

Supplemental Direct Testimony and Schedules  
Christopher B. Clark

Before the Minnesota Public Utilities Commission  
State of Minnesota

In the Matter of the Application of Northern States Power Company  
for Authority to Increase Rates for Electric Service in Minnesota

Docket No. E002/GR-15-826  
Exhibit\_\_\_\_(CBC-1)

**Prairie Island Costs – Policy Considerations**

January 29, 2016

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## **Schedules**

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## I. INTRODUCTION

Q. PLEASE STATE YOUR NAME AND OCCUPATION.

A. My name is Christopher B. Clark. I am the President of Northern States Power Company – Minnesota (Xcel Energy or the Company).

Q. PLEASE SUMMARIZE YOUR QUALIFICATIONS AND EXPERIENCE.

A. I have over 20 years of experience in energy and regulation. I joined the Company in 1999 as a Senior Attorney and then served as a Managing Attorney for the Company. In that role, I was responsible for the Company's state public utility law and power purchase agreement issues for its operations in North Dakota, South Dakota, Minnesota and Wisconsin. After that I had the role of Vice President, Regulatory in which I was responsible for regulatory matters for the Company in the states of North Dakota, South Dakota and Minnesota. In December 2014, I was appointed to the position of President of the Company. In my current role, I am accountable for the overall planning and performance of the Company, with direct oversight of the customer, community, regulatory, and legislative areas. A summary of my qualifications is included as Exhibit\_\_\_(CBC-1), Schedule 1.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to provide a discussion of policy considerations related to expenditures at the Prairie Island nuclear generating facilities, including those related to our Life Cycle Management (LCM) efforts.

With our October 2, 2015 Reply Comments in our Integrated Resource Plan (IRP) (Docket No. E002/RP-15-21), we initiated a dialogue about the long-

1 term future costs for the Prairie Island nuclear generating units. Based on the  
2 feedback we received from regulators and stakeholders, we appreciate there is  
3 an interest in advancing this dialogue. Prairie Island and Monticello are key  
4 components to achieving 60 percent carbon emission reduction by 2030 in a  
5 safe, reliable and cost competitive manner, providing our customers with a  
6 diverse fuel supply, and supporting our proposed transition of our coal fleet to  
7 renewable generation.

8  
9 In my testimony in this case, I first discuss the Company's vision and the role  
10 of nuclear generation in our long-term plans. I also provide context for the  
11 cost recovery decision in this rate case and how it is separate from the longer-  
12 term discussion about the future costs and continuing role of Prairie Island  
13 that is being addressed in our IRP.

14  
15 With our Direct and Supplemental Testimony, the Company provides a record  
16 that supports approving recovery of the LCM costs at Prairie Island under our  
17 three- or five-year multi-year rate plan proposals, as included and supported in  
18 our rate case application. As a result, Xcel Energy requests the Commission  
19 approve the overall costs for Prairie Island in the rate case, without  
20 conditioning that approval on longer-term resource planning decisions, as  
21 doing so will result in just and reasonable rates.

22  
23 Contemporaneously with the filing of Supplemental Testimony in this  
24 proceeding, we are also submitting Supplemental Comments in the IRP  
25 proceeding. Our Supplemental Comments address the out-year changes to  
26 the costs for Prairie Island, discuss the long-term benefits of continuing to  
27 operate Prairie Island and Monticello, and show that operating Prairie Island

1 through its existing license remains cost effective. While our IRP addresses  
2 future increases in our capital cost projections for Prairie Island, it also shows  
3 that our fixed operating and maintenance costs are less than we anticipated,  
4 which more than offsets the capital increases over the 2008-2015 time frame.  
5 Because we discuss Prairie Island costs in both proceedings, my testimony  
6 provides a roadmap of our discussion in each proceeding in an effort to have  
7 the right conversation in the right docket.

8  
9 Much has changed since we initiated the process to extend the license life for  
10 Prairie Island in 2008. Gas prices have changed significantly, federal and state  
11 energy policy have placed greater emphasis on lower carbon emitting – if not  
12 carbon free – resources, and there are greater efforts around exploring the  
13 potential of distributed generation and battery technology. We believe  
14 operating our nuclear fleet balances all of these changes and positions our  
15 customers and the State well for the future. We appreciate that there are a  
16 variety of opinions and not all stakeholders may reach the same conclusion,  
17 and in our IRP proceeding we are engaged in a long-term conversation about  
18 the role of nuclear in our broader generation portfolio. To ensure we can plan  
19 in a meaningful way, we must recover the costs associated with the  
20 representative investments needed to maintain Prairie Island as a safe, reliable  
21 asset.

22  
23 Q. DID YOU PROVIDE DIRECT TESTIMONY ON THIS TOPIC IN THE COMPANY'S  
24 INITIAL APPLICATION?

25 A. No. My Supplemental Testimony here specifically responds to the  
26 Commission's December 22, 2015 Notice and Order for Hearing.

1 Q. DO OTHER COMPANY WITNESSES PROVIDE TESTIMONY ADDRESSING THE  
2 COMMISSION'S ORDER?

3 A. Yes. Three other witnesses provide Supplemental Direct Testimony  
4 supporting the Prairie Island LCM costs included in our rate case proposal:

- 5 • *Scott Weatherby* provides the financial detail regarding the Company's  
6 expected, actual, and forecasted capital expenditures for Prairie Island  
7 LCM activities from 2008 through 2020.
- 8 • *Timothy O'Connor* addresses the operational aspects of Prairie Island LCM  
9 work from 2016 through 2020, supporting the reasonableness of the costs  
10 we expect to incur between 2016 and 2020.
- 11 • *John Reed* discusses how our Prairie Island LCM costs are consistent with  
12 experience across the industry, and supports that continued investment in a  
13 cost-effective resource like Prairie Island makes sense over the next three-  
14 to five- years.

15  
16 Q. HOW IS THE REMAINDER OF YOUR TESTIMONY ORGANIZED?

17 A. In Section II, I discuss the Company's long-term strategic vision and the  
18 importance of nuclear generation in our plans. Section III provides our  
19 perspective on the appropriate discussion and consideration of costs in our  
20 rate case versus the IRP. Section IV summarizes my testimony.

21  
22 **II. COMPANY VISION AND THE ROLE OF NUCLEAR**

23  
24 Q. WHAT IS THE PURPOSE OF THIS SECTION OF YOUR TESTIMONY?

25 A. I provide context about the role our nuclear generating units play in Xcel  
26 Energy's long-term strategic vision.

1 Q. PLEASE EXPLAIN XCEL ENERGY'S LONG-TERM STRATEGIC VISION.

2 A. As a business that provides a service our customers rely upon day-in and day-  
3 out, we start and end with providing safe, reliable service at a competitive  
4 price.

5  
6 From that foundation, we are expanding to be more customer-centric by  
7 empowering the communities and customers we serve to meet their energy  
8 goals. For example, we have entered into the Clean Energy Partnership with  
9 the City of Minneapolis, we are providing our expertise to the City of St. Paul  
10 in its efforts to re-purpose the Ford manufacturing site, and we have proposed  
11 an innovative wind and solar product with our Renewable Connect tariff.

12  
13 Our long-term vision also includes ensuring our infrastructure is safe and  
14 dynamic by investing in grid security and smart grid technologies. To that  
15 end, we are working on a battery-solar demonstration project at our Belle  
16 Plaine Substation. We discuss this, as well as our overall grid modernization  
17 efforts, in our biennial grid modernization report in Docket No. E002/M-15-  
18 962.

19  
20 Lastly, we are exploring and embracing the evolution of the utility industry  
21 through emerging technologies and distributed generation. We are doing so  
22 through our participation in innovative groups like e21.

23  
24 Q. HOW DOES THE CURRENT IRP FIT INTO THE COMPANY'S STRATEGIC VISION?

25 A. With our October 2, 2015 Reply Comments in our pending IRP proceeding,  
26 we set forth a bold plan for achieving 60 percent carbon emission reduction  
27 by 2030. Importantly, this plan begins the transition of coal off our system

1 while preserving reliability and affordability. Additionally, our plan puts us on  
2 a path that could enable us to achieve 80 percent carbon emission reduction  
3 by 2050. This plan allows us to further this State's energy policy goals, and to  
4 serve our customers reliably and safely with a cleaner and greener fleet,  
5 positioning us well for years to come.

6  
7 Q. WHAT IS THE ROLE OF NUCLEAR GENERATION IN XCEL ENERGY'S STRATEGIC  
8 VISION?

9 A. In our October 2 Reply Comments, we stated our preference to operate the  
10 Monticello and Prairie Island nuclear generating units to the end of their  
11 respective licensed lives. Our nuclear generating units provide reliable,  
12 carbon-free generation that is necessary to accomplish 60 percent carbon  
13 emission reduction by 2030. Additionally, nuclear generation provides much  
14 needed resource diversity and anchors our system by providing large baseload  
15 generation, which is needed as we begin our transition away from coal  
16 generation.

17  
18 Q. HOW DOES THE COMPANY'S PROPOSAL IN THIS RATE CASE COMPLEMENT  
19 XCEL ENERGY'S STRATEGIC VISION?

20 A. Accomplishing our strategic vision will require innovation, cultural evolution,  
21 a strong and supportive regulatory compact, and significant capital  
22 investments. A constructive outcome related to the three- or five-year multi-  
23 year rate plan we have proposed in this rate case provides certainty to the  
24 Company and its investors as we move forward, to the benefit of our  
25 customers. Company witness Mr. Aakash H. Chandarana discusses this  
26 further in his Direct Testimony.

27



### III. PRAIRIE ISLAND LCM COST DISCUSSION ROADMAP

Q. WHAT IS THE PURPOSE OF THIS SECTION OF YOUR TESTIMONY.

A. While we are addressing costs at Prairie Island, including for LCM activities, in this rate case and the pending IRP proceeding, the purpose for each discussion is different. In this section, I provide our perspective on the discussion that is appropriate in each proceeding. Our goal is to facilitate the right discussion and consideration of costs in the right docket.

Q. DO YOU HAVE ANY INTRODUCTORY COMMENTS FOR THIS SECTION?

A. Yes. In our October 2 Reply Comments in the IRP proceeding, we informed our stakeholders that our capital expenditures and O&M expenses for Prairie Island are changing. Specifically, we stated, in regard to total plant costs for Prairie Island, “[o]ur five-year capital expenditure forecast from 2016 to 2020 has increased by roughly \$175 million above what was anticipated in 2012,” and “[w]e determined that operating the plant to the end of its current license would require substantial increases in capital for the period 2021 through 2034” which we estimated to be roughly \$600 to \$900 million over this fifteen-year period.

We provided this information in the IRP proceeding because (1) capital expenditures for Prairie Island are increasing, and (2) we wanted to engage in a forward-looking dialogue about the long-term implications of these escalating capital costs. We believe the IRP proceeding is the appropriate venue to bring this information forward because most of the cost changes are occurring in the next decade, which coincides with the timeframe we are proposing to begin the transition of our coal fleet. Based on the feedback we received since

1 bringing this information forward, there is interest in additional dialogue on  
2 this subject in both the IRP and our current rate case proceedings.

3  
4 Q. PLEASE DISCUSS THE INCREASED INTEREST IN PRAIRIE ISLAND LCM COSTS IN  
5 THIS RATE CASE.

6 A. While we provided information on total plant costs at Prairie Island through  
7 the end of its license period in the IRP, we also provided information in our  
8 rate case related to costs at Prairie Island during the term of our proposed  
9 multi-year rate plan, 2016-2020. The Commission's Order in our rate case  
10 proceeding requires us to further supplement the record regarding our LCM  
11 efforts at Prairie Island. Specifically, the Order requires us to file  
12 Supplemental Testimony and schedules that:

13  
14 a) Describe and compare projected and actual Life Cycle Management  
15 costs (and, to the extent relevant, Extended Power Uprate costs)  
16 from 2008 through 2020 by generating unit and year, including the  
17 proposed 2016 test year in this rate case, and the 2017 and 2018  
18 plan years. The descriptions and comparisons should include all  
19 changes and updates to projected costs from 2008 on and should  
20 include all cites to relevant certificate of need, resource plan, and  
21 general rate case dockets.

22  
23 b) Compare the relevant parts of the proposed 2016 test year, the  
24 2017 plan year, and the 2018 plan year to the proposed five-year  
25 capital budget in the Company's pending resource plan, docket E-  
26 002/RP-15-21.

27  
28 Q. DOES THE ORDER PROVIDE ADDITIONAL DIRECTION ABOUT PRAIRIE ISLAND  
29 LCM?

30 A. Yes. The Commission's Order also noted its expectation that it would  
31 consider:

1 8) Whether, in light of the following factors, the amounts authorized  
2 for cost recovery in 2016 test year and the 2017 and 2018 plan years  
3 should be considered provisional or placeholder amounts until the  
4 Commission makes a determination on the prudence of the Life  
5 Cycle Management costs at the Prairie Island plant: (a) Xcel's  
6 pending submission of a Nuclear Scope Study in its January 29,  
7 2016 supplemental comments in its resource plan, docket E-  
8 002/RP-15-21; and (b) the possibility that there will not be  
9 adequate time to fully investigate and determine the prudence of  
10 these costs in this rate case.  
11

12 Q. DO YOU BELIEVE THE COMMISSION NEEDS TO MAKE AN IRP DECISION  
13 BEFORE APPROVING RECOVERY OF PRAIRIE ISLAND COSTS IN THIS RATE CASE?

14 A. No. While we are confident that continued nuclear operations is in the best  
15 interest of our customers as part of our current preferred plan in the IRP, our  
16 request to recover costs for Prairie Island in the rate case is not dependent on  
17 any decisions the Commission may make related to the longer-term future of  
18 nuclear. As I will discuss further below, our rate case filings and our  
19 Supplemental IRP Comments support this conclusion.  
20

21 Q. HOW DO XCEL ENERGY'S RATE CASE FILINGS SUPPORT A RATE CASE DECISION  
22 REGARDING PRAIRIE ISLAND?

23 A. As it pertains to capital investments, rate cases with forward-looking test years  
24 evaluate whether the decisions to invest are prudent and will ultimately result  
25 in just and reasonable rates. Regulatory prudence is applied to decisions and  
26 plans made by a management team in light of the best information that is  
27 available to that team at the time the decisions are made. This standard  
28 applies to the investments included in the rate case, and our filings provide the  
29 information necessary to support Commission approval of recovery of these  
30 costs.  
31

1 The information we provided in our direct case is consistent with what we  
2 would normally provide when we seek recovery in a rate case. That is, we  
3 identified the capital investments we expect to place in service at Prairie Island  
4 over the term of the rate case. As Company witness Mr. Timothy J.  
5 O'Connor discussed in his Direct Testimony, all of the capital expenditures at  
6 Prairie Island, including those related to LCM, are needed to continue the safe  
7 and reliable operation of the plant in the near term. In his Supplemental  
8 Direct Testimony, Mr. O'Connor further explains that LCM related capital  
9 expenditures must occur in the next three to five years regardless of any  
10 decision changing the long-term operational horizon of Prairie Island.

11  
12 Q. IS THE COMPANY PROVIDING OTHER INFORMATION IN THIS PROCEEDING  
13 THAT SUPPORTS A DECISION IN THIS DOCKET INDEPENDENT OF THE IRP?

14 A. Yes, the information provided in Supplemental Direct Testimony by  
15 Company witnesses Mr. Scott L. Weatherby and Mr. John Reed further  
16 supports that the costs included in our rate case are reasonable and necessary  
17 regardless of a long-term decision about the future of Prairie Island.

18  
19 Mr. Weatherby addresses the additional total plant costs for Prairie Island that  
20 we identified in our October 2 IRP Reply Comments, specifically that our  
21 2016-2020 capital expenditure forecast for Prairie Island has increased by  
22 approximately \$175 million above what was anticipated in 2012. Mr.  
23 Weatherby explains that approximately half of that increase is for LCM  
24 projects, and the other half is for mandated compliance. The takeaway is the  
25 changes to our capital expenditures are not simply driven by LCM investments  
26 but by a number of other factors as well, including those experienced across

1 the industry. Mr. Reed addresses factors affecting nuclear costs on an  
2 industry-wide basis in his Supplemental Direct Testimony.

3  
4 In addition, Mr. Reed notes that the Company's 2008 Certificate of Need,  
5 2012 Changed Circumstances filing, and the 2015 IRP show that Prairie Island  
6 has been, and is projected to remain, a cost effective resource – even with the  
7 higher capital costs we are now projecting in the out-years – which further  
8 supports that investment in the plant over the next three to five years as  
9 presented in our rate case continues to make sense.

10  
11 Additionally, through 2015, we are under the overall cost estimate (i.e., capital  
12 and fixed O&M) set forth in the 2008 Certificate of Need. I believe this is  
13 important because it stands in contrast to our experience with the facts  
14 surrounding the Monticello LCM/Extended Power Uprate, where costs  
15 exceeded initial projections and were reviewed after the costs were incurred.  
16 While the expected costs for Prairie Island LCM efforts exceed our initial  
17 projections during the 2016-2020 timeframe, we have provided this cost  
18 information and support for the reasonableness of these expenditures in our  
19 direct case, in advance of incurring these costs. As a result, the Commission  
20 and stakeholders have an opportunity in this case to review the reasonableness  
21 of our forward-looking expenditures.

22  
23 Mr. Reed also supports the review of the investments at Prairie Island in this  
24 rate proceeding, to ensure that we can meaningfully plan for the future of  
25 Prairie Island without creating the potential for harm to our customers.  
26

1 Q. IF THE COMMISSION WERE TO APPROVE RECOVERY OF PRAIRIE ISLAND COSTS  
2 ON A PROVISIONAL BASIS, PENDING THE OUTCOME OF THE IRP, WOULD THAT  
3 ALLEVIATE YOUR CONCERNS ON THIS ISSUE?

4 A. No. Our nuclear plants have been, and continue to be, an important part of  
5 our generation fleet. The Commission has affirmed that these resources have  
6 been cost effective over the course of many prior proceedings. Nothing in  
7 our current assessment has caused us to contemplate any changes to our  
8 nuclear operations over the short term. Thus, for the reasons detailed in our  
9 Application and Supplemental Direct Testimony, we will have to make the  
10 investments at Prairie Island during the next three to five years.

11  
12 Provisional approval to recover LCM costs at Prairie Island in this case would  
13 also create both operational and financial uncertainty that would affect the  
14 Company and our customers. Provisional approval shifts significant risk to  
15 shareholders and creates difficulties related to the Company's ability to finance  
16 other projects. This can result in higher costs that are ultimately borne by our  
17 customers.

18  
19 Q. HOW DOES THE INFORMATION IN THE IRP FILING DIFFER FROM THE RATE  
20 CASE INFORMATION?

21 A. With our October 2 Reply Comments and our January 29 Supplemental  
22 Comments, we advanced a plan for achieving a 60 percent reduction of  
23 carbon emissions from 2005 levels by 2030. Our Current Preferred Plan  
24 accomplishes the carbon reduction in large part through early retirement of  
25 Sherco Units 1 and 2, adding over three GWs of renewable generation, and  
26 continuing to run our nuclear units. As explained, the vast majority of this  
27 activity will occur in 2021 and beyond. It is during this period that we project

1 the total capital expenditures at Prairie Island will increase by roughly \$600 to  
2 \$900 million when compared to 2012. Thus, these costs are not expected to  
3 be incurred until after the 2016 to 2020 time period under review in our  
4 current rate case.

5  
6 Based on what we know today operationally and technically, all of the  
7 elements of our plan must remain intact for it to work. Specifically, continued  
8 operation of our nuclear plants is what allows us to achieve the carbon  
9 emission reductions contemplated. In addition, our IRP filings demonstrate  
10 that operating Prairie Island through its existing license remains cost effective.  
11 We recognize, however, that this view is one of several that need to be  
12 considered in the IRP process. Since this is a long-term plan, we provided  
13 additional cost estimates about Prairie Island in our IRP to ensure the  
14 Commission and stakeholders have the necessary information to understand  
15 the impact of these changing costs on our plan and potential alternatives,  
16 including a meaningful discussion of potential off-ramps, should the costs at  
17 Prairie Island continue to change.

18  
19 Q. DO YOU HAVE ANY OTHER COMMENTS ABOUT THE THE COMPANY'S IRP  
20 FILINGS AND THE COMMISSION'S DECISION IN THE RATE CASE?

21 A. Yes. As we noted in our October 2 Reply Comments and January 29  
22 Supplemental Comments, the increase in capital expenditures at Prairie Island  
23 for the period 2016-2020 is off-set by decreases in O&M costs. This means  
24 the overall impact to our customers for this period is similar to what we  
25 projected in our 2012 Changed Circumstances proceeding.

26

1 Q. DO YOU BELIEVE THE COMMISSION SHOULD APPROVE RECOVERY OF THE  
2 PRAIRIE ISLAND LCM COSTS IN THIS CASE?

3 A. Yes. Based on the discussion above, we believe it is appropriate for the  
4 Commission to grant recovery of the Prairie Island LCM costs over the next  
5 three- or five-year period as presented in our direct case. Approval of these  
6 costs in this case would be consistent with what the Commission does in rate  
7 cases – that is, to analyze and determine the prudence and reasonableness of  
8 forward-looking investments during the rate case timeframe.

9  
10 **IV. CONCLUSION**  
11

12 Q. PLEASE SUMMARIZE YOUR TESTIMONY.

13 A. One of the Company's goals is to maximize the value of the nuclear plants on  
14 our system and ensure they continue to provide benefits to our customers.  
15 We have made significant investments in these plants over the course of their  
16 lives, and we know further investment will be needed. The Prairie Island  
17 LCM program costs included for recovery in our rate case are reasonable and  
18 necessary to continue safe and reliable operations. We have provided  
19 information in our Direct and Supplemental Testimony to support these  
20 investments. Further, these investments will be needed regardless of any long-  
21 term decision on the future of Prairie Island in our IRP proceeding.

22  
23 Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

24 A. Yes, it does.



**Christopher B. Clark**  
**President, Northern States Power Company – Minnesota**

Chris Clark is President of Northern States Power Company – Minnesota. He is responsible for the overall planning and performance of the Company, with direct oversight of the customer, community, regulatory and legislative areas.

Clark joined Xcel Energy in 1999 as a senior attorney. He was later appointed Managing Attorney, Northern States Power Company – Minnesota, an Xcel Energy company, with responsibility for the company's state public utility law and power purchase agreement issues for operations in Minnesota, North Dakota, South Dakota and Wisconsin. He represented Xcel Energy in regulatory proceedings before the Minnesota Public Utilities Commission and handled issues related to rate cases, renewable energy and long-term power purchase projects and supported retail product and programs, including conservation improvement programs. He has more than 20 years of experience in energy and regulation.

Clark serves on the board of directors for People Serving People and the Minnesota Chamber of Commerce.

Prior to joining Xcel Energy, he worked as an in-house attorney for Alliant Energy appearing for that company before public utility commissions in Iowa, Minnesota, Illinois and Wisconsin.

He received his B.A. from the University of Iowa and earned his law degree from Drake University.