following the completion of the repowering, the Company will acquire
18 the Facility from Seller pursuant to a Purchase and Sale Agreement (PSA)
19 which has already been negotiated and executed by the parties. This
20 transaction structure shifts the construction risk during repowering to the
21 developer.

22

23 Q. IS THE MOWER COUNTY WIND FACILITY ALREADY SERVING THE NSP
24 SYSTEM?

25 A. Yes. The Company originally entered into a Power Purchase Agreement
26 (PPA) with Seller on November 18, 2005. The Facility has been continually

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1 operating since its Commercial Operation Date of December 3, 2006, and
2 the 20-year term of the existing PPA will expire on December 2, 2026.
3 Under the PPA, the Company purchases all of the current output of the
4 Facility. The PPA has been included in and recovered through the
5 Company's Fuel Cost Rider (FCR) since purchases commenced.
6

7 Q. WHY DID THE COMPANY ORIGINALLY ENTER INTO THE MOWER COUNTY
8 FACILITY PPA?

9 A. The Company entered into the PPA following an All-Source bidding process
10 initiated in 2001, as required by the Minnesota Public Utilities Commission's
11 order approving the Company's 2000 Minnesota Resource Plan (MPUC
12 Docket No. E002/M-00-787). As part of this process, the Company issued
13 a request for proposals (RFP) seeking 1,000 MW of capacity during the
14 2005-2009 period from a variety of resource types. I should note that the
15 RFP, and the resulting PPA with Seller, were not a product of Minnesota's
16 Renewable Energy Standard. However, Minnesota law does provide a
17 preference for renewable energy facilities in resource planning, at Minn. Stat.
18 § 216B.2422, Subd. 4.
19

20 Q. IS REPOWERING OF THE FACILITY PERMITTED UNDER THE CURRENT PPA?

21 A. Yes. The Company has concluded that nothing in the existing PPA
22 precludes the Seller from repowering the Project to continue meeting its
23 contractual requirements, so long as the repowering project leaves the
24 Facility within the designated nameplate capacity and does not result in any
25 material change in Xcel Energy's obligations under the PPA. Section 3.3 of
26 the PPA requires the Seller to maintain the Facility for all 20 years of the

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1 Agreement term according to “Good Utility Practices,” which, as defined in
2 PPA Section 1.4, includes taking reasonable steps to perform preventive,
3 routine, and non-routine maintenance and repairs to ensure reliable, long-
4 term, and safe operation. Section 5.4 of the PPA requires the Seller to meet
5 a Peak Production Availability requirement and use commercially reasonable
6 efforts to maximize the amount of net energy produced as well as minimize
7 forced outages.

8
9 Q. WILL THE COMPANY’S ACQUISITION OF THE PROJECT BENEFIT NORTH
10 DAKOTA CUSTOMERS?

11 A. Yes. As discussed further in Company witness Mr. Philip Joseph “P.J.”
12 Martin’s testimony, the Company estimates the savings to customers from
13 the repower and purchase of the Project to be \$48-49 million on a present
14 value of revenue requirement (PVRR) basis over the 25-year life of the
15 Facility, when compared with continuation and replacement of the existing
16 PPA. The Company’s acquisition of the repowered Facility will keep this
17 cost-effective, renewable resource on the NSP System at a lower cost than
18 replacing the existing PPA with a generic wind PPA.

19
20 Q. WHY DOES THE COMPANY ASSUME THAT A GENERIC WIND PPA WILL
21 REPLACE THE GENERATION OF THE EXISTING PPA UPON EXPIRATION OF
22 THAT AGREEMENT?

23 A. As discussed further below, the Preferred Plan in the Company’s recently-
24 filed Integrated Resource Plan (IRP) reflects an approach for integrating
25 renewables whereby the Company will endeavor to remain at or above our
26 current level of renewable generation on the NSP System. This is an

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1 important element in the Company’s plan to achieve and maintain our long-
2 term carbon-reduction goals and, ultimately, realize our vision of delivering
3 carbon-free energy by 2050. Thus, the IRP assumes that new wind
4 generation will replace existing wind facilities that are retiring or reaching the
5 end of their contract terms, including the Mower County PPA. We refer to
6 this policy in the IRP as our “no going back” approach.

7

8 **B. Terms of the Purchase and Sale Agreement**

9 Q. PLEASE DESCRIBE THE TERMS OF THE PURCHASE AND SALE AGREEMENT.

10 A. The Company executed the PSA for the Facility on June 17, 2019 with ESI
11 Energy, LLC (Seller), an affiliate of NextEra, which owns 100 percent of the
12 membership interests of FPL Energy Mower County, LLC. The purchase
13 price of the Facility is *[TRADE SECRET BEGINS*

14

15

16

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18

TRADE

19 *SECRET ENDS]*. In the event the Company successfully completes the
20 purchase, the existing PPA terminates.

21

22 Q. PLEASE EXPLAIN THE MEANING OF THE CAPITALIZED PSA TERMS
23 DESCRIBED ABOVE.

24 A. *[TRADE SECRET BEGINS*

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TRADE SECRET ENDS].

Q. AT THIS PURCHASE PRICE, WHAT IS THE LEVELIZED COST OF ENERGY OVER THE LIFE OF THE FACILITY?

A. At the agreed upon purchase price, the levelized cost of energy over the expected 25-year life of the repowered Facility is [*TRADE SECRET BEGINS* *TRADE SECRET ENDS]*, which is significantly lower than the modeled [*TRADE SECRET BEGINS* *TRADE SECRET ENDS]* levelized cost of the existing PPA and replacement with generic wind in the years after the existing PPA expires.

Q. IS THIS A REASONABLE PRICE FOR THIS TYPE OF REPOWERED FACILITY?

A. Yes. As discussed in detail below, under our renewables strategy in our IRP Preferred Plan it is more cost effective to repower and purchase the Facility than to pursue greenfield renewable alternatives, due in part to the valuable interconnection rights held by the Facility.

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1 Q. WILL THE COMPANY REQUIRE AN ACQUISITION ADJUSTMENT FOR THE
2 PURCHASE OF THE FACILITY?

3 A. Yes. Taking into consideration estimated remaining project costs and
4 additional assets to be acquired, at December 1, 2020, the estimated net
5 book value of electric plant in service (including estimated repowering
6 expenditures) for the Project is *[TRADE SECRET BEGINS*
7 *TRADE SECRET ENDS]*, and the accumulated provision for
8 depreciation of electric utility plant is *[TRADE SECRET BEGINS*
9 *TRADE SECRET ENDS]*. As the purchase price is in
10 excess of the net book value, an acquisition adjustment of *[TRADE*
11 *SECRET BEGINS* *TRADE SECRET ENDS]* will also be
12 recognized, which we will request to include in rate base with a full return
13 over the same useful life as the plant investment.

14
15 Q. HOW WILL THE COMPANY PROCEED IF THE COMMISSION DOES NOT
16 APPROVE THE ADP?

17 A. The Company and Seller have also executed a First Amendment to the
18 existing PPA (Amendment), which will take effect in the event the
19 acquisition does not receive the necessary regulatory approvals. This
20 Amendment does not extend the term of the current PPA nor change the
21 pricing terms, but it modernizes the PPA by including enhanced customer
22 protections and other updates consistent with current power purchase
23 contracts. In particular, because the repowered Facility will have increased
24 energy production beyond what was originally bargained for in the PPA, the
25 Amendment provides for partial refunds for excess energy production from
26 the repowered Facility. Additionally, the Amendment requires Seller to

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1 provide NSP with a right of first offer notice if Seller plans to sell the Facility
2 and a pending facility transaction notice in the event of a transaction that
3 does not trigger the right of first offer provision. In the event that NSP
4 successfully completes the purchase of the repowered wind facility, the
5 existing PPA and the Amendment would be terminated.

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9

**IV. PRUDENCE OF THE
MOWER COUNTY WIND FACILITY**

10 Q. IS THE PROPOSED ACQUISITION OF THE MOWER COUNTY WIND FACILITY
11 PRUDENT?

12 A. Yes. The Company's modeling indicates that customers will benefit from
13 acquisition of the Facility because it will create cost savings of approximately
14 \$48-49 million on a PVRR basis when compared with replacement of the
15 existing PPA with a generic wind PPA. Thus, the Project is least cost when
16 compared with replacement with a generic wind PPA, which served as the
17 Base Case for comparison in our modeling. Additionally, ownership of the
18 Facility provides benefits to customers in the form of transmission
19 interconnection rights and mitigating the risk of replacement with a
20 potentially costly PPA when the current PPA expires in 2026.

21

22 Q. PLEASE BRIEFLY EXPLAIN HOW THE COMPANY ANALYZED THE PROPOSED
23 ACQUISITION OF THE FACILITY.

24 A. The Company performed two different analyses to evaluate the PSA's
25 impact to our customers: a pro forma model approach and a traditional
26 analysis using the Strategist resource planning model. Our Strategist

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1 modeling assumes the Company's Preferred Plan in our 2020-2034 Upper
2 Midwest IRP, filed with the Commission on July 1 as Case No. PU-19-220,
3 as the Base Case. The modeling simulates operation of the Base Case system
4 through 2045—the expected lifespan of the repowered Facility—comparing
5 continuation of the existing PPA to scenarios in which the PSA is approved
6 under different market conditions. In the Base Case, the wind energy
7 purchased under the existing PPA is replaced with a generic wind PPA
8 which begins at 38.81/MWh after the contract term ends in December 2026
9 and increases annually, consistent with our IRP Preferred Plan's approach to
10 renewable generation on the NSP System.

11
12 Q. WHAT IS THE COMPANY'S APPROACH TO RENEWABLE GENERATION IN THE
13 IRP PREFERRED PLAN?

14 A key part of the Company's IRP Preferred Plan is our commitment to
15 carbon-free energy, under which the Company will endeavor to not go
16 below the current level of renewable penetration on the NSP System on a
17 production basis. This strategy is a major component in sustaining our
18 progress in integrating substantial amounts of renewable generation and
19 toward meeting our stated goal of reducing our carbon emissions across the
20 Xcel Energy footprint 80 percent below 2005 levels by 2030. As older
21 renewable resources like Mower County reach the end of their useful lives or
22 their PPAs expire, the Preferred Plan replaces these resources with generic
23 wind or solar generation, as applicable. Thus, the Base Case used for our
24 economic analysis assumed replacement of the current PPA with a generic
25 wind facility at the same energy output as the repowered Facility upon the
26 expiration of the existing PPA in 2026. Mr. Martin discusses this approach

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1 and other key assumptions included in the Company's modeling in more
2 detail.

3

4 Q. WHAT ARE THE KEY DRIVERS OF THE SAVINGS SHOWN IN THE COMPANY'S
5 MODELING RESULTS?

6 A. Ultimately, it is cost effective for the Company to acquire the repowered
7 Mower County Facility because the levelized cost of the Facility is lower
8 than the current PPA price and expected costs of a generic wind PPA which
9 would be assumed to replace the Mower County PPA upon its expiration.
10 This is due in part to the expiration of the federal PTC, which will put
11 upward pressure on the price of wind energy for projects that are not placed
12 in service by December 31, 2020. Additionally, the interconnection costs
13 associated with greenfield generation are significant and are not expected to
14 subside any time soon, given the significant and persistent backlog in the
15 MISO interconnection queue. Thus, projects with existing interconnection
16 rights such as Mower County have significant value compared to generic
17 replacements. Mr. Martin discusses the value of these interconnection rights
18 further in his Direct Testimony.

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 • Mr. Philip Joseph “P.J.” Martin details the Company’s economic
2 analyses and the expected cost savings the Company expects to
3 achieve by acquiring the Mower County Wind Facility.

4

5

VI. CONCLUSION

6

7 Q. PLEASE SUMMARIZE YOUR CONCLUSIONS.

8 A. For the reasons stated above, the Company’s acquisition of the Mower
9 County Wind Facility 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

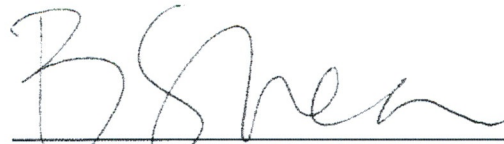
NORTHERN STATES POWER COMPANY
ADVANCE PRUDENCE – ACQUISITION OF
98.9 MW MOWER COUNTY WIND FACILITY

CASE NO. PU-19-_____

VERIFICATION

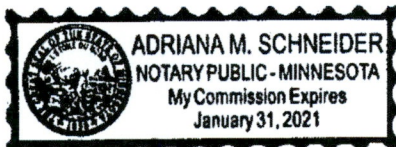
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COUNTY OF HENNEPIN

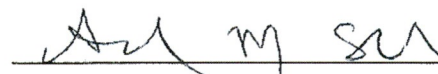
Bria E. Shea, being first duly sworn on oath, deposes and says that she is the Director of Regulatory and Strategic Analysis for Applicant Northern States Power Company, a Minnesota corporation, in the above-captioned matter, that the testimony submitted in the above-captioned matter under her name was prepared under her direction, that she knows the contents thereof, and that the same is true and correct to the best of her knowledge and belief.



Bria E. Shea

Subscribed and sworn to before me on this 28 day of August, 2019





Notary Public
My Commission expires: 1-31-21