STATE OF NORTH DAKOTA

PUBLIC SERVICE COMMISSION

Northern States Power Company **Case No. PU-14-810**
Advance Prudence – 187 MW Solar Energy Portfolio
Application

AFFIDAVIT OF SERVICE ELECTRONIC MAIL

STATE OF NORTH DAKOTA
COUNTY OF BURLEIGH

Amy Haugen deposes and says that:

she is over the age of 18 years and not a party to this action and, on the **5th day of May, 2015**, she sent 4 addressees an electronic copy of:

Advocacy Staff's Witness and Exhibit List
Surrebuttal Testimony of Mike Diller

The electronic mails respectively were addressed as follows:

David H. Sederquist
Senior Consultant, Regulation and Finance
Xcel Energy
dave.sederquist@xcelenergy.com

Tiffany Hughes
Records Analyst
Xcel Energy
regulatory.records@xcelenergy.com

Alison C. Archer
Attorney
Xcel Energy
Alison.C.Archer@xcelenergy.com

Zeviel T. Simpser
Attorney
Xcel Energy
zsimpser@briggs.com

Each email address is the respective addressee's last reasonably ascertainable electronic mailing address.

Amy Haugen

Subscribed and sworn to before me
this **5th day of May, 2015.**

Shelly A Bauske
Notary Public

SEAL

SHELLY A. BAUSKE
Notary Public
State of North Dakota
My Commission Expires July 22, 2016

STATE OF NORTH DAKOTA

PUBLIC SERVICE COMMISSION

RE: Northern States Power Company)
Advanced Prudence – 187 MW Solar) **Case No. PU-14-810**
Application)

ADVOCACY STAFF'S WITNESS AND EXHIBIT LIST

Advocacy Staff submits this witness and exhibit list in advance of the May 6, 2015 Advanced Prudence Hearing along with copies of the exhibits. The witness anticipated to be called at the hearing is Mike Diller. Advocacy Staff reserves the right to call additional witnesses as the hearing may dictate.

Advocacy Staff expects to offer into evidence and use the following exhibits for the May 6, 2015 hearing. Advocacy Staff reserves the right to offer other exhibits as the evidence may dictate.

EXHIBIT NO.	DESCRIPTION
PSC-1	Data Requests and Responses
PSC-2	NSP MN Compliance – Supplemental Competitive Resource Acquisition – Thermal – Docket No. E002/M-14-789
PSC-3	NSP MN Reply Comments – Competitive Resource Acquisition – Docket No. E002/CN-12-1240
PSC-4	MISO 2015-2016 Loss of Load Expectation Study Report
PSC-5	MISO No. 011 Business Practice Manual
PSC-6	MISO Website – Corporate Information
PSC-7	MISO Website – 2015-2017 Budget
PSC-8	MISO Planning Resource Auction – 2013-14 Plan Year
PSC-9	MISO Planning Resource Auction – 2014-15 Plan Year
PSC-10	FERC ORDER ON ANNUAL COST OF NEW ENTRY RECALCULATION FILING – Docket No. ER10-2090-000
PSC-11	NSP's – Upper Midwest Resource Plan – 2016-2030 – Docket No. PU-15-19
PSC-12	Montana-Dakota Utilities – Advanced Determination of Prudence Filing for Thunder Spirit Wind – PU-14-843
PSC-13	North Dakota Public Service Commission Finding of Fact, Conclusions of Law, and Order – Case No. PU-06-481; PU-06-482
PSC-14	North Dakota Public Service Commission – Comments to EPA
PSC-15	Order Adopting Settlement – Case No. PU-12-813; PU-13-706; PU-13-707; PU-13-708; PU-13-742; PU-13-743; PU-13-194; PU-13-195
PSC-16	NSP 2015 Upper Midwest Integrated Resource Plan – Supplement – Case No. PU-15-19

PSC-17	Direct Testimony of Advocacy Staff – Witness Mike Diller
PSC-18	Surrebuttal Testimony – Witness Mike Diller

Dated this 4th day of May, 2015

John M. Schuh
Special Assistant Attorney General
State Capitol – 12th Floor, Dept. 408
600 E. Boulevard Ave
Bismarck, ND 58505-0480
(701) 328-2421
Attorney for Advocacy Staff

and

Mike Diller
Director of Economic Regulation
Public Service Commission Advocacy Staff
State Capitol – 12th Floor, Dept. 408
600 E. Boulevard Ave
Bismarck, ND 58505-0480
(701) 328-4079

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

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

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

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

Q: What is purpose of your Surrebuttal Testimony?

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

MW's of:	2016	2017	2018	2019	2020	2021	2022	2023
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
Existing Capacity Surplus	**239**	**216**	**138**	**55**	**(27)**	**204**	**155**	**134**
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
Projected Capacity Surplus	**258**	**348**	**358**	**780**	**722**	**963**	**913**	**891**
Capacity Surplus without Solar	**239**	**216**	**138**	**541**	**459**	**690**	**641**	**620**
Capacity Surplus Black Dog Only	**239**	**216**	**138**	**263**	**181**	**412**	**363**	**342**

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.

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

Q: Does this conclude your Surrebuttal Testimony?

A: Yes, it does.