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Direct Testimony and Schedules  
Allen D. Krug

**BEFORE THE OFFICE OF ADMINISTRATIVE HEARINGS**  
**FOR THE**  
**MINNESOTA PUBLIC UTILITIES COMMISSION**  
**STATE OF MINNESOTA**

IN THE MATTER OF AN APPLICATION      MPUC Docket Nos. E002/GR-12-961  
OF NORTHERN STATES POWER    E002/GR-13-868  
COMPANY FOR AUTHORITY TO  
INCREASE RATES FOR ELECTRIC  
SERVICE IN THE STATE OF MINNESOTA

IN THE MATTER OF THE REVIEW OF    E999/AA-13-599  
THE ANNUAL AUTOMATIC    E999/AA-14-579  
ADJUSTMENT REPORTS FOR ALL    E999/AA-16-523  
ELECTRIC UTILITIES    E999/AA-17-492  
    E999/AA-18-373

OAH Docket No. 65-2500-38476

DIRECT TESTIMONY OF

ALLEN D. KRUG

On Behalf of

NORTHERN STATES POWER COMPANY

June 16, 2023

Exhibit\_\_\_\_(ADK-1)

**Policy**

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**I. INTRODUCTION AND QUALIFICATIONS**

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Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Allen D. Krug. My business address is 414 Nicollet Mall, Minneapolis, Minnesota 55401.

Q. BY WHOM ARE YOU EMPLOYED AND WHAT IS YOUR POSITION?

A. I am the Associate Vice President, State Regulatory Policy for Northern States Power Company – Minnesota, d/b/a Xcel Energy (Xcel Energy or the Company).

Q. FOR WHOM ARE YOU TESTIFYING?

A. I am testifying on behalf of the Company.

Q. PLEASE SUMMARIZE YOUR QUALIFICATIONS AND EXPERIENCE.

A. I have worked for Xcel Energy since 1998, initially as a Manager of Renewable Energy and Energy Contract Coordinator. I then served as a Regulatory Consultant for a number of years before becoming Regional Vice President, Regulatory Administration in 2008. I began my current position in 2013. Prior to joining the Company, I worked for over a decade at the Minnesota Department of Commerce (Department), first as a Statistical Analyst and later as a Supervisor in the Electric Regulatory Unit. My qualifications and experience are more fully described in Exhibit\_\_\_(ADK-1), Schedule 1.

Q. WHAT ARE YOUR CURRENT RESPONSIBILITIES?

A. In my current role, I develop regulatory strategy for Xcel Energy across North Dakota, South Dakota, and Minnesota.

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1 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?

2 A. I am the Company's policy witness in this proceeding, and in that role, I present  
3 the Company's overall case to the Minnesota Public Utilities Commission  
4 (Commission), requesting closure of this matter without further action. I begin  
5 by explaining how this contested case came about, over a decade after a  
6 November 2011 event (Event) at the Sherco generating plant that resulted in an  
7 extended outage of Unit 3. I also discuss the central issue in this case, namely,  
8 the prudence standard and how it applies to the Company's actions relevant to  
9 this proceeding. To inform the Administrative Law Judge's recommendation  
10 and the Commission's decision in this matter, I then provide background on  
11 this case, including a brief summary of the Event at the Sherco generating plant  
12 that resulted in an extended outage of Unit 3, and subsequent actions taken by  
13 the Company and others related to the Event. Other Company witnesses will  
14 provide more detailed information on several of these matters.

15

16 As I and other Company witnesses will discuss, the Company's actions with  
17 respect to Unit 3, both prior to and following the Event, have been reasonable  
18 and consistent with sound utility practice. In addition, our actions and  
19 Commission action with respect to the Event and to the restoration of Unit 3  
20 have ensured that only prudently-incurred costs have been passed on to Xcel  
21 Energy customers, meaning no additional action by the Commission is  
22 appropriate. Finally, I introduce each of the Company's witnesses in this  
23 proceeding, identifying the subject matters of their testimonies.

24

25 Q. HOW IS THE REMAINDER OF YOUR TESTIMONY STRUCTURED?

26 A. My testimony covers the following topics:

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- 1           • *Section II:* I address the issue to be decided in this case, the prudence  
2           standard, and the policy considerations that should guide the resolution  
3           of this matter.
- 4           • *Section III:* I provide background information on the November 2011  
5           Event, the Company’s insurance recoveries following the Event, the  
6           litigation and resulting settlement the Company reached with Unit 3’s  
7           turbine manufacturer General Electric (GE), the litigation between the  
8           Company’s insurer and GE, and the various regulatory actions that  
9           have taken place since the Event.
- 10          • *Section IV:* I introduce the Company’s other witnesses, describing the  
11          topics they address.

**II. CASE OVERVIEW**

- 12
- 13
- 14
- 15 Q. PLEASE FIRST EXPLAIN HOW THIS CASE CAME ABOUT AND WHY THERE ARE STILL  
16 ISSUES SURROUNDING AN EVENT THAT HAPPENED NEARLY TWELVE YEARS AGO.
- 17 A. As discussed more below, the Commission first addressed the Event in the  
18 Company’s 2012 electric rate case, Docket No. E002/GR-12-961. That case  
19 was filed on November 2, 2012, approximately a year after the Event, and used  
20 a 2013 test year. When decided by the Commission in late summer of 2013,  
21 Unit 3 had been off-line since the Event but was about to return to service. In  
22 that case, the Commission disallowed recovery of all direct costs associated with  
23 Unit 3 other than property taxes, and allowed deferral of Unit 3’s depreciation  
24 expense. The Commission deferred any decision related to replacement power

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1 costs, indicating that those costs “may be examined in the Company’s next fuel  
2 clause adjustment filing.”<sup>1</sup>

3  
4 In the Company’s next rate case, Docket No. E002/GR-13-868, the  
5 Commission specifically found that the 2012 and 2013 fuel clause adjustment  
6 (FCA) dockets (Docket Nos. E999/AA-12-757 and E999/AA-13-599) were  
7 the appropriate dockets to address the costs associated with the Event,  
8 including the costs of replacement power.<sup>2</sup> However, in those FCA dockets, the  
9 Department of Commerce (Department) and Office of the Attorney General  
10 (OAG) argued that the Commission should not make any findings regarding  
11 replacement power costs associated with the Event until litigation between the  
12 Company and GE had concluded. The Commission ultimately agreed with the  
13 Department and OAG and, in a June 2016 Order, deferred any decision on  
14 replacement power costs.<sup>3</sup>

15  
16 On November 2, 2018, the Company filed an update with the Commission  
17 stating that the Company and GE had reached a settlement and proposed to  
18 refund the settlement proceeds to customers. The Commission subsequently  
19 took comments on the Company’s refund proposal and on what, if any, further  
20 action the Commission should take regarding the costs associated with the  
21 Event. The Department argued that the Commission should approve the

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<sup>1</sup> *In the Matter of the Application of Northern States Power Company for Authority to Increase Rates for Electric Service in the State of Minnesota*, Docket No. E002/GR-12-961, FINDINGS OF FACT, CONCLUSIONS OF LAW AND ORDER at 23 (September 3, 2013).

<sup>2</sup> *In the Matter of the Application of Northern States Power Company for Authority to Increase Rates for Electric Service in the State of Minnesota*, Docket No. E002/GR-13-868, FINDINGS OF FACT, CONCLUSIONS OF LAW AND ORDER at 47 (May 8, 2015).

<sup>3</sup> Docket Nos. E999/AA-12-757, E999/AA-13-599, ORDER ACTING ON ELECTRIC UTILITIES’ ANNUAL REPORTS AND REQUIRING ADDITIONAL FILINGS at 5-6 (June 2, 2016).

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1 Company's refund proposal, with a slight modification, but should also require  
2 a refund of a portion of the replacement power costs. In contrast, the OAG  
3 recommended approving the refund, but again recommended that the  
4 Commission withhold judgement on the prudence of the replacement power  
5 costs, given that civil litigation between the Company's insurer and GE  
6 regarding the Event was continuing. The Commission again decided to defer  
7 any decision on replacement power costs and required additional information  
8 and updates from the Company.<sup>4</sup>

9  
10 In a May 2020 compliance filing, the Company noted that all litigation between  
11 the Company's insurer and GE had concluded. In further filings in August 2020  
12 and January 2021, the Company provided additional information regarding the  
13 costs and recoveries related to the Event. In those filings, the Company  
14 requested the Commission reject the recommendation of the Department (now  
15 joined by the OAG) that the Commission order a refund of a portion of the  
16 replacement power costs incurred in 2012 and 2013, while Unit 3 was out of  
17 service, and close these dockets. In the alternative, the Company requested this  
18 matter be referred to the Office of Administrative Hearings for further record  
19 development. Finally, in July 2021, the Commission issued its Notice and Order  
20 for Hearing, initiating this proceeding.

21  
22 Q. HOW DID THE COMMISSION DESCRIBE THE CENTRAL ISSUE TO BE DECIDED IN  
23 THIS CASE?

---

<sup>4</sup> Docket Nos. E999/AA-18-373 et al., ORDER AUTHORIZING SHERCO UNIT 3 RATEPAYER REFUND AMOUNT AND METHOD AND REQUIRING COMPLIANCE FILING at 3-4 (APRIL 11, 2019).

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1 A. In its July 13, 2022 Notice and Order for Hearing in this matter, the  
2 Commission framed the central issue as “whether Xcel [Energy]’s Sherco 3  
3 energy replacement costs for the period November 2011 to October 2013 were  
4 reasonable and prudent.”<sup>5</sup>

5  
6 Q. WHAT DOES IT MEAN FOR A UTILITY’S ACTIONS OR DECISIONS TO BE  
7 “REASONABLE AND PRUDENT?”

8 A. A regulatory agency such as the Commission determines prudence by examining  
9 whether, based on the information a utility had or reasonably should have had,  
10 it made reasonable decisions and took reasonable actions. The utility bears the  
11 burden of demonstrating the prudence of its decisions and actions by a  
12 preponderance of the evidence.<sup>6</sup>

13  
14 By its nature, the prudence standard recognizes that a range of actions may be  
15 reasonable.<sup>7</sup> In addition, prudence is *not* determined by looking backward and  
16 considering an end result that was not known at the time a decision was made.  
17 Rather, prudence is determined by considering what a reasonable utility in  
18 similar circumstances would have done. As the Commission has stated:

19           Generally, prudence is reasonable action taken in good faith based on  
20           knowledge available at the time of the action or decision. Actions  
21           taken in good faith are those taken without malicious intent, exercising  
22           the care that a reasonable person would exercise under the same

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<sup>5</sup> Notice and Order For Hearing at 10.

<sup>6</sup> See Minn. Stat. § 216B.16, Subd. 4 (“The burden of proof to show that the rate change is just and reasonable shall be upon the public utility seeking the change.”); *also* Minn. R. 1400.7400, Subp. 5 (“The party proposing that certain action be taken must prove the facts at issue by a preponderance of the evidence, unless substantive law provides a different burden or standard.”).

<sup>7</sup> See, e.g., *In the Matter of the Petition of Xcel Northern States Power Company d/b/a Xcel Energy to Recover February 2021 Natural Gas Costs*, MPUC Docket No. G002/CI-21-610, ORDER DISALLOWING RECOVERY OF CERTAIN NATURAL GAS COSTS AND REQUIRING FURTHER ACTION at 42 (Oct. 19, 2022) (“The Commission concurs that Xcel [Energy]’s financial hedging strategy leading up to the event was within the range of prudent conduct for a similarly situated utility under the circumstances.”)



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1           circumstances at the time the decision was made. Prudence is not  
2           evaluated using the benefit of hindsight.<sup>8</sup>  
3

4    Q.   HOW DOES THE PRUDENCE STANDARD APPLY IN THIS CASE?

5    A.   Again, the Commission has framed the central question in the case as “whether  
6           Xcel [Energy]’s Sherco 3 energy replacement costs for the period November  
7           2011 to October 2013 were reasonable and prudent.” Answering that question,  
8           in turn, requires answering two other primary questions.

9  
10       First, the Commission will need to determine whether, leading up to the Event,  
11       the Company operated and maintained Unit 3 consistent with sound utility  
12       practices, based on the information it had or reasonably should have had at the  
13       time. If so – in other words, if the Company properly operated and maintained  
14       the plant and did not have a reasonable basis to anticipate this catastrophic  
15       failure – then the Company should be allowed recovery of the costs necessary  
16       to continue providing energy to its customers while Unit 3 was off-line and out  
17       of the Company’s rate base. With hindsight, it can be easy to second-guess prior  
18       decisions – particularly after over ten years have passed. However, the prudence  
19       standard does not allow hindsight and does not require perfection. Rather, it  
20       requires an analysis of the information available to the Company at the time,  
21       and whether the decisions made, and the actions taken based on that  
22       information, were within the range of reasonable actions a responsible utility  
23       manager could have been expected to take. Multiple Company witnesses  
24       provide information regarding the Company’s operations, maintenance and  
25       inspection practices with respect to Unit 3, including Company witnesses Mark

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<sup>8</sup> *Id.* at 5.

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1 W. Kolb, Timothy P. Murray, Herbert J. Sirois, David G. Daniels and Anthony  
2 A. Tipton.

3  
4 Second, regardless of the Commission's determination on the prudence of the  
5 Company's operation and maintenance of Unit 3 prior to the Event, it is  
6 reasonable for the Commission to examine whether the Company reasonably  
7 mitigated the costs that would be passed on to customers following the Event.  
8 This entails examining whether the Company reasonably sought out insurance  
9 coverage, including replacement power coverage; reasonably pursued, and  
10 returned to customers, insurance or other third-party recovery following the  
11 Event; and worked reasonably to return the plant to service and acquire  
12 replacement power while performing that work. If the Company acted  
13 reasonably on these matters, there is no basis upon which to require further  
14 refunds to customers. Company witness Mr. Robert L. Miller addresses the  
15 Company's insurance practices and recoveries and I address the Company's  
16 recovery directly from GE, while Company witness Mr. Darin W. Schottler  
17 discusses the Company's work to restore Unit 3 to service and the benefits that  
18 work has provided to customers and Company witness Nicholas Detmer  
19 discusses the Company's acquisition of replacement power as that work was  
20 conducted.

21  
22 As this testimony will demonstrate, the Company acted reasonably and  
23 consistent with sound utility practices throughout the relevant time period of  
24 the Event and no further Commission action is required.

25  
26 Q. WHAT CHALLENGES DOES THE COMMISSION FACE IN MAKING DECISIONS ON  
27 THE PRUDENCE OF THE COMPANY'S ACTIONS RELATED TO THE EVENT?

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1 A. Since proper application of the prudence standard prohibits applying hindsight,  
2 the Commission needs to put itself in the shoes of the Company twelve years  
3 or more ago. The mere passage of time makes that task challenging, at best.  
4 However, the Company has worked to provide witnesses (some now retired)  
5 with direct knowledge of the Company's actions, decisions and the events that  
6 occurred these many years ago. The Company also re-engaged expert witnesses  
7 originally engaged after the Event and for purposes of litigation against GE  
8 (which subsequently settled, as I discuss more below), to provide their outside  
9 expert opinions on certain key matters. The Company has made its best efforts  
10 to fully respond to detailed and voluminous discovery requests, providing  
11 literally tens of thousands of pages of materials to the parties in this proceeding  
12 and has invested substantial time in working to minimize the amount of that  
13 information which requires non-public designation. Again, the Company has  
14 confidence that a full and fair review of this testimony and additional materials  
15 will demonstrate the Company has met its burden to show that it acted  
16 reasonably and consistent with sound utility practices throughout the relevant  
17 time period of the Event and no further Commission action is required.

18  
19 Q. WHAT IF THE COMMISSION DISAGREES AND FINDS THE COMPANY DID NOT ACT  
20 PRUDENTLY WITH RESPECT TO THE EVENT?

21 A. If the Commission disagrees with the Company's experts and determines that  
22 the Company was not prudent, either in the operation and maintenance of Unit  
23 3, with respect to insurance and other recovery-related issues, or regarding the  
24 costs incurred as a result of the Event, the question then becomes what, if any,  
25 net incremental costs were passed on to customers due to those identified  
26 imprudent actions – particularly when considering the costs already imposed on

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1 the Company by prior Commission action, and other costs avoided or benefits  
2 received by customers due to the Company's actions.

3  
4 With regard to this question, Mr. Detmer addresses the net cost of replacement  
5 power paid by customers, while multiple Company witnesses address why those  
6 net costs were appropriately included in those customers' rates, considering  
7 otherwise prudent costs the Company would have incurred but avoided, based  
8 on its management of both the Event and overall risk. For example, in response  
9 to arguments raised by the Department of Commerce in the Company's 2013  
10 rate case and by the Office of the Attorney General in January, 2021 comments  
11 filed in these dockets, Mr. Miller explains why the decision to not carry  
12 replacement power insurance coverage was reasonable, and also discusses the  
13 costs that would have been incurred for such coverage, had the Company  
14 acquired it – costs customers did not bear but that must be factored into any  
15 determination of net costs. In addition, Mr. Schottler discusses the benefits  
16 customers received due to the restoration work that was funded by insurance  
17 proceeds – benefits customers would not have otherwise received. Only by  
18 considering this full picture can the Commission determine whether or not  
19 customers bore additional costs due to the Event.

20  
21 **III. BACKGROUND**

22  
23 **A. November 2011 Event and Associated Costs**

24 Q. PLEASE BRIEFLY DESCRIBE THE EVENT THAT OCCURRED IN NOVEMBER 2011  
25 WITH THE SHERCO UNIT 3 TURBINE GENERATOR.

26 A. As other witnesses will discuss in more detail, on November 19, 2011, Unit 3  
27 of the Sherburne County Generating Station (Sherco Unit 3) experienced a

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1 catastrophic event in one of the low-pressure turbines. Several blades in that  
2 turbine dislodged from the rotor during a mandatory high-speed test of the  
3 turbine following a planned outage. An explosion-like event on the turbine floor  
4 resulted that substantially destroyed Unit 3's two low-pressure turbines, its high-  
5 and intermediate-pressure turbines, and the generator. It also resulted in  
6 significant damage to the control room and other facilities at the plant due to  
7 flying debris and fire. Fortunately, no one was injured, but the Event caused an  
8 extended outage of Unit 3, while the Company worked diligently to restore the  
9 plant to service.

10  
11 Q. WHAT ARE THE TOTAL COSTS INCURRED BY THE COMPANY DUE TO THE  
12 EVENT?

13 A. There are three primary categories of costs incurred by the Company due to the  
14 Event: restoration costs (i.e., the cost of replacing and repairing the Unit),  
15 replacement power costs (the net impact on the Company's costs of energy  
16 during the November 2011 to October 2013 time period when Unit 3 was  
17 unavailable) and excess fuel oil costs (excess fuel oil was consumed during the  
18 initial startup of Unit 3 following repairs). While the restoration and excess fuel  
19 oil costs can be determined with precision, the replacement power costs must  
20 be estimated, as explained by Mr. Detmer. The total costs incurred by the  
21 Company are shown in Table 1.<sup>9</sup>

---

<sup>9</sup> This Table presents the estimate of replacement power costs developed by Mr. Detmer for purposes of the Company's litigation against GE, which Mr. Detmer indicates is a superior estimate of these costs, rather than the Company's more simplistic estimate developed for the annual automatic adjustment (AAA) filing.

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Table 1

**Event-Related Costs**

**(presented on a Minnesota electric jurisdictional basis)<sup>10</sup>**

<u>Category</u>	<u>Costs</u>
Restoration Costs	\$104.3 million
Replacement Power Costs	\$33.7 million
Excess Fuel Oil Costs	\$0.4 million
Total Event-Related Costs	\$138.4 million

Q. HAVE THE MAJORITY OF THESE COSTS BEEN RECOVERED FROM THIRD PARTIES AND CREDITED TO XCEL ENERGY CUSTOMERS?

A. Yes. As Mr. Miller and I discuss, the Company recovered virtually all of the restoration and excess fuel oil costs from its insurance providers. In addition, the Company recovered funds from GE through a confidential settlement. All of those funds have been credited to customers. In addition, as I discuss below, the Commission has already disallowed cost recovery of Sherco Unit 3 costs in the Company's 2012 rate case, Docket No. E002/GR-12-961.

Q. SO WHAT COSTS ARE AT ISSUE IN THIS PROCEEDING?

A. In that 2012 rate case and the Company's subsequent Annual Automatic Adjustment (AAA) filings, the Commission specifically left open the question of the costs of replacement power.<sup>11</sup> Those costs were included in and have

---

<sup>10</sup> Sherco Unit 3 is co-owned with Southern Minnesota Municipal Power Authority (SMMPA) and costs are allocated approximately 41 percent to SMMPA and 59 percent to NSP. The Minnesota jurisdiction is allocated approximately 74 percent of NSP Total Company costs. For clarity of the impact of the Event on the Company and our Minnesota customers, throughout the Company's testimony, we provide only Minnesota electric jurisdictional numbers, unless otherwise noted.

<sup>11</sup> *In the Matter of the Application of Northern States Power Company for Authority to Increase Rates for Electric Service in the State of Minnesota*, Docket No. E002/GR-12-961, FINDINGS OF FACT, CONCLUSIONS OF LAW AND ORDER at 23 (September 3, 2013).

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1       been recovered through the monthly fuel clause charge. Therefore, if the  
2       Commission now determines some or all of those costs were not prudently  
3       incurred, a refund could be required, to the extent those costs were not offset  
4       by other benefits to customers.

5  
6       **B.     Insurance Recoveries and Restoration Work**

7       Q.   FOLLOWING THE EVENT, DID THE COMPANY PURSUE INSURANCE RECOVERIES?

8       A.   Yes. The Company worked diligently to maximize its collection of insurance  
9       proceeds from various insurers, and Xcel Energy recovered approximately  
10      \$99.2 million (on a Minnesota jurisdictional basis) to fund the repairs needed to  
11      get the plant back in service and to reimburse the Company for excess fuel oil  
12      costs. Mr. Miller provides more discussion of the Company's efforts, and we  
13      filed a full report on insurance recoveries in the 2012 and 2013 rate case dockets  
14      that are included in this proceeding, Docket Nos. E002/GR-12-961 and  
15      E002/GR-13-868.

16  
17      Q.   HOW DID CUSTOMERS RECEIVE THE BENEFIT OF THOSE PROCEEDS?

18      A.   In the Company's 2013 rate case, the Company committed to ensuring that no  
19      repair costs reimbursed by insurance were also recovered from our customers.  
20      The Commission effectuated that commitment by requiring the Company to  
21      include all Sherco Unit 3 insurance proceeds as an offset to rate base in that  
22      case.<sup>12</sup> In addition, the Company returned the recovery for excess fuel oil costs  
23      to customers in its May 2015 fuel clause adjustment.

---

<sup>12</sup> *In the Matter of the Application of Northern States Power Company for Authority to Increase Rates for Electric Service in the State of Minnesota*, Docket No. E002/GR-13-868, ORDER REOPENING, CLARIFYING, AND SUPPLEMENTING MAY 8, 2015 ORDER at 12-13 (August 31, 2015).

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1 Q. IS THERE ANOTHER WAY IN WHICH CUSTOMERS BENEFITTED FROM THE WORK  
2 PERFORMED TO RESTORE SHERCO UNIT 3 TO IN-SERVICE STATUS?

3 A. Yes. Because the investments the Company made in the plant to restore it and  
4 return it to service were almost entirely covered by insurance proceeds that  
5 offset such investments in rate base, customers effectively received the benefit  
6 of a newly-refurbished unit at nearly no cost. Mr. Schottler discusses this issue  
7 in more detail, including how the restoration work has provided benefits to  
8 customers over the past several years.

9

10 **C. Litigation and the GE Settlement**

11 Q. DID THE COMPANY ALSO PURSUE CLAIMS DIRECTLY AGAINST GE?

12 A. Yes. On November 15, 2013, the Company, along with the joint owner of  
13 Sherco Unit 3, SMMPA, and insurers of Sherco Unit 3, filed a joint complaint  
14 against GE (the Lawsuit). The complaint, as amended on January 27, 2014,  
15 sought to recover costs associated with the Event. Ultimately, the Company  
16 settled the Lawsuit with GE. Under the terms of the confidential settlement,  
17 GE made a payment to the Company that the Company proposed be credited  
18 in its entirety to customers, and the Company's claims against GE were  
19 dismissed.

20

21 Q. HOW DID XCEL ENERGY ENSURE THE ENTIRETY OF THE GE PAYMENT FLOWED  
22 THROUGH TO CUSTOMERS?

23 A. The Company proposed applying the GE payment as a credit to its monthly  
24 fuel clause adjustment in February 2019. In its April 11, 2019 Order Authorizing  
25 Sherco Unit 3 Ratepayer Refund Amount and Method and Requiring  
26 Compliance Filing in these dockets, the Commission agreed with the  
27 Company's proposal.



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1 Q. DID THE COMPANY ACT REASONABLY IN SETTLING THE LAWSUIT?

2 A. I believe so. While I was not involved in the Lawsuit or in the Settlement, I  
3 would note that the Company's insurer Aegis did not settle its claims against  
4 GE and instead went to trial on claims of willful and wanton negligence, gross  
5 negligence, and post-sale duty to warn (the Aegis Litigation). Aegis did not  
6 prevail, so ended up receiving no payment from GE. In contrast, Xcel Energy  
7 customers received a refund of the settlement amount paid by GE to the  
8 Company.

9

10 Q. DOES THE FACT THAT AEGIS DID NOT PREVAIL IN ITS LITIGATION AGAINST GE  
11 HAVE ANY BEARING ON THE ISSUES IN THIS CASE?

12 A. No. Again, the Company settled with GE, and its claims were dismissed.  
13 Therefore, the Company was not a party to the Aegis Litigation and the Aegis  
14 Litigation did not concern whether or not Xcel Energy acted prudently. The  
15 focus of the Aegis Litigation was Aegis's claim that GE committed willful and  
16 wanton negligence and/or gross negligence. While I am not a lawyer, I  
17 understand that the fact that a jury of laypersons found that GE committed  
18 neither form of heightened negligence says nothing about whether Xcel Energy  
19 acted prudently with respect to the operation and maintenance of Unit 3, nor  
20 can it speak to the reasonableness of the Company's actions following the  
21 Event.

22

23 Q. WHY IS IT IMPORTANT THAT THE COMPANY WAS NOT A PARTY TO THE AEGIS  
24 LITIGATION?

25 A. In addition to the fact that the Aegis Litigation focused on GE's actions and  
26 whether those actions constituted a heightened form of negligence, because  
27 Xcel Energy was not a party, the Company had no opportunity to make

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1 arguments or present evidence on its own behalf, nor did we have the  
2 opportunity to directly challenge GE’s evidence. Aegis, as the remaining party,  
3 needed to prove that GE acted with willful and wanton negligence or gross  
4 negligence; it did not need to defend the Company’s actions. Therefore, the  
5 Company never had the opportunity to demonstrate at trial that it operated and  
6 maintained the plant in a prudent fashion, consistent with industry standards  
7 and in compliance with all GE guidelines – issues being addressed in this  
8 proceeding.

9  
10 **D. Avoided Costs or Customer Benefits**

11 Q. YOU’VE DISCUSSED COMPANY RECOVERIES OF COSTS RELATED TO THE EVENT,  
12 EITHER FROM INSURANCE OR FROM THE GE SETTLEMENT, BUT ARE THERE  
13 ALSO COSTS THAT THE COMPANY AVOIDED DUE TO THE ACTIONS TAKEN  
14 BEFORE, DURING OR AFTER THE EVENT?

15 A. Yes, there are two types of costs the Company avoided (or benefits that  
16 customers received) due to the Company’s actions, although quantifying these  
17 “avoided costs” with precision is difficult. First, as Mr. Miller discusses and  
18 estimates, the Company did not incur the costs required to purchase insurance  
19 that could have provided replacement power coverage. If the Commission finds  
20 that the Company *should* have purchased such insurance, as the Office of the  
21 Attorney General argues, then it is reasonable to consider the costs avoided –  
22 and therefore not borne by customers – in determining the net impact to  
23 customers of the Company’s decision to forego such purchases. Second, as Mr.  
24 Schottler discusses, the restoration work performed after the Event, along with  
25 associated work able to be performed during the time this restoration work was  
26 occurring, provided operational efficiencies and other customer benefits. The

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1 impact of these efficiencies and cost savings must also be considered in  
2 determining whether customers ultimately bore any net costs due to the Event.

3  
4 **E. Regulatory Actions**

5 Q. WHEN DID THE COMMISSION FIRST CONSIDER THE EVENT AND ITS POTENTIAL  
6 IMPACT ON CUSTOMERS?

7 A. The Commission first addressed the Event and its potential impact on  
8 customers in the Company's 2012 electric rate case. That case was filed on  
9 November 2, 2012, and used a 2013 test year. When decided by the Commission  
10 in late summer of 2013, Unit 3 had been off-line since the Event but was about  
11 to return to service.

12  
13 Q. AND WHAT DID THE COMMISSION DECIDE IN THAT CASE?

14 A. The Commission stated that Unit 3 "was not used and useful during the 2013  
15 test year" and ordered the Company "to remove all direct Sherco 3 costs, except  
16 property taxes, from the test year." The Commission also allowed the Company  
17 to defer Unit 3's depreciation expense.<sup>13</sup>

18  
19 Q. WHAT IMPACT DID THAT HAVE ON THE COMPANY?

20 A. This Commission decision amounted to total disallowance of \$21.6 million to  
21 the Company, consisting of \$13.2 million in disallowed recovery due to  
22 removing Unit 3 from the Company's rate base, plus \$8.4 million in disallowed

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<sup>13</sup> *In the Matter of the Application of Northern States Power Company for Authority to Increase Rates for Electric Service in the State of Minnesota*, Docket No. E002/GR-12-961, FINDINGS OF FACT, CONCLUSIONS OF LAW AND ORDER at 23 (September 3, 2013).

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1 operations and maintenance expenses, as shown on Exhibit\_\_\_\_(ADK-1),  
2 Schedule 2.<sup>14</sup>

3  
4 Q. WHAT IS THE SIGNIFICANCE OF THAT DECISION IN THIS CASE?

5 A. By determining that Unit 3 was not used and useful, denying recovery of all  
6 direct costs associated with Unit 3 other than property taxes, removing all costs  
7 related to the unit from rate base and deferring depreciation, the Commission  
8 deprived the Company of cost recovery for both O&M expenses and the return  
9 on the Company's investment in the unit. In essence, the Commission  
10 effectively determined that, during the period of the outage, the Company's  
11 portfolio of generation assets used to serve (and therefore paid for by)  
12 customers should not include Unit 3.

13  
14 Q. WHAT IMPLICATIONS DOES THIS CONCLUSION HAVE FOR THE ISSUE OF  
15 REPLACEMENT POWER COSTS THAT IS THE SUBJECT OF THIS PROCEEDING?

16 A. Given this conclusion, by inference, there should be no expectation that –  
17 during this period – any energy would have been generated by Unit 3 to serve  
18 customers and offset market energy purchases. Thus, for this proceeding, the  
19 Commission's conclusion regarding the used and usefulness of Unit 3, and the  
20 financial impact of that conclusion, should be taken into account as the  
21 Commission now addresses any issues around replacement power.

22  
23 Q. WHAT COULD THE COMMISSION ULTIMATELY CONCLUDE, EVEN IF IT  
24 DETERMINES THAT THE COMPANY ACTED IMPRUDENTLY?

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<sup>14</sup> Schedule 2 was first filed in Docket Nos. E002/GR-12-961, E002/GR-13-868, E999/AA-13-599, E999/AA-14-579, E999/AA-16-523, E999/AA-17-492, and E999/AA-18-373, Xcel Energy Reply Comments at Attachment A (January 29, 2019). (eDocket No. 20191-149766-01 through 20191-149766-12).

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1 A. Based on the disallowance already imposed on the Company, as well as its  
2 conclusion that Unit 3 was not used and useful during the outage, the  
3 Commission should correctly conclude that no *additional* disallowance is  
4 warranted, as there should be no expectation of energy generation from a plant  
5 that is not used and useful. Put differently, had Unit 3 never been built, it would  
6 not have been included in rate base and there would be no expectation that  
7 market energy purchases made without offsetting production from the non-  
8 existent plant would be “replacement power” subject to disallowance. Given  
9 the Commission’s exclusion of Unit 3’s capital and O&M costs from base rates  
10 during the outage, therefore, there should similarly be no expectation that  
11 replacement power costs should be disallowed.

12  
13 Q. PLEASE SUMMARIZE THE VARIOUS MITIGATING FACTORS THAT MUST BE  
14 CONSIDERED BY THE COMMISSION IN DETERMINING WHETHER THE EVENT HAS  
15 IMPOSED NET COSTS ON MINNESOTA CUSTOMERS?

16 A. Table 2 lists the various mitigating factors I discussed above, how customers  
17 received the benefit of these items, and the value of those benefits to Minnesota  
18 customers, again presented on a Minnesota jurisdictional basis. For the  
19 “insurance premium expense” and “restoration and associated work”  
20 categories, I have stated the lower end of the estimated value of avoided costs  
21 or customer benefits, as presented by Mr. Miller and Mr. Schottler, respectively.  
22 As Mr. Schottler and Mr. Detmer discuss, some customer benefits such as  
23 avoided replacement power purchases are extremely difficult to quantify with  
24 any precision. However, these are still real benefits that must be considered to  
25 get a full view of the Event’s financial impact, if any, on customers.

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**Table 2  
Cost Mitigating Factors**

<u>Category</u>	<u>Customer benefit</u>	<u>Value to MN Customers</u>
2012 Rate Case Order	Disallowed recovery	\$21.6 million
Insurance recovery (restoration)	Offset to rate base in 2013 Rate Case	\$98.8 million
Insurance recovery (excess fuel)	Refunded in May 2015 FCA	\$0.4 million
GE Settlement	Refunded in February 2019 FCA	<b>[PROTECTED DATA BEGINS PROTECTED DATA ENDS]</b>
Insurance premium expense	Avoided costs	<b>[PROTECTED DATA BEGINS PROTECTED DATA ENDS]</b>
Restoration and associated work	Avoided costs of future work, avoided replacement power purchases, reduced fuel costs, and avoided costs of future forced outages	\$16.2 million

Q. WHAT DO YOU CONCLUDE WHEN COMPARING THE VALUE OF THESE MITIGATING FACTORS TO THE TOTAL MINNESOTA ELECTRIC JURISDICTIONAL COSTS INCURRED BY THE COMPANY AS SHOWN IN TABLE 1?

A. Given the prior rate case disallowance, the funds already returned to customers either through direct refund or as an offset to rate base, and the avoided costs or customer benefits derived from the Company's actions, when compared to the costs incurred by the Company due to the Event, even if the Commission finds some imprudence on the part of the Company, it should find that no further refund is necessary or appropriate.

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**IV. INTRODUCTION OF WITNESSES**

1  
2  
3 Q. PLEASE INTRODUCE THE WITNESSES THE COMPANY SPONSORS IN THIS  
4 PROCEEDING.

5 A. In addition to my Policy testimony, the Company sponsors the following  
6 witnesses, each of whom is a current or retired Xcel Energy employee, unless  
7 otherwise noted:

- 8 • *Mark W. Kolb*, retired System Engineer, who worked for 24 years at the  
9 Sherco facility, before, during and after the Event, testifies regarding the  
10 history of Unit 3 and the Company's operations, maintenance and  
11 inspection practices with respect to that unit;
- 12 • *Timothy P. Murray*, retired Principal Engineer with the Turbine Overhaul  
13 Services group in the Company, further discusses some of the technical  
14 information related to the low-pressure turbines at Unit 3 and the work of  
15 the Company to gather and analyze industry technical information  
16 affecting those turbines, and the operations, maintenance, and inspections  
17 of Unit 3 in particular;
- 18 • *David G. Daniels*, Senior Principal Scientist with Acuren Inspection, Inc.  
19 and an internationally recognized expert on water and steam chemistry to  
20 electric utilities, testifies to the Company's water and steam chemistry  
21 practices for Unit 3;
- 22 • *Herbert J. Sirois*, an independent turbomachinery consultant, provides  
23 expert testimony on the Company's operations, maintenance and  
24 inspection practices with Unit 3, including discussion of industry practices  
25 and technical recommendations regarding such units and specific  
26 discussion of GE's advice regarding inspection and maintenance of the  
27 Unit 3 low pressure turbines;

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- 1       • *Anthony A. Tipton*, owner of New England Metallurgical and an expert on  
2       the design, manufacturing, operation and repair of gas and steam turbines,  
3       details the nature of the failure that occurred during the Event, identifies  
4       the equipment involved and the critical design features of that equipment,  
5       and details the operational and maintenance history of that equipment, all  
6       of which forms the basis of his determination of the root cause of the  
7       failure Event;
- 8       • *Nicholas J. Detmer*, Director of Market Operations and Analytics, testifies  
9       on the net cost of replacement power due to the unavailability of Unit 3  
10      following the Event;
- 11      • *Darin W. Schottler*, Director of Regional Capital Projects, testifies on the  
12      restoration process to return Unit 3 to service, the nature of the restoration  
13      work performed, the additional non-restoration work performed on Unit  
14      3 during that same time period, and the additional benefits realized by  
15      customers from the work performed during the restoration period; and
- 16      • *Robert L. Miller*, Director of Hazard Insurance, testifies on insurance issues  
17      related to the Event.

**V. CONCLUSION**

21   Q. PLEASE SUMMARIZE YOUR TESTIMONY.

22   A. The testimony we provide demonstrates that, based on the information  
23   available to it, the Company acted reasonably and consistent with sound utility  
24   practices with respect to the operation and maintenance of Unit 3 prior to the  
25   Event. Moreover, the Company acted reasonably and consistent with sound  
26   utility practice following the Event. Finally, the Company's actions effectively



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1 mitigated the impact of the Event on our customers, such that no further  
2 Commission action is required.

3

4 Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

5 A. Yes, it does.

# Al Krug

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612-330-6270 (W)

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## ***EDUCATION***

- 1980 University of California, Los Angeles  
MA, Economics
- 1978 Queens College, City University of New York  
BA, Economics

## ***WORK EXPERIENCE***

- 2013-Present **Xcel Energy Services, Inc., Minneapolis MN**  
***Associate Vice President, State Regulatory Policy***
- Develop regulatory strategy for NSPM.
- 2008-2013 **Xcel Energy Services, Inc., Minneapolis MN**  
***Regional Vice President, Regulatory Administration***
- Coordinate regulatory compliance and strategy for NSPM.
- 2003-2008 **Xcel Energy Services, Inc., Denver, Colorado**  
***Regulatory Consultant***
- Develop regulatory strategy for Commercial Operations.
  - Coordinate compliance activity.
  - Coordinate internal and external audits of trading activity.
- 1998-2003 **Xcel Energy Services, Inc., Minneapolis, MN**  
***Manager Renewable Energy/Regulatory Contract Coordinator***
- Develop corporate strategies for renewable energy development.
  - Represent Company at state regulatory and legislative proceedings regarding renewable energy issues.
  - Negotiate purchased power contracts for renewable energy.
  - Manage Energy Market's regulatory interactions with internal and external stakeholders.

1994-1998

**Minnesota Department of Commerce, St. Paul, MN**  
***Supervisor, Electric Regulatory Unit***

- Manage regulatory staff to participate in state regulatory proceedings before the Minnesota Public Utilities Commission.
- Submit expert testimony in regulatory proceedings.
- Represent the Department of Commerce before the Minnesota legislature.

1982-1994

**Minnesota Department of Commerce, St. Paul, MN**  
***Principal Statistical Analyst***

- Submit expert testimony in regulatory proceedings.
- Perform economic and statistical analysis to support regulatory and energy policy initiatives.

**Northern States Power Company**  
**Electric Utility - State of Minnesota**  
(\$000s)

Docket Nos. E999/AA-18-373, E999/AA-17-492, E999/AA-16-523

E999/AA-14-579, E002/GR-13-868 and E002/GR-12-961

Sherco Unit 3 Litigation Settlement Reply Comments

Attachment A - Page 1 of 1

**Docket No. E002/GR-12-961****2013 Test Year**Rate Base

Sherco 3 Related Rate Base (1)	\$	119,088
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Composite Tax Rate

41.37%

Capital Structure

Long Term Debt		2.27%
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Short Term Debt		0.01%
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Preferred Stock		0.00%
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Common Equity		5.17%
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Required Rate of Return (2)		7.45%
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Return On Rate Base	\$	8,872
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Tax RR on Equity Return	\$	4,344
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Total Return & Tax Gross-Up Denied Recovery	\$	13,216
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Sherco 3 O&amp;M Expense Removed from Recovery (3)

\$ 8,402

Total Sherco 3 Exclusions

\$ 21,618

(1) 12-961 Final Rates Compliance Filing  
Schedule 1b, Page 1 of 1  
Row 33, Column 7

(2) 12-961 Final Rates Compliance Filing  
Schedule 1a, Page 1 of 1  
Row 6

(3) 12-961 Final Rates Compliance Filing  
Schedule 1c, Page 1 of 3  
Row 7, Column 17