

BEFORE THE MINNESOTA OFFICE OF ADMINISTRATIVE HEARINGS  
600 North Robert Street, St. Paul, MN 55101

FOR THE MINNESOTA PUBLIC UTILITIES COMMISSION  
121 7<sup>th</sup> Place East, Suite 350, St Paul MN 55101-2147

In re of Sherco Unit 3 Energy replacement Costs.	OAH Docket No. 65-2500-38476
In re the Application of Northern States Power Company for Authority to Increase Rates for Electric Service in the State of Minnesota, et al.	MPUC Docket No. E-002/GR-12-961
In re the Application of Northern States Power Company for Authority to Increase Rates for Electric Service in the State of Minnesota, et al.	MPUC Docket No. E-002/GR-13-868
In re the Review of the 2012-13 Annual Automatic Adjustment Reports for All Electric Utilities	MPUC Docket No. E-999/AA-13-599
In re the Review of the 2013-14 Annual Automatic Adjustment Reports for All Electric Utilities	MPUC Docket No. E-999/AA-14-579
In re the Review of the 2015-16 Annual Automatic Adjustment Reports for All Electric Utilities	MPUC Docket No. E-999/AA-16-523
In re the Review of the 2016-17 Annual Automatic Adjustment Reports for All Electric Utilities	MPUC Docket No. E-999/AA-17-492
In re the Review of the 2017-18 Annual Automatic Adjustment Reports for All Electric Utilities	MPUC Docket No. E-999/AA-18-373

**REBUTTAL TESTIMONY AND ATTACHMENTS OF MATTHEW J KING**

**ON BEHALF OF**

**THE DIVISION OF ENERGY RESOURCES OF  
THE MINNESOTA COMMERCE DEPARTMENT**

**SEPTEMBER 22, 2023**

**PUBLIC DOCUMENT**

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I. INTRODUCTION

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**Q. Please state your name and occupation.**

A. My name is Matthew J. King. I am a consultant with GDS Associates, Inc. (GDS).

**Q. Are you the same witness who sponsored direct testimony in this case?**

A. Yes. I submitted direct testimony on behalf of the Minnesota Department of Commerce, Division of Energy Resources (Department).

**Q. What is the purpose of your rebuttal testimony?**

A. The purpose of my testimony is to update my recommendation on the reasonable level of energy replacement costs associated with the catastrophic failure of the Sherburne Country Generating Station Unit 3 (Sherco 3) from November 2011 to October 2013 (Outage Period) that should be refunded to the customers of Northern States Power Co. d/b/a Xcel Energy (Xcel) as originally presented in my direct testimony and otherwise respond to the information presented in Xcel’s direct testimony. In Section II, I discuss each of the cost mitigating factors as presented by Xcel. In Section III, I detail the adjustments and updates to the level of replacement power costs. In Section IV, I provide my recommendation on a refund amount related to the Sherco 3 outage replacement costs.



1 costs should be netted with consideration for costs already imposed on Xcel by prior  
2 Commission action and other avoided costs or benefits Xcel caused for its customers.<sup>2</sup>

3

4 **Q. What incremental costs does Xcel identify?**

5 A. Xcel identifies restoration costs associated with repairing Sherco 3, replacement power  
6 costs, and excess fuel oil costs associated with consuming fuel oil to restart Sherco 3.<sup>3</sup>

7

8 **Q. What cost mitigating factors does Xcel identify?**

9 A. Xcel identifies disallowed recovery from its 2012 rate case, amounts recovered through  
10 insurance, the settlement amount with General Electric Company (GE Settlement), and  
11 various benefits associated with Sherco 3 restoration activities.<sup>4</sup> I discuss each of these  
12 separately and in further detail in respective sections below.<sup>5</sup>

13

14 **Q. Do you agree that replacement power costs should be netted where appropriate to  
15 determine an appropriate customer refund amount?**

16 A. I agree it may be appropriate to reduce or net the incremental costs to customers in  
17 certain instances. In my direct testimony, I discussed that I had not yet reduced the

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<sup>2</sup> Ex. Xcel-\_\_ at 9:19 – 10:2 (Krug Direct).

<sup>3</sup> Ex. Xcel-\_\_ at 12, Table 1 (Krug Direct).

<sup>4</sup> Ex. Xcel-\_\_ at 20, Table 2 (Krug Direct).

<sup>5</sup> Xcel also identifies avoided replacement power insurance premium expenses as a mitigating factor. To my knowledge, no party in the contested case has thus far advocated that it was imprudent for Xcel not to purchase replacement power insurance. Therefore, I do not address the avoided cost of such insurance as a mitigating factor.

1 energy replacement costs for the GE Settlement.<sup>6</sup> However, as I discuss below, I do not  
2 agree that all of the avoided costs or benefits that Xcel identifies are appropriate for  
3 netting consideration.

4

5 **A. 2012 Rate Case Disallowance**

6 **Q. To whose testimony do you respond in this section?**

7 A. I respond to Xcel witness Allen Krug's direct testimony regarding the impact of the 2012  
8 rate case on this proceeding.

9

10 **Q. What is the purpose of a typical utility rate case?**

11 A. Various utilities in many jurisdictions are regulated. Electric utilities like Xcel are  
12 regulated by the Commission in Minnesota. A chief component of regulating utilities is  
13 ensuring they charge rates to customers that are just and reasonable, which generally  
14 means that rates are set to allow utilities to recover an amount equal to their costs to  
15 operate and a reasonable return on capital. A rate case is a process for determining a  
16 utility's cost of providing service to customers and designing rates to customers that will  
17 allow a utility to recover those costs. Traditionally, a utility's costs were based on a  
18 historical, 12-month period of actual costs that are adjusted for known and measurable  
19 changes to establish a test year that serves as the basis for the rate case. In Minnesota,  
20 utilities are also allowed to use forecasted test years, where a test-year in the near

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<sup>6</sup> Ex. DOC-2 at 19:16-17 (King Direct).

1 future is “forecasted.”

2

3 **Q. How is Xcel’s 2012 Rate Case pertinent to Sherco 3?**

4 A. In the 2012 Rate Case, the Commission decided to remove all direct Sherco 3 costs from  
5 the test year except for property taxes and allowed Xcel to defer the depreciation  
6 expense for 2013.<sup>7</sup> Xcel has quantified the impact of that disallowance as \$13.2 million  
7 in return on equity and \$8.4 million related to O&M costs for a total of \$21.6 million.<sup>8</sup>  
8 Notably, the Commission’s decision in the 2012 rate case accepted Xcel’s proposal to  
9 remove avoided O&M Costs from the test year and to defer depreciation expense  
10 associated with Sherco Unit 3 booked for 2013.<sup>9</sup>

11

12 **Q. What is Xcel’s conclusion on replacement power cost given the 2012 Rate Case**  
13 **decision?**

14 A. Beyond including it as a \$21.6 million cost mitigating factor, Xcel concludes that the  
15 Sherco 3 disallowance from the 2012 Rate Case implies that no additional disallowance

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<sup>7</sup> *In re the Application of N. States Power Co. for Authority to Increase Rates for Elec. Serv. in the State of Minn.*, Docket No. E-002/GR-12-961, Findings of Fact, Conclusions, and Order at 22–23 (Sept. 3, 2013) (2012 Rate Case Order).

<sup>8</sup> Ex. Xcel-\_\_\_, ADK-D-2 (Krug Direct).

<sup>9</sup> See Ex. DOC-5, MJK-R-1 at 5 (King Rebuttal) (2012 Rate Case, Excerpts of Rebuttal Testimony of Robinson at 5). Xcel also requested to defer 2012 depreciation expense, but as the Department pointed out, 2012 depreciation expense was already paid by ratepayers. See 2012 Rate Case, Campbell Surrebuttal at 36. The ALJ agreed with the Department and the Commission adopted the ALJ’s recommendation on this finding. See ALJ Findings at ¶ 133; 2012 Rate Case Order at 22 (adopting the ALJ’s findings on the Sherco 3 issue except for paragraphs 134–136).

1 related to replacement power cost is appropriate.<sup>10</sup>

2

3 **Q. Did the Commission reach a similar conclusion in its order?**

4 A. The Commission did not make such a conclusion itself in its order and instead deferred  
5 the issue.<sup>11</sup> The ultimate result of that deferment is the current case. The Commission's  
6 order also noted that Xcel's customers paid rates in 2011 and 2012 during the Outage  
7 Period that were set in a prior rate case and included costs for a functional Sherco 3.<sup>12</sup>

8

9 **Q. Did you offset any amount of the costs that Xcel did not recover in its 2012 rate case in  
10 your replacement power cost calculation?**

11 A. No. The disallowance from the prior rate case does not reflect the incremental  
12 replacement power costs that Xcel's customers paid. Xcel not recovering certain Sherco  
13 3 O&M costs and not earning a return on equity for a particular historical period in a  
14 rate case is separate and distinct from the incremental energy costs that Xcel's  
15 customers paid during the Outage Period in the FCA. The Commission decided that  
16 Xcel's customers should not be charged certain costs for a generation plant that had  
17 been unavailable for a large stretch of time. That does not in turn make customers  
18 whole for the incremental energy costs that they were charged as a result of that same

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<sup>10</sup> Ex. Xcel-\_\_ at 17:20 – 19:11 (Krug Direct).

<sup>11</sup> 2012 Rate Case Order at 23.

<sup>12</sup> 2012 Rate Case Order at 20 ("During the outage ratepayers have continued to pay the rates set in Xcel's last rate case—rates premised on a functioning Sherco 3.").



1 unavailability.

2

3 **B. Insurance Reimbursement**

4 **Q. Did Xcel receive reimbursement from insurance for Sherco 3 restoration costs?**

5 A. Yes. Xcel reports that it received \$99.2 million from insurance reimbursement  
6 associated with restoring Sherco 3 to service and for excess fuel oil costs. In its 2013 rate  
7 case, the Commission required Xcel to reduce its rate base so customers would receive  
8 the insurance reimbursement benefit.

9

10 **Q. Are the insurance reimbursement amounts relevant to replacement power costs?**

11 A. No. The insurance reimbursement is only directly relevant to the restoration and excess  
12 fuel oil costs.

13

14 **Q. Did the insurance reimbursement amounts fully offset Xcel's costs?**

15 A. No. The insurance reimbursement fully offset excess fuel oil costs but did not fully offset  
16 restoration costs. The restoration costs in excess of insurance reimbursements were  
17 recovered from customers via a different rate case.<sup>13</sup>

18

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<sup>13</sup> Ex. DOC-5, MJK-R-2 (King Direct) (Xcel Response to Oct. 21, 2020 Information Request).

1 **C. GE Settlement**

2 **Q. What is the GE Settlement?**

3 A. As introduced in my direct testimony, Xcel settled its litigation with the Sherco 3 turbine  
4 manufacturer (GE Litigation) and refunded the settlement amount in the February 2019  
5 FCA.<sup>14</sup>

6  
7 **Q. Is the GE Settlement and its refund to customers relevant to replacement power  
8 costs?**

9 A. Yes. As I discussed in my direct testimony, because the GE Settlement is a **[NOT PUBLIC  
10 DATA BEGINS [REDACTED]**  
11 **[REDACTED] NOT PUBLIC DATA ENDS]** there is a question on what portion  
12 of the GE Settlement amount should be considered applicable to replacement power  
13 costs.

14  
15 **Q. Has Xcel proposed what portion of the GE Settlement amount should be applied to  
16 replacement power costs?**

17 A. No. Xcel presents the entire GE Settlement amount as a cost mitigating factor to  
18 apparently be considered against combined restoration and replacement power costs.  
19 When asked via discovery, Xcel did not offer a method for determining an appropriate

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<sup>14</sup> Ex. DOC-2 at 19:1 – 20:7 (King Direct).

1 portion to be allocated for replacement power costs.<sup>15</sup>

2

3 **Q. What amount of the GE Settlement amount should be applied to replacement power**  
4 **costs?**

5 A. In my direct testimony, I introduced that Xcel quantified 24.4% of its harm in litigation as  
6 associated with loss of use or replacement power costs. Accordingly, I would propose  
7 applying the same percentage to the total GE Settlement to determine an amount that  
8 is applicable to replacement power costs. The remaining portion that was refunded to  
9 customers in the FCA then serves to help offset the restoration costs above insurance  
10 reimbursement that customers paid for. I describe the calculation and amount in a later  
11 section.

12

13 **Q. Why should the GE Settlement offset replacement power costs when other cost**  
14 **mitigating factors presented by Xcel should not?**

15 A. The GE Settlement reflects tangible funds that were returned to customers. The GE  
16 Settlement resulted from the GE Litigation which was related, in part, to the  
17 replacement power costs that Xcel incurred and its customers paid due to the Sherco 3  
18 catastrophic failure. For these two reasons, the GE Settlement is distinct from the other  
19 cost mitigating factors presented by Xcel and should offset replacement power costs.

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<sup>15</sup> Ex. DOC-2, MJK-D-8 (King Direct) (Xcel Response to DOC IR S42); Ex. DOC-5, MJK-R-3 (King Rebuttal) (Xcel Response to DOC IR No. S46).

1 **D. Restoration-Associated Benefits**

2 **Q. What are restoration-associated benefits?**

3 A. Xcel introduces restoration-associated benefits as benefits to customers that accrued  
4 based on the work performed to restore Sherco 3 to service. Because Sherco 3  
5 restoration was largely paid for by insurance, Xcel represents these as net benefits to  
6 customers. Xcel discusses four different categories of restoration-associated benefits  
7 that it represents as totaling \$16.2 million.<sup>16</sup> Those four categories are avoided future  
8 costs (capital costs associated with future work avoided by work performed during  
9 restoration), avoided replacement power needs (reduction in future planned outages  
10 due to work performed during restoration), improved performance (efficiency  
11 improvements due to work performed during restoration), and other labor and material  
12 savings (re-allocation of Sherco 3 staff to other plants and reduction of materials  
13 consumed during restoration).

14

15 **Q. Do you agree that these restoration-associated benefits should be considered as**  
16 **mitigating the cost of replacement power?**

17 A. No. There are issues with Xcel's calculation of these benefits. I discuss issues with Xcel's  
18 calculation of avoided replacement power costs further below, and Department witness  
19 Mr. Polich discusses issues with the other categories in his rebuttal testimony.

20

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<sup>16</sup> Ex. Xcel-\_\_ at 20:8-24 (Schottler Direct).

1           1. *Avoided Replacement Power Needs*

2   **Q.    What are avoided replacement power needs?**

3   A.    As introduced by Xcel, avoided replacement power needs refers to a reduction in future  
4       planned outages as a result of work performed during restoration.

5  
6   **Q.    How does Xcel quantify avoided replacement power needs?**

7   A.    Xcel performs a two-step calculation to quantify avoided replacement power costs  
8       during avoided planned outage time. First, Xcel determines how many days of future  
9       planned outages are hypothetically avoided. To support this, Xcel provides a table of  
10       work activities and corresponding benefits, including reduced future planned outages.<sup>17</sup>  
11       Second, Xcel estimates the average daily value or margin associated with Sherco 3  
12       operating instead of being on planned outages. This value is based on the Sherco 3's  
13       energy or Locational Marginal Price (LMP) from 2015 to 2022.<sup>18</sup>

14  
15   **Q.    What issues are there with Xcel's determination of days of future avoided planned  
16       outages?**

17   A.    There is a lack of clarity on how many days of avoided planned outages Xcel is  
18       estimating. Mr. Detmer utilizes a range of 76 to 84 days between 2015 and 2022,<sup>19</sup>  
19       whereas Mr. Schottler states 10 to 11 weeks.<sup>20</sup> A totaling of the days referenced in the

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<sup>17</sup> Ex. Xcel-\_\_\_, DWS-D-4 (Schottler Direct).

<sup>18</sup> Ex. Xcel-\_\_\_, NJD-D-7 (Detmer Direct).

<sup>19</sup> Ex. Xcel-\_\_\_ at 20:8-11 (Detmer Direct).

<sup>20</sup> Ex. Xcel-\_\_\_ at 15:24-26 (Schottler Direct).

1 applicable column of Mr. Schottler’s Schedule 4 produces 104 to 111 days, however 70  
2 of those days correspond to 2014 and 12 of those days apparently correspond to after  
3 2022.<sup>21</sup> These three different ranges of days produce a lack of clarity, but Mr. Schottler’s  
4 Schedule 4 by itself appears to suggest a much lower 22 to 29 days of avoided planned  
5 outages between 2015 and 2022. When asked in discovery for the basis of the number  
6 of days Mr. Detmer utilized, Xcel simply pointed to Mr. Schottler’s Schedule 4.<sup>22</sup>

7  
8 **Q. Can you walk through in more detail your conclusion that Schedule 4 of Mr. Schottler’s**  
9 **direct testimony suggests only 22 to 29 days of avoided planned outages?**

10 A. Row 1 of Mr. Schottler’s Schedule 4 states a reduction of 4 weeks of outage time in and  
11 row 21 states 6 weeks of reduction, both in 2014. In combination, that provides for 70  
12 days of reduced outage time in 2014. Row 5 states a one day per year reduction in  
13 outages from 2013 to 2030, and row 12 states two days for each major outage from  
14 2013 to 2030. In combination, that provides for 12 days of reduced outage time  
15 occurring after 2022, assuming that two major outages occur between 2023 to 2030.  
16 Compared to Mr. Detmer’s 2015 to 2022 timeframe, that provides for 82 days of  
17 reduced outages contained within Mr. Schottler's Schedule 4 occurring outside that  
18 timeframe.

19  

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<sup>21</sup> Ex. Xcel-\_\_\_, DWS-D-4 (Schottler Direct).

<sup>22</sup> Ex. DOC-5, MJK-R-4 (King Rebuttal) (Xcel Response to DOC IR No. S44).

1 **Q. What issues are there with Xcel’s estimate of the daily margin of avoided planned**  
2 **outages?**

3 A. The main issue with Xcel’s estimate of the daily margin of avoided planned outages is  
4 that its analysis is based on LMPs across all hours of 2015 to 2022.<sup>23</sup> Planned outages  
5 are typically scheduled by generation owners to occur during times when LMPs are  
6 expected to be low, such as during shoulder month periods when demand for electricity  
7 is lower. By including all hours, Xcel is including high LMPs periods when it is not realistic  
8 that it would have scheduled a planned outage for Sherco 3. For example, a review of  
9 Sherco 3’s highest margin hours from 2015 to 2022 reveals that they are strongly  
10 concentrated during extreme cold weather events such as Winter Storm Uri when LMPs  
11 spiked to very high levels. Over the 6-day period of February 14 to 19, 2021, Xcel’s  
12 analysis models approximately \$14.8 million of margin, which amounts to 6.6% of the  
13 total over the 8-year study period despite only accounting for 0.2% of the days.

14

15 **Q. What is the impact of the issues with avoided replacement power needs?**

16 A. The impact of both including a larger number of avoided planned outage days and an  
17 inflated daily value associated with those is to overstate the benefit dollar amount.

18

19 **Q. Should avoided replacement power needs be considered as a cost mitigating factor**  
20 **against replacement power costs during the Outage Period?**

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<sup>23</sup> Ex. Xcel-\_\_\_, NJD-D-7 (Detmer Direct).

1 A. No, for the reasons discussed in Mr. Polich’s testimony.

2

3

**III. ENERGY REPLACEMENT COST AMOUNT UPDATE**

4 **Q. What updates have you made to your energy replacement cost amount?**

5 A. I have made updates to my energy replacement cost amount based on adopting the GE  
6 Litigation amount, incorporation of part of the GE Settlement as an offset, and updating  
7 the interest calculation. Each of these updates is discussed in their respective sections  
8 below.

9

10 **A. AAA Reporting vs GE Litigation**

11 **Q. Did you recommend a specific energy replacement cost amount in your direct**  
12 **testimony?**

13 A. No. In my direct testimony, I provided two different energy replacement cost amounts  
14 based on the amounts reported by Xcel in its relevant Annual Automatic Adjustment  
15 (AAA) reports and the amount Xcel represented in the GE Litigation.<sup>24</sup> I did not make a  
16 recommendation between the two amounts because Xcel had not provided sufficient  
17 information in discovery regarding the AAA amount, and why it was different than the  
18 amount from the GE Litigation.<sup>25</sup>

19

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<sup>24</sup> Ex. DOC-2 at 18:1-9 (King Direct).

<sup>25</sup> Ex. DOC-2 at 15:10 – 16:8 (King Direct).



1 **Q. Did Xcel provide more information in its direct testimony on which amount more**  
2 **accurately reflects actual customer costs?**

3 A. Yes. Xcel provided testimony that further described the AAA amount and why it is  
4 different than the GE Litigation amount.<sup>26</sup>  
5

6 **Q. What amount do you recommend now?**

7 A. Based on the additional information Xcel provided through testimony, I recommend  
8 utilizing the GE Litigation amount as the basis for energy replacement costs in favor of  
9 the AAA amount. Xcel explained that the GE Litigation analysis is more comprehensive  
10 than the analysis underpinning the AAA amount because it considers broader market  
11 impacts to Xcel's load and other resources. Additionally, the AAA analysis contains  
12 certain simplifying assumptions related to forced outage rates and start-up costs that  
13 are not realistic for the long outage that Sherco 3 experienced.  
14

15 **B. GE Settlement Offset**

16 **Q. Have you incorporated any amount of the GE Settlement as an offset to energy**  
17 **replacement costs?**

18 A. Yes. As I discussed above in Section III.B., I have calculated a 24.4% portion of the GE  
19 Settlement amount of [NOT PUBLIC DATA BEGINS ██████████ NOT PUBLIC DATA ENDS]  
20 which is included as an offset or credit against the Energy Replacement costs in the

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<sup>26</sup> Ex. Xcel-\_\_ at 11:1 – 19:10 (Detmer Direct).

1 February 2019 FCA in which Xcel refunded the GE Settlement to customers.

2

3 **C. Interest**

4 **Q. What update did you make to the calculation of interest?**

5 A. I have updated the calculation of interest to account for changes to the Prime rate that  
6 have occurred since my direct testimony was filed.<sup>27</sup>

7

8 **Q. What action should the Commission take if the Prime rate is updated prior to Xcel  
9 issuing a refund?**

10 A. Because the Prime rate is a publicly available figure and is not subject to reasonable  
11 dispute, the Commission could request that the calculation of interest be updated in a  
12 compliance filing prior to the refund being issued.



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<sup>27</sup> Ex. DOC-5, MJK-R-5 (King Rebuttal).

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**IV. CONCLUSION**

**Q. Please summarize your conclusions and recommendations regarding energy replacement costs for the Sherco 3 outage.**

A. Based on my review and analysis and the conclusion of Mr. Polich that Xcel failed to prudently operate and maintain Sherco 3, I conclude that energy replacement costs associated with the Sherco 3 outage should be quantified according to the amounts from the GE Litigation as allocated to the Minnesota jurisdiction and offset by a portion of the GE Settlement amount that was refunded to customers. Therefore, I recommend that \$55,675,052 Minnesota Jurisdictional amount, **[NOT PUBLIC DATA BEGINS**   
 **NOT PUBLIC DATA ENDS]** be refunded to Xcel’s customers through its 2024 FCA true-up filing.

**Q. Does this complete your rebuttal testimony?**

A. Yes.