

**BEFORE THE  
NORTH DAKOTA PUBLIC SERVICE COMMISSION**

***In the Matter of Northern States Power Company's  
Advance Determination of Prudence  
For its Solar Portfolio  
Case No. PU-14-810***

**SURREBUTTAL TESTIMONY  
OF  
MIKE DILLER**

**ON BEHALF OF THE  
NORTH DAKOTA PUBLIC SERVICE COMMISSION  
ADVOCACY STAFF**

**May 6, 2015**

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1       **Q: Provide your name and qualifications.**

2       A: My name is Mike Diller. I am the Director of Economic Regulation for the  
3       North Dakota Public Service Commission (NDPSC).

4  
5       **Q: Have you provided other testimony in this case?**

6       A: I submitted Direct Testimony on February 20, 2015.

7

8       **Q: What is purpose of your Surrebuttal Testimony?**

9       A: NSP's witness, Mr. Haeger, provided 27 pages of Direct Testimony which I  
10       followed up with 16 pages of Direct Testimony. Mr. Haeger has responded to  
11       my testimony with 36 pages of Rebuttal Testimony plus 21 pages of attached  
12       testimony related to the Advanced Determination of Prudence (ADP) for a  
13       Purchase Power Agreement (PPA) with Aurora Distributed Solar, LLC not yet  
14       heard by the commission. Advocacy Staff cannot respond to all the testimony  
15       due to time limitations. However, we will address the more critical matters  
16       and reaffirm our position.

17

18       **Q: What is your overall impression of Mr. Haeger's testimony?**

19       A: Generally, each round of testimony tends to narrow the scope and refine the  
20       issues. In this case, Mr. Haeger raises a lot of questions and complexity for a  
21       case that I believe is quite straight forward.

22

23       **Q: What are your thoughts on whether NSP's North Dakota ratepayers  
24       should be part of the integrated system?**

25       A: Northern States Power Company (NSP) apparently expects its North Dakota  
26       (ND) ratepayers to pay for the additional costs put upon it by the State of  
27       Minnesota in order to be a part of its integrated system. In a sense, North  
28       Dakota must pay to play. If North Dakota desires to enjoy NSP's large  
29       economies of scale, then it must pay for generation it does not need.

30

1 NSP operates an integrated system in the technical sense that the Eastern  
2 Grid is an interconnected system; including NSP's territory. It isn't so  
3 integrated from an energy policy perspective. In that regard, NSP's system is  
4 a MN system. Similarly, the latest Integrated Resource Plan is more of a MN  
5 plan rather than least cost resource planning.

6  
7 Quite frankly, I don't believe the commission should worry too much about  
8 this threat of being alienated from NSP's integrated system. The commission  
9 should just continue to expect that least cost planning will occur whether that  
10 occurs through total system generation additions or ND specific generation  
11 additions.

12  
13 **Q: NSP argues for proxy pricing of the solar capacity and energy in order**  
14 **to maintain an integrated system in the short- to mid-term. Isn't that**  
15 **reasonable?**

16 A: No. NSP does not need capacity until 2024. It is one thing to adjust the  
17 energy price of these solar projects to reflect a more reasonable price but  
18 quite another to expect ND ratepayers to pay for capacity not needed, proxy  
19 price or otherwise.

20  
21 **Q: Are you really suggesting in your testimony that North Dakota rely on**  
22 **MISO's annual auction for its capacity requirements?**

23 A: Of course not. It is just one of many resources available to NSP for meeting  
24 its capacity needs. Generally speaking, the auction price information is  
25 included in my testimony to show that there is in fact excess capacity and that  
26 it can be had for a reasonable price. It is not an end-all-be-all proposition but  
27 provides a one-year solution for those who would avail themselves of the  
28 market.

29

1 MISO's third annual capacity auction was recently held and Montana-Dakota  
2 Utilities Co. purchased a year's worth of capacity of 16.6 MW's for \$21,085.32  
3 or a cost of about \$1,270 per MW – year. By comparison, MISO estimates  
4 the cost of new capacity to be \$89,500 per MW – year. MISO's annual  
5 auction is a real market; it is used by real utilities as a bridge from capacity  
6 deficiency to capacity sufficiency. Based on MISO's capacity cost of new  
7 entry, MDU saved its customers \$1.5 million through the capacity auction by  
8 deferring the building of additional capacity by one year.

9  
10 NSP submits its forecasted needs to MISO November 1 for its needs  
11 beginning June 1 of the following year. MISO reviews the forecasts for  
12 reasonableness and affirms the amount of needed resources. NSP then  
13 must show how it will meet those needs. In the event NSP has not fully  
14 anticipated its needs when submitting its resource needs, it must then acquire  
15 capacity resources in one fashion or another with the capacity auction being  
16 one of the available resources.

17  
18 The forecasting of capacity and energy needs is done on a regular basis by  
19 NSP. Management is tasked with the responsibility of monitoring sales and  
20 trends in sales and planning for them accordingly. Forecasted needs  
21 generally do not change overnight. Resources are being planned well ahead  
22 of needs to accommodate the building time for generation assets that Mr.  
23 Haeger talks about. It is a primary reason for doing resource planning. NSP  
24 should not wake up November 1 and go OMG, our forecasted need is much  
25 higher than we thought and we only have a few months to enter into bilateral  
26 agreements, rely on the MISO auction or submit ourselves to MISO's CONE  
27 penalty.

28

1       **Q: Mr. Haeger agrees that the Solar Portfolio is not the least cost resource**  
2       **but offers a lot of qualitative reasons for approving the ADP application**  
3       **nonetheless. Do you have any qualitative reasons of your own for the**  
4       **commission to consider?**

5       A: Yes, I do. If the commission ever wants to see those natural gas turbines  
6       built on the eastern side of the state by 2036 as agreed to by NSP in its last  
7       rate case Settlement, then it must resist paying for capacity that is not  
8       needed. The Agreement states that 400 MW of thermal generation resources  
9       will be developed in North Dakota no later than 2036 (listen carefully to the  
10      next part) “consistent with the principles of orderly development” and “prudent  
11      resource planning.” Orderly development and prudent resource planning  
12      cannot occur so long as Minnesota trumps the process by ordering more  
13      generation than is needed. As long as that continues, Red River Units 1 & 2  
14      will not be built.

15  
16      Secondly, it is worth considering Minnesota’s end game in the realm of  
17      qualitative considerations. You may choose to believe that the MN PUC has  
18      lost its collective mind and cares nothing about the price of electricity when  
19      ordering excess generation capacity. I personally don’t believe that. My  
20      belief is that they are building excess generation to allow flexibility to run coal  
21      plants less (which is part of NSP’s most recent IRP) or perhaps movement  
22      towards eliminating coal plants in MN altogether. If that is right, our  
23      ratepayers have a 5% stake in the remaining coal plants that will be run less  
24      or prematurely closed down. Paying for excess capacity we don’t need helps  
25      facilitate the wrong direction of MN and hastens the ruin of MN coal plants  
26      that provide low cost energy to ND consumers.

27  
28      Third and closely related to the first two, the commission should consider the  
29      matter of command and control. As long as the generating assets of NSP are  
30      located in MN, this commission and the state as a whole will have little or no

1 control over whether the generating plants are used efficiently or ran until the  
2 end of the assets useful life. Today, the state of MN is at war with coal plants.  
3 When all the coal plants in MN are gone, it isn't too difficult to imagine that  
4 gas plants will be targeted next. If ND wants some say over energy policy in  
5 the future, do not approve excess generation built in MN but instead hold tight  
6 and require that generation be built in ND to the extent possible.

7  
8 Fourth, the commission should inform NSP through its decision in this case  
9 that a permanent solution is required. According to NSP, the proxy pricing for  
10 generating units not acceptable to ND is just a temporary solution to buy more  
11 time for a permanent solution. Demand a permanent solution and resist  
12 paying a capacity proxy price to kick this can down the road. To the extent  
13 ND pays for generation it does not need lessens the impetus for NSP to  
14 instruct its cost causing state to pony up for its own costs. I cannot say this  
15 any better than NSP's customer Larry Lampl of West Fargo wrote and  
16 adopted here as my testimony:

17  
18 I do not have a voice in the MN State Legislature on  
19 mandated alternative energy source requirements that they  
20 place on their energy companies. Therefore, I do not believe  
21 that I or any other ND customer should be required to pay  
22 increased electrical rates for their mandatory energy  
23 sources. That cost should be borne by MN customers only  
24 as it was their state legislators who passed the MN Solar  
25 Energy Standard that impacts NSP.

26

1       **Q: Mr. Haeger argues that determining a proxy price for capacity will result**  
2       **in North Dakota customers paying for used and useful resources**  
3       **servicing them. Do you agree?**

4       A: No. Could you argue that once these solar farms are built and providing  
5       support and energy to the grid that they are indeed used? You could.  
6       However, the phrase contains a conjunction “used AND useful” not merely  
7       used. If being “used” was the only prerequisite, NSP could build a thousand  
8       solar farms and a million wind farms and as long as they were connected to  
9       the grid in some fashion then the added additions could be deemed used and  
10      therefore reasonable and prudent. Thankfully, the full phrase of “used AND  
11      useful” brings common sense into the legal realm. This legal metric requires  
12      that these units also be “useful.” I contend that the lack of need for capacity  
13      and the associated high priced energy these solar farms produce do not meet  
14      the useful criteria. These solar farms are not useful to ND ratepayers.  
15      Accordingly, these solar farms are not “used AND useful” for NSP’s ND  
16      ratepayers.

17  
18      **Q: Energy policy differences between MN and ND began showing up over**  
19      **the last 10 years because of differences in renewable objectives. NSP**  
20      **advocates that we continue to use proxy pricing until a more permanent**  
21      **solution can be determined. Why is a permanent solution taking so**  
22      **long?**

23      A: I think there are a number of reasons for this. The commission staff has been  
24      working hard to better understand the Integrated Resource Planning process  
25      and that takes time.

26  
27      As you know, the Restacking Agreement came about through Settlement in  
28      NSP’s last rate increase application because many of the generation  
29      resources in MN were simply too expensive and built primarily for MN  
30      purposes. We agreed in principle to finding an appropriate proxy for the re-

1 pricing of energy and capacity associated with those units as a stop gap  
2 measure to minimize ND's exposure to costly energy and capacity. Of course  
3 the Agreement was predicated on needing energy and capacity.

4  
5 We have not come to terms yet on a restack agreement but some insight into  
6 that process will help answer the question of why it is taking so long. When  
7 we first started negotiating the terms for restacking generation, NSP  
8 suggested that MISO's Cost of New Entry (CONE) should be used as a proxy  
9 price for capacity that did not comport with ND energy policies. It seemed  
10 reasonable until we asked more questions and discovered that MISO's CONE  
11 price is inflated and not representative of what it would cost to bring new  
12 capacity online. Staff realized that if we had not kept asking questions that  
13 ND might have been saddled with an over-inflated price for capacity which  
14 would have been embarrassing to us and the commission. Learning and  
15 discovery take time.

16  
17 Secondly, the commission should remember that NSP has a fiduciary  
18 responsibility to its stockholders. As such, the Company is in the business of  
19 limiting and eliminating risks to earnings to the degree possible. And so if you  
20 think about it from a risk perspective, the least amount of risk for NSP is to  
21 convince ND to pay full freight for each generation facility brought online,  
22 whether it is needed or not. The next level of risk is to limit the risk to only the  
23 "premium cost" being paid for such generation which is the general idea  
24 behind the Restack Agreement.

25  
26 The problem here is that the rules of the game have changed and in this  
27 instance capacity is not needed at all so the proxy price for capacity should  
28 be zero; not CONE or some semblance of CONE. Not paying for capacity  
29 adds additional risk to NSP because then it would have to go to the cost

1           causers and recover the cost from them. The problem here is that MN is  
2           good at ordering things and not so good at paying for them.

3  
4           The commission should not make the management of risk in this regard easy  
5           for NSP. They have a fiduciary responsibility to manage their own risk. North  
6           Dakota ratepayers should not be expected to lift the risk for happenings in  
7           MN. While the task before NSP may be difficult in MN, the Company needs  
8           to get over the idea of seeking risk abatement from ND for the policy  
9           decisions made in MN.

10  
11          **Q: Do you have a recommendation for a permanent solution to the**  
12          **allocation of generation resources between the states of MN and ND?**

13          A: I think Mr. Haeger has it right on his last page of Attached Testimony to his  
14          Rebuttal Testimony when he concludes that it is incumbent upon the  
15          Company to propose solutions to the impact that divergent state energy  
16          policies have on NSP.

17  
18          I agree that the Company is in the best position to develop a long-term  
19          solution. That said, I have not been bashful with the Company in advocating  
20          for simple straight-forward long-term solutions. Some of my suggestions  
21          include agreeing this day forward to a fixed share of generation plants that  
22          conform to ND's energy policy of least cost planning. Fixing the share will  
23          eliminate any confusion as to what is owned and acceptable to ND. Fixing  
24          the share will eliminate any noise from the jurisdictional allocation process so  
25          that ND would know at any given time how much capacity it has; it would not  
26          fluctuate based on 12CP. Knowing exactly what capacity is assigned to ND  
27          will allow NSP to better manage its ND's capacity requirements and provide  
28          the kind of deference we desire.

29

1 If and when ND needs capacity, NSP should be required to meet capacity  
2 needs with the least cost resource addition and with much forethought and  
3 timeliness of planning. NSP should be required to work with other utilities in  
4 ND to partner on larger economical projects should that be available and I  
5 believe those opportunities exist. NSP could partner at the company level or  
6 partner at the ND level depending on the Company's needs and North  
7 Dakota's needs at the time. If the rest of NSP's operations found itself awash  
8 in capacity it could even sell ND capacity at the market rate so long as it was  
9 the least cost option for ND. NSP is a large company always building  
10 generation or replacing generation which provides plenty of opportunities to  
11 secure capacity for ND and it does not necessarily need to be in direct  
12 proportion to 12CP as has been the custom in the past. Montana-Dakota is  
13 deploying smaller reciprocating engines on its system because they are least  
14 cost capacity additions and perhaps the same could be done in Fargo, Grand  
15 Forks or Minot where no generating facilities currently exist. NSP could enter  
16 into short-term or long-term capacity agreements should that be least cost.  
17 NSP could bridge the gap between deficient capacity and sufficient capacity  
18 by making use of MISO's annual capacity auction just as MDU did last month.  
19 ND could participate in the Calpine Mankato Energy Center II natural gas  
20 combined cycle project that has also been filed for ADP before the  
21 commission should that proposal result in least cost planning. The solutions  
22 for ensuring adequate capacity for ND are quite extensive and very  
23 manageable. Developing a long-term solution for generation cost allocation  
24 should be achievable.

25  
26 **Q: NSP provided a Supplement to its most recent IRP to reflect the MNPUC**  
27 **orders to build generation. Can you provide a condensed summary of**  
28 **Table 1: Updated Load and Resources for the commission and provide**  
29 **comments?**

30 **A: Yes. Following are some of the more important lines for this proceeding:**

<u>MW's of:</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>
Obligation	9,607	9,691	9,764	9,818	9,843	9,863	9,924	9,919
Existing Resources	9,846	9,907	9,902	9,873	9,816	10,067	10,079	10,053
<b>Existing Capacity Surplus</b>	<b>239</b>	<b>216</b>	<b>138</b>	<b>55</b>	<b>(27)</b>	<b>204</b>	<b>155</b>	<b>134</b>
Additional Resources:								
Solar Portfolio (187*52%)	-	97	97	97	97	97	97	97
Black Dog 6 Natural Gas				208	208	208	208	208
Calpine Mankato Natural Gas				278	278	278	278	278
Geronimo Aurora Solar			70	69	69	69	68	68
Community Solar Gardens etc.	19	35	53	73	97	107	107	106
<b>Projected Capacity Surplus</b>	<b>258</b>	<b>348</b>	<b>358</b>	<b>780</b>	<b>722</b>	<b>963</b>	<b>913</b>	<b>891</b>
<b>Capacity Surplus without Solar</b>	<b>239</b>	<b>216</b>	<b>138</b>	<b>541</b>	<b>459</b>	<b>690</b>	<b>641</b>	<b>620</b>
<b>Capacity Surplus Black Dog Only</b>	<b>239</b>	<b>216</b>	<b>138</b>	<b>263</b>	<b>181</b>	<b>412</b>	<b>363</b>	<b>342</b>

As can be noted, NSP projects a capacity deficit in 2020 but that is easily remedied from a ND basis because the commission has already granted an advance determination for Black Dog 6 natural gas combustion turbine expected to come online in 2019. The final line in the table above shows the amount of surplus capacity with none of the additional resources ordered by the MNPUC except for Black Dog 6 showing excess capacity for the next 9 years through 2023. Of course, the projections will change, the assumptions will change, the technologies will change, the policies will change and on and on but this schedule reflects NSP's best guess for its needs and resources to meet those needs.

**Q: Can you give the commission some assurances that enough capacity will be available for NSP's ND ratepayers?**

A: There are very few guarantees in life outside of death and taxes. However, the electric industry has done a fabulous job of keeping the lights on. There is no reason to think that a disallowance of ADP for these solar farms will change that tradition but here are some things to think about in that regard.

1 MISO manages the generation resources in the region to a mathematical  
2 probability of less than one-day loss of load event in 10 years or .1 day per  
3 year. Secondly, NSP is required by MISO to carry a planning reserve margin  
4 of 7.1% above its peak load which occurs in the summer; not the winter.  
5 Third, MISO's Zone 1 (NSP's zone) has the capability of importing more than  
6 3,700 MW's of capacity from its other zones in the event additional support is  
7 needed. Fourth, ND produces much more electricity than it uses and it is  
8 limited in its export capabilities. Fifth, the commission can cause generation  
9 to be built locally through its decisions, orders and legislative work. Sixth,  
10 NSP will manage its operation to ensure capacity is available for its North  
11 Dakota ratepayers. The electric grid is an essential service and is already  
12 managed conservatively without the need for extra solar power generation.

13  
14 **Q: Does this conclude your Surrebuttal Testimony?**

15 **A:** Yes, it does.  
16