Public Service Commission
State of North Dakota

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November 20, 2013

Darrell Nitschke, Executive Secretary
North Dakota Public Service Commission
600 E Boulevard Ave, Department 408
Bismarck, ND 58505

Re: Case Nos. PU-13-194 and PU-13-195
Northern States Power Company
Advance Determination of Prudence – NG Generators Application
Red River Valley NG Units 1 & 2 – Hankinson, ND
Public Convenience & Necessity

Dear Mr. Nitschke:

Enclosed for filing is an original copy of Advocacy Staff's direct testimony in the above captioned proceedings.

Thank you.

Best regards,

Ryan M. Norrell
Legal Counsel

Enclosure

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Direct Testimony of Mike Diller

Public Service Commission Advocacy Staff

Ryan Norrell, Legal Counsel

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Direct Testimony of Mike Diller

Public Service Commission Advocacy Staff

Ryan Norrell, Legal Counsel

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 Three Natural Gas Combustion Turbine Generators and a Certificate of Public Convenience and Necessity for Two Natural Gas Combustion Turbine Generators near Hankinson, ND

Case Nos. PU-13-194 and PU-13-195

DIRECT TESTIMONY

OF

MIKE DILLER

ON BEHALF OF THE

NORTH DAKOTA PUBLIC SERVICE COMMISSION

ADVOCACY STAFF

November 26, 2013

Q: Provide your name and position at the North Dakota Public Service Commission (commission).

A: My name is Mike Diller and I am the Director of Economic Regulation.

Q: What kind of work do you provide to the commission?

A: I am a utility analyst and provide direction to a small staff.

Q: Provide a summary of your educational background and public utility regulatory experience.

A: I have about 29 years of public utility regulatory experience including service to both the Oklahoma Corporation Commission and the North Dakota Public Service Commission. I received a Bachelor of Science Degree in Accounting from Oklahoma Christian College in Edmond, Oklahoma in 1981. I am a Certified Public Accountant and I am a member of the American Institute of Certified Public Accountants.

Q: Have you previously provided testimony to the commission?

A: Yes. I have testified before the commission on acquisition proposals, rate cases, settlement offers, advance determination of prudence requests and rule changes.

Q: What is the purpose of your testimony?

A: My purpose in testifying is to highlight the need for generation assets in eastern North Dakota near the load centers of Northern States Power Company (NSP) to ensure energy security for its ratepayers. I will address the lack of fairness that exists between NSP's current service to Minnesota compared to that of North Dakota. To that end, I recommend that the commission approve NSP's application for advance determination of prudence for its proposed gas turbines and that public convenience and necessity is granted.

Q: Why is this proceeding important?

A: NSP is an integrated utility company serving many different states. NSP assigns approximately 5% of its investments in generation facilities to North Dakota ratepayers as part of its integrated resource cost allocation system. Therefore, any generation addition, whether it is in North Dakota or another state, impacts the costs attributable to North Dakota ratepayers.

For instance, North Dakota currently pays for a portion of generating costs related to NSP's obligations to meet the Minnesota Renewable Energy Standard; the Minnesota Metropolitan Emissions Reduction Project; Minnesota's Community-Based Energy Development program; and any other investments ordered by another state affecting the cost and deployment of its integrated generation fleet.

This proceeding is important because it presents the commission an opportunity to not only grant an advance determination of prudence (ADP) for needed generation in the eastern part of the state but require it as well. Minnesota regulators and legislators have required plenty from NSP for their own interests in cleaner air, green energy and distributed generation.

This commission and NSP's ratepayers have been patient and accommodating to NSP. It is part of our Midwestern culture. Generally speaking, fair treatment begets fair treatment. However, I believe North Dakota is being taken advantage of while NSP's management continues to expect North Dakota to accept the poor position of no local generation near four of its largest cities.

Q: What is the value of conducting ADP hearings?

A: It has long been argued by utilities that an ADP provides certainty in cost recovery and as a result utilities can access lower cost of capital. The argument is logical but to what extent it is true, I do not know.

Aside from a theoretical benefit, the value I see as a staff member in ADP proceedings is the ability to narrow my focus on important decisions that will impact ratepayers for a very long time. I think addressing large capital investments singularly is better than rolling it into a multi-issue rate case. Rate cases are complex enough without adding integrated resource addition evaluations to the mix.

ADP's also allow the commission to make real time decisions alongside the utilities it regulates. For instance, if a rate case is not filed until 5 years after a resource is added, it is much harder to ignore 5 years of "Monday morning" quarterbacking when issuing a determination of prudence and rate recovery. The ADP process allows the commission to make decisions in real time when it has a sense of steel prices, labor markets, general economic conditions, EPA requirements etc. Conditions inevitably change over time and making a fair and equitable determination is easier when done in the moment.

Q: Provide a snap shot of North Dakota's interest in this proceeding.

A: NSP is the largest electric service provider in the state of North Dakota. NSP serves four of our five largest cities including Fargo, West Fargo, Grand Forks and Minot. None of these cities have generation facilities near them in the event the few transmission lines feeding them are disrupted. NSP has provided service to North Dakota for more than a century but remains relatively un-invested in North Dakota generation facilities.

Q: Why are you concerned with the lack of generation facilities near these cities?

A: I lived in a very rural homesteader's house for many years at the end of a distribution line. Backup generation was necessary not only for convenience but survival. I once went without power for almost two weeks when an ice storm took down distribution lines as well as a large transmission line near my home. NSP's North Dakota service territory is on the outer edges of NSP's system and somewhat comparable. North Dakota's largest city of Fargo is served by three NSP transmission lines some of which run on top of the same poles and there is no local generation nearby.

Q: Won't the large CapX line to Fargo negate the need for local generation?

A: The CapX line will improve reliability and stability in the Fargo area but it will not continue on to Grand Forks or Minot. As valuable as CapX is to North Dakota, it is not the same as having local generation. Some might argue that CapX is better than a generator located near Fargo because it will be tied into many different generators on the Midcontinent Independent System Operator (MISO) grid. I think there is some validity to their argument. The 345 KV line will be quite sturdy.

However, we live in a dangerous time. The threat against cyber security and terrorist attacks on physical properties continues to increase. Whether the stoppage of service comes from these or natural storms, cities with local generation have more energy security than do powerless cities stranded by miles of transmission line.

Q: Aren't you being a little over-dramatic?

A: I don't think so. In the spring of this year, South Dakota experienced a terrible ice storm leaving a wide swath of electric outages that lasted for days for some of the more rural areas served. During that ice storm, which impacted the Sioux Falls service territory, NSP's Angus Anson gas generators located in Sioux Falls were initially brought online as a precautionary measure to stabilize the electric grid and maintain system reliability. When the ice began melting causing additional transmission lines to trip, Angus Anson units were brought online again to meet energy requirements in the area.

The commission is well aware of the benefit of energy security in the Bismarck/Mandan area with the close proximity of MDU's Heskett Station. Our energy security will be strengthened further when the new gas turbine is online next to Heskett's existing coal generation facilities. Local generation is important to energy security and widely known and accepted by electric engineers and the electric industry as a whole.

Q: Considering all the states Xcel Energy serves including its southern operations in Colorado and Texas, does the major city served by Xcel Energy in each state served have local generation?

A: Yes.

Q: How is NSP's Minnesota jurisdiction positioned for the future?

A: Very well. All of the major cities and densely populated areas served by NSP have generation units in relative close proximity providing energy security that we would like for the eastern part of North Dakota. NSP's Minnesota operations have plenty of generating units including coal and nuclear base load units, intermediate combined cycle units, peaking plants, Community Based Energy Development (CBED), solar, biomass, hydro and even a great big battery.

Q: Why is there such a large discrepancy in generation investment between Minnesota and North Dakota?

A: To be fair, the Minnesota jurisdiction makes up about 75% of NSP's overall operation and so you would expect more generation to be located near its larger load centers.

Beyond that, I think there is a natural Company bias towards Minnesota because NSP is headquartered in Minneapolis. It is somewhat natural to give more consideration to a state where company management spends more of their time and effort. We don't see NSP's upper management at local events or social gatherings nor do they attend very many of our hearings or information exchanges. I don't think it is because they think they are too important or too sophisticated to spend time with us in North Dakota; it is just a matter of time and space. Further, I think it is easier for NSP to simply acquiesce to the desires of its largest jurisdiction because in doing so it eliminates 75% of its risk of recovery.

Q: Has NSP made more of an effort to address the lack of jurisdictional equality?

A: Yes. I believe the officers of the Company are beginning to try and address the problem. The Company has entered into a purchased power agreement to purchase wind in North Dakota. NSP has also entered into an agreement to purchase a wind farm in North Dakota. They have proposed building the gas turbines in Hankinson to the Minnesota Public Utilities Commission. I think they are listening but it is unlikely that NSP will build gas turbines in North Dakota without a direct order from the commission to do so.

Q: Why would NSP not build the gas turbines that they have proposed to build in this proceeding?

A: In my opinion, NSP will not build the proposed units without a direct order to do so from this commission for a number of reasons, as follows:

1.) NSP must recover 95% of the costs from other jurisdictions.
2.) NSP witnesses in Minnesota are advocating building gas turbines in Minnesota, not North Dakota unless two other proposals fall by the

wayside. In other words, North Dakota generation is the backup plan to the backup plan.

3.) NSP claims that the cost of the Hankinson project is slightly higher than two other bids received from Calpine Corporation (Calpine) and Invenergy Thermal Development (Invenergy).

4.) NSP believes that its service territory in North Dakota has little to worry about with regard to energy security.

5.) The so called "competitive acquisition process" overseen by the Minnesota Public Utilities Commission is one-sided and biased against self-built generation assets in North Dakota.

Q: Should the commission approve the Hankinson turbines if other projects appear to be cheaper?

A: In this case, yes. Reliability of service is strengthened when generation assets are geographically dispersed throughout NSP's service territory, including North Dakota. As long as the cost differential is not material, generation should be built near its North Dakota load centers.

As it turns out, the Hankinson project costs are very competitive with NSP's other alternatives. But beyond that, I believe the ratepayers of North Dakota deserve energy security similar to that of Minnesota ratepayers. How comfortable would St. Paul and Minneapolis be if NSP's nearest non-intermittent generation facility was 180 miles away? The honest answer: unacceptable. I argue that it is similarly unacceptable to NSP's North Dakota ratepayers.

NSP has long argued that its Integrated Resource Plan (IRP) provides guidance to the Company. It is not a silver bullet nor is it the end all be all. If it were, you wouldn't need upper management or even the commission to review it or approve it. But that is not the case. Instead, NSP continues to argue that management discretion is necessary and that we should look for the best resource, not always the least cost resource. I agree.

In discussions with NSP, we often hear that a $10 or $20 million difference in the Present Value Revenue Requirement (PVRR) of NSP's total integrated system is immaterial. In this case, Hankinson Unit 1 combined with purchased capacity already owned and built by Great River Energy coupled with Black Dog 6 is the best resource when considering energy security. The $2.2 million difference in price differential between Hankinson and the least cost proposal is immaterial. If the long standing argument of NSP remains, then the Hankinson project should supplant any slightly lower cost alternatives for more generation in an already generator rich area such as Minnesota.

Q: Can you provide some context to this idea that $2.2 million is immaterial?

A: According to NSP's testimony in Minnesota, the Present Value Societal Cost (PVSC) modeling indicates that the Hankinson combination (Black Dog 6, Hankinson 1 and GRE capacity purchase) is $2.2 million more than the least cost plan (Black Dog 6 and Invenergy Cannon Falls—both located in Minnesota). Said another way, the present value difference between the modeled least cost plan and the Hankinson proposal over the next 36 years, totals $2.2 million. For further emphasis, note that NSP's estimated total PVSC for the next 36 years to operate all of its generating units is in excess of $45 billion. Further yet, NSP collects more than $200 million in annual revenues from its North Dakota customers and more than one-half of that goes to pay for production costs somewhere other than North Dakota. I think I am on fairly safe ground to claim that this difference in estimated cost is not material and the best resource addition includes a generating unit (Hankinson) in North Dakota.

Q: Why are you talking about PVSC instead of PVRR?

A: Minnesota does not have a law in place like North Dakota prohibiting the inclusion of externality factors. In fact their laws and rules require the use of externality factors. Minnesota ascribes externality values to particulate matter, carbon monoxide, nitrous oxides, lead and carbon dioxide. The externality factors are not real monetary costs but rather an assumption of cost to the environment for certain emissions. The PVSC designation then indicates that the modeled plan includes assumed externality costs which will naturally affect the type of resource selected.

For instance, in ordering the next resource to be built, the Minnesota Public Utility Commission (MPUC) adds \$9 to \$34 per ton for CO_2 emitted. Using the high cost externality factor for CO_2 moves the commodity cost of coal from about \$15 to \$49 before making comparisons of coal generating stations to other types of resources for least cost planning purposes.

In the interest of time management, I have accepted the Minnesota PVSC calculations since the comparisons of least cost capacity resources are all gas units with the same assigned environmental costs which minimizes any difference between it and a more strict PVRR calculation with no externality costs as required by North Dakota law.

Q: Is it possible that the modeled circumstances to occur over the next 36 years might turn out differently?

A: While all of these units are gas units, there are differences between them that could easily erase the \$2.2 million difference. The actual final build costs will likely be different. The cost of natural gas delivered to each potential build site will be different than the assumptions modeled. However, I am willing to stipulate to the Company's conclusion that the estimated cost of Hankinson is a few million more than its estimated least cost proposal. It is not enough to argue about. If anything, the small difference argues that the next capacity build-out for NSP should include a North Dakota unit.

Q: You have not weighed in on the need for more generating units, why not?

A: As you will see in my following recommendation, need is not that important to me. My concern is and remains that of energy security for North Dakota. You can note through NSP's witnesses that their own calculation of capacity need vacillates quite a bit from year to year for the reasons they explain. Therefore, my recommendation is built to accommodate the fluctuations in NSP's capacity requirements by granting sufficient time to integrate Hankinson Units 1 and 2 into NSP's integrated system.

Q: What do you recommend?

A: I believe the commission should act aggressively in this proceeding when granting an ADP. I support the approval for ADP for the projects described in NSP's application as well as the Certificate for Public Convenience and Necessity for the Hankinson Red River Valley units. However, the commission should give specific guidance as to how the projects are to be carried out to ensure completion.

The difference in PVRR for adding Black Dog 6 compared to Hankinson Unit 1 is likely greater than $60 million. Given the large difference in cost, I support the building of Black Dog Unit 6 first as proposed by NSP. After that, I recommend that the Hankinson Unit 1 must be built before 2024, followed by Hankinson Unit 2 which must be built before 2034. Requiring such will add 430 MW's of nameplate capacity which is approximately equal to Fargo's and Grand Forks' system peak.

Q: Why do you suggest such a long time frame when you are concerned about energy security in the eastern part of the state?

A: Perhaps it is the Midwestern culture at work in me again but I am trying to give NSP plenty of time to comply. I do not want to cause harm to NSP's shareholders. We have a long-term interest in a good relationship with NSP. Financial harm to NSP should only occur when it refuses to act in the best interest of the people it serves as a monopoly service provider in our state. To that end, the commission has been granted plenty of authority over NSP's rates. If a utility does not provide service in North Dakota that is fair, equitable and in the interest of its North Dakota ratepayers, the commission should not be afraid to use its authority.

Giving NSP more than 20 years to build the projects proposed in this filing will allow for an orderly and planned development process. NSP operates a 10,000 MW and growing system making the addition of two 215 MW gas turbines over the next 20 years benign and very doable. It will allow NSP plenty of time to mitigate jurisdictional risk. It will allow plenty of time to refine and improve the plans for North Dakota generation. It will allow NSP to force North Dakota generation into its integrated resource plan so that future generation plans and decisions can be made in concert with the plans in North Dakota.

Q: Any other suggestions?

A: Yes, I think that the commission should write its ADP order in such a way as to encourage the most efficient and feasible deployment of North Dakota generation. If possible, it should be written in a way so as to not preclude building the units somewhere other than Hankinson because a lot can change over the next 20 years. Perhaps the issue of gas availability near Fargo will be more plentiful and less costly than Hankinson sometime in the future and would be better for load stability and reliability located closer to its largest load center. If such specificity is not provided for by law under the general powers of the commission or in this instance under the ADP laws, I recommend approval of the ADP and PC&N application as filed by NSP. The commission can then guide the final location of the units through its siting authority. According to North Dakota Century Code 49-22-02, Statement of policy, the final sentence reads:

> "In accordance with this policy, sites and routes shall be chosen which minimize adverse human and environmental impact while ensuring continuing system reliability and integrity and ensuring that energy needs are met and fulfilled in an orderly and timely fashion.

Finally, I would suggest that the commission's order include a requirement for progress updates and continued conversation so that it can remain actively engaged in the final location and completion of these units.

Q: Does this conclude your testimony?

A: Yes it does.

STATE OF NORTH DAKOTA

PUBLIC SERVICE COMMISSION

Northern States Power Company **Advance Determination of Prudence – NG Generators Application**	**Case No. PU-13-194**
Northern States Power Company **Red River Valley NG Units 1 & 2 – Hankinson, ND** **Public Convenience And Necessity**	**Case No. PU-13-195**

AFFIDAVIT OF SERVICE BY ELECTRONIC MAIL

STATE OF NORTH DAKOTA
COUNTY OF BURLEIGH

Sara Cardwell deposes and says that:

she is over the age of 18 years and not a party to this action and, on the **20th** day of **November, 2013,** she electronically mailed to **4** recipients, electronic copies of:

Direct Testimony of Mike Diller

The electronic mails were addressed as follows:

James.r.alders@xcelenergy.com
James Alders
Northern States Power Company

Dave.sederquist@xcelenergy.com
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Briggs and Morgan

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Alison C. Archer
Northern States Power Company

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

Sara Cardwell

Subscribed and sworn to before me
this **20th** day of **November, 2013.**

John G. Hamre
Notary Public

SEAL

JOHN G. HAMRE
Notary Public
State of North Dakota
My Commission Expires July 4, 2014