

Rebuttal Testimony and Schedule
Aakash H. Chandarana

Before the Public Utilities Commission
of the State of South Dakota

In the Matter of Commission Staff's Request to Investigate
Northern States Power Company d/b/a Xcel Energy's
Proposed Fuel Clause Rider

Docket No. EL16-037
Exhibit____(AHC-2)

Policy

August 8, 2017

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1 **I. INTRODUCTION**

2
3 Q. PLEASE STATE YOUR NAME AND TITLE.

4 A. My name is Aakash H. Chandarana. I am the Regional Vice President for
5 Rates and Regulatory Affairs for Northern States Power Company-
6 Minnesota (NSPM or Xcel Energy or the Company). In this role, I am
7 responsible for NSPM's regulatory filings with the utility commissions in
8 Minnesota, North Dakota, and South Dakota, including proceedings related
9 to rates, resource planning, and service quality filings.

10
11 Q. HAVE YOU PREVIOUSLY PROVIDED TESTIMONY IN THIS PROCEEDING?

12 A. Yes. I filed Direct Testimony on behalf of Northern States Power Company
13 (Xcel Energy or the Company) to provide background on the resources at
14 issue in this proceeding and demonstrate that each such resource should be
15 recovered (or continue to be recovered) from our South Dakota customers
16 through the Fuel Clause Rider (FCR).

17
18 Q. DO YOU HAVE ANY PRELIMINARY REMARKS REGARDING THE STAFF'S
19 TESTIMONY FILED IN THIS PROCEEDING?

20 A. Yes. At the outset, I would like to commend the Staff for their thorough
21 review of the FCR and their willingness to meet with the Company to share
22 information and discuss reforms to the FCR that will foster transparency
23 and spur increased communication between the Company and Staff. I
24 especially appreciate Staff's reconsideration of the Mankato Energy Center
25 and Cannon Falls Power Purchase Agreements (PPAs) and apologize for any
26 confusion our discovery responses may have created.

1 Based on my analysis of the Direct Testimony of Commission Staff
2 witnesses Mr. John Thurber and Ms. Kavita Maini, I believe that the
3 Commission has a complete and thorough record upon which it can make a
4 decision in this case. Consequently, in my Rebuttal Testimony, I offer some
5 thoughts around an alternative path that has emerged from productive
6 discussions with Commission Staff. This collaborative resolution would
7 resolve the issues in this proceeding in a way that addresses the concerns
8 raised by Staff while retaining the integrated nature of the NSP System.

9
10 Q. HOW IS YOUR REBUTTAL TESTIMONY ORGANIZED?

11 A. First, I present the Company's proposal for an alternative path to resolution
12 of this proceeding and the rationale behind it.

13
14 Next, I address Mr. Thurber's proposed FCR reforms and the Company's
15 interest in increasing the transparency of its FCR recovery. I further note
16 our willingness to provide the additional information sought by Mr. Thurber
17 outside of this proceeding in a manner and format useful to the Staff.

18
19 **II. AN ALTERNATIVE PATH TO RESOLUTION**

20
21 Q. WHY IS THE COMPANY PROPOSING AN ALTERNATIVE PATH TO RESOLUTION
22 IN THIS PROCEEDING?

23 A. Based upon our analysis of Mr. Thurber's testimony, we recognize that Staff
24 concerns regarding certain above-market resources on our system are
25 legitimate. As mentioned in my Direct Testimony, we are also concerned,
26 however, that wholesale disallowance of the costs of 26 resources in a single
27 proceeding would call into question the Company's ability to continue to

1 provide service to our South Dakota customers through the integrated NSP
2 System. In discussions with Staff to find ways to resolve this proceeding, we
3 believed that it was important to provide an alternative path that would
4 address Staff concerns while retaining the integrated nature of the NSP
5 System instead of the binary outcomes presented in the Direct Testimony of
6 the Company and Commission Staff.

7
8 Q. FOR CONTEXT, WHAT ARE THE RESOURCES AT ISSUE IN THIS PROCEEDING?

9 A. Exhibit___(AHC-1), Schedules 1, 3, 4, 5 and 6 to my Direct Testimony
10 specifically identify these resources. For context, the resources at issue in
11 this proceeding fall into several categories: (1) Capacity PPAs entered into
12 to meet system-wide capacity needs; (2) Biomass PPAs entered into to meet
13 Minnesota's Biomass Mandate; (3) Community-Based Energy Program (C-
14 BED) PPAs entered into consistent with Minnesota's C-BED statute; (4)
15 Renewable Development Fund (RDF) PPAs entered into to purchase the
16 output of certain projects funded by Minnesota's Renewable Development
17 Fund; (5) Utility Scale Solar PPAs consisting of the Marshall Solar and
18 North Star Solar projects which were entered into to meet the compliance
19 obligations of Minnesota's Solar Energy Standard (SES); and (6) the Aurora
20 Solar PPA which was entered into as a result of Minnesota's Competitive
21 Acquisition Process (CAP).

22
23 Q. CAN YOU PROVIDE A HIGH-LEVEL SUMMARY OF THE PROPOSED
24 ALTERNATIVE PATH RESOLUTION?

25 A. First, we recognize the need for additional transparency around the
26 Company's use of the FCR. We are committed to providing that
27 information in the hope that Commission Staff can rest assured they are

1 always fully informed about the resources flowing through the FCR to South
2 Dakota customers. Second, we recognize the need for further discussion
3 with Staff regarding Aurora given its complex regulatory history and above-
4 market cost. Third, we believe that while Staff raises a number of concerns
5 with the disputed resources, Staff also recognizes these resources provide
6 value to our system and have been for many years, in some cases. Our
7 biomass resources, for example, were part of the agreement to retain our
8 nuclear fleet. The Company has been working to remove these above-
9 market resources from the system and is looking to South Dakota to support
10 its efforts. The Parties have discussed a two-step process in order to work
11 toward a resolution of the resources at issue. In the near-term, the fuel
12 clause suspension would cease and the Company would be permitted to
13 recover these resources through the FCR, subject to refund. Once the near-
14 term solution is put in place, the parties would begin working toward a
15 longer-term solution that identifies a reasonable proxy price for each
16 resource—which would be implemented in the Company’s next electric rate
17 case, along with any refund.

18
19 Q. HOW DOES THE COMPANY’S ALTERNATIVE PATH ADDRESS THE CAPACITY
20 PPAS?

21 A. Commission Staff’s concerns have been addressed regarding these resources
22 and, as Mr. Thurber noted in his Direct Testimony, he recommends no
23 disallowance at this time. Consequently, the Company proposes that it
24 continue to recover the costs of these key System resources.

25
26 Q. CAN YOU PROVIDE MORE DETAIL AROUND YOUR PROPOSED RESOLUTION OF
27 THE BIOMASS PPAS?

1 A. As discussed in my Direct Testimony, the Minnesota Biomass Mandate was
2 a requirement created in exchange for Minnesota legislative authorization to
3 address nuclear fuel storage needs at the Company's nuclear power plants.

4
5 The Company has been recovering the costs of these historical resources
6 since they were placed in-service. Additionally, as discussed in my Direct
7 Testimony, the Company has been undertaking a review of these contracts
8 and has entered into transactions that propose removing these resources
9 from the System. We believe South Dakota supports our efforts to lower
10 overall System costs and sees value in continuing to incent the Company to
11 pursue opportunities to do so.

12
13 Due to the Biomass PPAs direct tie to the benefits provided the entire
14 System through service by the Company's nuclear fleet as well as the fact
15 that at least two of the three at-issue PPAs will be cancelled shortly, the
16 Company is proposing that it be allowed to continue to recover the costs of
17 the Biomass PPAs going back to the start of the suspension period and on a
18 going forward basis. The Company also proposes that it be authorized for
19 deferred accounting for the costs incurred to cancel these PPAs and that the
20 Company be required to propose how to recover these costs in its next
21 electric rate case. The Company is also open to providing further
22 information regarding our proposal to remove these resources from our
23 System in a separate docket.

24
25 Q. PLEASE PROVIDE FURTHER DETAIL ON HOW YOU PROPOSE TO ADDRESS THE
26 AURORA PPA?

1 A. My Direct Testimony describes the circumstances through which this
2 resource was identified and selected, including the Company's initial
3 reluctance to proceed with this project. My Direct Testimony also describes
4 how the Company ultimately recognized and agreed with the Minnesota
5 Public Utility Commission's reasoning regarding the selection of the Aurora
6 PPA to meet a capacity need in the 2017-2019 time-frame. Upon analysis of
7 Ms. Maini's Direct Testimony, the Company recognizes that reasonable
8 minds may differ regarding the prudence of the Aurora PPA.

9

10 Q: IS YOUR PROPOSAL THAT THE SOUTH DAKOTA CUSTOMERS WILL BE
11 REQUIRED TO PAY NOTHING FOR THE AURORA PPA?

12 A: No, although we recognize Staff's reservations with respect to Aurora, South
13 Dakota customers are still receiving the energy and capacity benefits of the
14 generation. Accordingly, we suggest that the Parties work together to
15 identify a reasonable proxy price that South Dakota customers will pay
16 which values both the energy and capacity components.

17

18 Q. CAN YOU PROVIDE MORE DETAIL ON HOW THE ALTERNATIVE PATH
19 PROPOSES TO DEAL WITH THE REMAINING RESOURCES AT ISSUE?

20 A. Given Mr. Thurber's Direct Testimony on the North Star and Marshall
21 PPAs, the C-BED PPAs and the RDF PPAs, we believe a proxy pricing
22 framework is a reasonable way to reach resolution on these resources.
23 Before walking through our proposed framework, we want to acknowledge
24 Staff's disappointment in feeling that the Company's was not transparent in
25 its use of the FCR with respect to the C-BED and RDF resources, in
26 particular. The Company is committed to keeping Staff fully informed going

1 forward and, to that end, will commit to the procedural changes to the FCR
2 recommended by Mr. Thurber in his Direct Testimony.

3
4 . Regarding the framework for dealing with the remaining PPAs, the
5 Company proposes that it continue to be allowed to recover the costs of the
6 C-BED PPAs, the North Star and Marshall Solar PPAs, and the RDF PPAs
7 back to the start of the suspension period, subject to refund. After that
8 near-term solution is put into place, the Company will work with Staff to
9 identify proxy prices for these resources which will be put into place in the
10 Company's next electric rate case, along with any refund.

11
12 Q. DO THE COMPANY AND STAFF NEED TO REACH AGREEMENT ON ALL
13 DISPUTED RESOURCES IN ORDER FOR THE ALTERNATIVE PATH TO BE
14 IMPLEMENTED?

15 A. It is my understanding that Staff is interested in a comprehensive resolution
16 and the Company shares that goal. We believe that further discussion is
17 merited and, based on our discussions to date, will result in a productive
18 outcome. However, the Company is also open to a developing a partial
19 resolution.

20
21 Q. WHY IS IT REASONABLE FOR THE COMPANY TO RECOVER THESE PPA COSTS
22 SUBJECT TO REFUND UNTIL ITS NEXT RATE CASE?

23 A. Developing a workable and equitable proxy pricing methodology is very
24 complex. Not only will the proxy price need to consider both an energy and
25 capacity component, but each such component can be reached through a
26 variety of different methods—such as locational marginal pricing, system
27 average cost, or more economic, market-based models. In his Rebuttal

1 Testimony, Mr. P. J. Martin describes one such market-based methodology.
2 In any event, we need substantial time to develop such a methodology and
3 expect to actively engage Staff in doing so. Further, implementing the
4 methodology through a rate case also allows for a holistic review of how this
5 proxy pricing fits into the Company's overall rates and provides for
6 mechanisms for the refund of the difference (if any) between the proxy price
7 and the actual price of these PPAs.

8
9 Q. HAS THE COMPANY TRIED TO IMPLEMENT A PROXY PRICING STRUCTURE
10 PREVIOUSLY?

11 A. Yes. There are two instances where the Company, or an affiliate of the
12 Company, has tried to implement a proxy pricing structure. One was
13 successful and the other was not.

14
15 The Company's affiliate, Southwestern Public Service Company (SPS),
16 implemented a proxy pricing structure to accommodate Texas and New
17 Mexico jurisdictional policy differences regarding five PPAs required to
18 comply with New Mexico's Renewable Portfolio Standard. To retain the
19 integration of the Texas/New Mexico system, SPS proposed, and the New
20 Mexico Public Regulation Commission approved, a proxy pricing model that
21 allowed: (1) Texas to pay its allocated share of the costs of the purchased
22 power agreements up to the system avoided energy costs, which meant
23 Texas retail customers were indifferent as to the PPAs; and (2) New Mexico
24 to pay the remainder of the PPA costs to keep SPS whole.

25
26 The Company also attempted to implement a proxy pricing structure in
27 North Dakota to accommodate policy differences regarding a series of

1 historic PPAs that were questioned by the North Dakota Public Service
2 Commission (NDPSC) Staff in the Company's previous North Dakota rate
3 case. Ultimately, these efforts were unsuccessful as the proxy pricing
4 structure being discussed was forward looking and was intended to be
5 applicable to all resources that the Company brought before the NDPSC for
6 approval. Differences of opinion regarding assurances that contributions to
7 System capacity were appropriately accounted for – including the capacity
8 value – at the time the resource was placed in-service; the broad scope of the
9 potential applicability of a proxy pricing paradigm; and the inability to agree
10 on the appropriate proxy prices that fully valued each resource ultimately
11 made it too difficult to achieve an equitable outcome.

12
13 Q. WHAT DO YOU THINK ARE THE NECESSARY COMPONENTS AND PRINCIPLES
14 FOR A PROXY PRICING PARADIGM TO BE SUCCESSFUL?

15 A. Proxy pricing can be most successful when utilized to levelize differences
16 between jurisdictions regarding mandated resource selections, such as
17 renewable energy mandates. In those instances, if one state's law requires
18 the addition of a particular type of resource and the other state does not,
19 utilizing a proxy pricing regime can mitigate the cost shift of the mandated
20 resources to the non-mandating states while still having all states contribute
21 to the underlying value that a resource provides to the NSP System such as
22 energy and capacity. By addressing a particular set of resources, such as
23 those required by renewable energy mandates, the application of proxy
24 pricing is cabined to a small subset of resources. This is consistent with the
25 SPS experience in Texas and New Mexico.

26

1 Q. COMMISSION STAFF PROPOSED CERTAIN CHANGES TO THE MONTHLY FUEL
2 CLAUSE FILINGS SUBMITTED TO SOUTH DAKOTA. WHAT IS YOUR RESPONSE
3 TO THE STAFF’S SUGGESTIONS?

4 A. I think the proposed changes to the FCR process have merit and can be a
5 way to provide more transparency regarding the costs that are included in
6 the FCR. I believe that increasing this transparency can mitigate the types of
7 disputes that are the subject of this proceeding.

8

9 Q. DOES THE COMPANY AGREE TO IMPLEMENT THE CHANGES STAFF SUGGEST?

10 A. Yes. As noted above, the Company looks forward to engaging in further
11 discussions regarding how to best implement Staff’s suggested changes.

12

13 **IV. REQUESTED ADDITIONAL INFORMATION**

14

15 **A. St. Paul Cogeneration**

16 Q. MR. THURBER REQUESTED THAT THE COMPANY CLARIFY THE FUEL TYPE OF
17 THE ST. PAUL COGENERATION RESOURCE. HOW DO YOU RESPOND?

18 A. The St. Paul Cogeneration plant is a biomass fired combined heat and power
19 plant. It is mainly fed by urban wood waste that is converted into a wood
20 chips for combustion. The biomass fuel is combined with natural gas in the
21 boiler to increase combustion temperature and increase stability.

22

23 As discussed above and in my Direct Testimony, the St. Paul Cogeneration
24 PPA is one of the three resources the Company acquired to comply with the
25 Minnesota Biomass Mandate. Consequently, the Company views this
26 resource as a biomass resource even though some natural gas is used in the

1 generation of electricity. To the extent the Company identified this resource
2 as natural gas fired in discovery, it was in error.

3
4 **B. Solar*Rewards Community**

5 Q. WHAT IS THE SOLAR*REWARDS COMMUNITY PROGRAM?

6 A. Under the Solar*Rewards Community program, solar gardens are
7 distribution interconnected central solar installations from which our
8 customers can subscribe for a portion of the output to meet their energy
9 needs in Minnesota. Solar gardens are not owned and operated by the
10 Company (although they may be owned and operated by an affiliate of the
11 Company) and customers enter into a contract directly with the solar garden
12 owner for the output of the facility. Pursuant to Minn. Stat. § 216B.1641(d),
13 the Company is required to provide a bill credit to those customers who
14 subscribe to community solar gardens in an amount described in statute and
15 set by the Minnesota Commission. We manage solar gardens under the
16 auspices of our Solar*Rewards Community program.

17
18 Q. HOW DOES THE COMPANY RECOVER THE COSTS OF THE SOLAR*REWARDS
19 COMMUNITY PROGRAM?

20 A. We recover the costs of our legislatively mandated bill credit through the
21 Minnesota Fuel Clause.

22
23 Q. DO ANY OF THE COSTS OF THIS PROGRAM FLOW THROUGH TO CUSTOMERS IN
24 OTHER NSP SYSTEM STATES BESIDES MINNESOTA?

25 A. When the Solar*Rewards Community program was first established, we
26 recovered 100 percent of the costs of the bill credit from our Minnesota
27 customers. However, as the program continues to grow, we believe that the

1 energy produced from solar gardens will materially impact our management
2 of the NSP System. More specifically, as more energy is produced from
3 solar gardens, fully recovering the cost of the program from our Minnesota
4 customers will not equitably spread the System's cost of energy to all of the
5 states who are served by it. This is because energy produced by solar
6 gardens results in less load being bid into the MISO markets and therefore,
7 less energy purchased to meet that load serving need. This means that our
8 reduced load offsets the need for energy that would have otherwise been
9 produced by our generating fleet or otherwise purchased from the MISO
10 market and the costs allocated across the entire system.

11
12 To avoid the reverse subsidy the other states of the NSP System would
13 enjoy due to the energy produced by solar gardens, the Company intends to
14 recover the hourly day-ahead MISO LMP for solar garden energy
15 production from the other four states of the NSP System, including South
16 Dakota. We would recover the difference between the LMP and the total
17 amount of the bill credit from our Minnesota customers through the
18 Minnesota fuel clause adjustment. We believe this is reasonable since the
19 energy produced by solar gardens offsets the need for other production or
20 market purchases and LMP represents that marginal cost of energy avoided.
21 This methodology preserves the equitable allocation of total system energy
22 costs that currently exists while recognizing – and assigning the costs of –
23 the Minnesota mandated program to our Minnesota customers.

24
25 **C. Net Metering, Solar*Rewards and Made In Minnesota**

26 Q. COMMISSION STAFF REQUESTED FURTHER INFORMATION REGARDING THE
27 COMPANY'S NET METERED PROJECTS BY FUEL TYPE, AND THE COMPANY'S

1 SOLAR*REWARDS AND MADE IN MINNESOTA SOLAR PROGRAMS. ARE YOU
2 PROVIDING THAT INFORMATION AT THIS TIME?

3 A. At this time the Company is still compiling the requested information. We
4 propose to discuss these programs further with Staff as we continue
5 discussions on a resolution to the issues presented in this proceeding. Based
6 on the outcome of those discussions, the Company will supplement the
7 record with additional information to the extent necessary.

8
9 **V. CONCLUSION**

10
11 Q. DOES THIS CONCLUDE YOUR TESTIMONY?

12 A. Yes.