

Exhibit No.:  
Issues: Revenue Requirement  
Witness: Avi Allison  
Type of Exhibit: Surrebuttal Testimony  
Sponsoring Party: Sierra Club  
Case No.: ER-2019-0335  
Date Testimony Prepared: Feb. 14, 2020

**BEFORE THE PUBLIC SERVICE COMMISSION  
OF THE STATE OF MISSOURI**

**FILE NO. ER-2019-0335**

**REVENUE REQUIREMENT  
SURREBUTTAL TESTIMONY  
OF  
AVI ALLISON**

**ON BEHALF OF SIERRA CLUB**

**February 14, 2020**

ER-2019-0335  
SIERRA CLUB Exhibit No. 551  
Date 3-4-20 Reporter RLJ/AJ  
File No. ER-2019-0335

**BEFORE THE PUBLIC SERVICE COMMISSION  
OF THE STATE OF MISSOURI**

**In the Matter of the Application of Union Electric  
Company d/b/a Ameren Missouri's Tariffs to  
Decrease Its Revenues for Electric Service.**

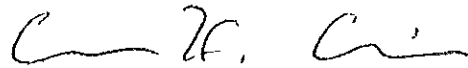
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**AFFIDAVIT**

STATE OF Washington )  
 ) ss.  
COUNTY OF King )

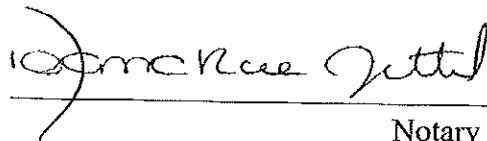
Avi Allison, first being sworn on his oath, states:

1. My name is Avi Allison, and I am a Senior Associate with Synapse Energy Economics, Incorporated (Synapse). My business address is 485 Massachusetts Avenue, Suite 3, Cambridge, Massachusetts 02139.
2. Attached hereto and made part hereof for all purposes is my Surrebuttal Testimony on behalf of Sierra Club, including exhibits, all of which have been prepared in written form for introduction into evidence in the above-referenced docket.
3. I hereby swear and affirm that based upon my personal knowledge, the facts stated in the surrebuttal testimony are true. In addition, my judgment is based upon my professional experience, and the opinions and conclusions stated in the Surrebuttal Testimony are true, valid, and accurate.



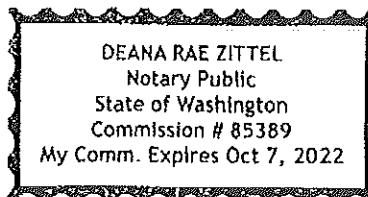
Avi Allison a.k.a Abraham Allison

SUBSCRIBED TO AND SWORN TO before me this 13 day of February, 2020, by Avi Allison.



Notary Public

My commission expires: 10.7.2022



## TABLE OF CONTENTS

1. Introduction and Summary .....	1
2. Economic Status of Ameren Coal Units.....	4
i. The historical net losses incurred by Ameren’s coal units are broadly indicative of their market value.....	5
ii. Ameren’s largest 2018 capital expenditures at its coal units would likely have been unnecessary if those units were to retire by the end of 2023.....	8
iii. Ameren’s IRP process may not be adequate for addressing the economic risks facing the Company’s existing coal units.....	12
iv. Ameren overstates the amount of time typically needed to retire coal units.....	14
3. Ameren Coal Unit Commitment and Dispatch Practices .....	15
i. Substantial differences between Ameren coal unit incurred fuel costs and asserted marginal fuel costs are a cause for concern.....	17
ii. Ameren has not provided any evidence to support the reasonableness of its unit commitment process.....	20
iii. The Commission should not rely on MISO for oversight of Ameren’s unit commitment practices.....	21
iv. Ameren’s analyses show that the Company incurred unnecessary net operational losses in 2018.....	24
v. Ameren’s rebuttal testimony demonstrates the bias in the Company’s approach to the commitment of its coal units.....	27
vi. Ameren’s unit commitment and dispatch practices should be a subject of review in each FAC prudence review proceeding.....	30

## LIST OF EXHIBITS

- AA-S-1. Ameren Responses to Data Requests.
- AA-S-2. Opinion and Order, Mich. Pub. Serv. Comm'n Case No. U-18419 (Apr. 27, 2018).
- AA-S-3. Order of the Commission, Ind. Util. Reg. Comm'n Cause No. 45052 (Apr. 24, 2019).
- AA-S-4. Hoosier Energy, *News Release: Hoosier Energy Announces New 20-Year Resource Plan* (Jan. 21, 2020).
- AA-S-5. PacifiCorp 2019 IRP (Oct. 18, 2019).

**LIST OF TABLES**

Table 1. Sioux unit annual net revenues excluding capital costs, 2016-2018 (2018 \$Million).....7

Table 2. Ameren coal unit major capital expenses, 2018 .....10

1 **1. INTRODUCTION AND SUMMARY**

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

3 **A** My name is Avi Allison and I am a Senior Associate with Synapse Energy Economics,  
4 Incorporated.

5 **Q Are you the same Avi Allison who filed direct testimony regarding revenue requirement**  
6 **and rate design issues in this proceeding?**

7 **A** Yes.

8 **Q On whose behalf are you testifying in this case?**

9 **A** I am testifying on behalf of Sierra Club.

10 **Q What is the purpose of your surrebuttal testimony?**

11 **A** The purpose of my surrebuttal testimony is to respond to the rebuttal testimony of Union  
12 Electric Company d/b/a Ameren Missouri (Ameren or the Company) witnesses Andrew  
13 Meyer, Tom Byrne, Jim Williams, Matt Michels, and Todd Schatzki. Specifically, I respond  
14 to the claims of those witnesses regarding the economic status of Ameren's coal units and the  
15 prudence of Ameren's unit commitment and dispatch practices. I also briefly respond to  
16 statements relating to these topics made by Office of the Public Counsel (OPC) witnesses  
17 Lena Mantle and Geoff Marke and Staff witness Lisa Wildhaber.

18 **Q Please summarize the conclusions of your surrebuttal testimony.**

19 **A** My primary observations and conclusions include the following:

- 20 1. The historical net losses incurred by Ameren's coal units are broadly indicative of  
21 their market value. Though these losses do not by themselves dictate a need for near-  
22 term coal unit retirements, they further undermine the credibility of Ameren's recent  
23 coal unit disposition analyses.

- 1           2. Ameren's largest 2018 capital expenditures at its coal units would likely have been  
2           unnecessary if those units were to retire by the end of 2023. Both Ameren's 2017  
3           Integrated Resource Plan (IRP) and the rebuttal testimony of Mr. Williams  
4           inappropriately fail to account for the ability of Ameren to avoid environmental  
5           compliance costs through earlier retirement.
  
- 6           3. Ameren's standard IRP process is likely inadequate for addressing the economic risks  
7           facing the Company's existing coal units. Instead, a more rigorous, contested  
8           proceeding would be beneficial.
  
- 9           4. Ameren's rebuttal testimony overstates the typical amount of time needed to retire  
10          generating units. There are numerous recent examples of utilities developing plans to  
11          retire coal units within 3 to 5 years of a retirement decision.
  
- 12          5. Recent substantial differences between Ameren's actual fuel costs and market coal  
13          prices are a major cause for concern. It appears that Ameren may not be taking  
14          sufficient steps to avoid paying above-market prices for coal.
  
- 15          6. Ameren has not provided any evidence to support the reasonableness of its unit  
16          commitment process. The Company's claims that its 2018 unit commitment decisions  
17          were informed by rigorous analyses are undermined by the fact that Ameren has  
18          deleted all evidence of any such analyses.
  
- 19          7. The Commission cannot reasonably rely on the Midcontinent Independent System  
20          Operator (MISO) for oversight of Ameren's unit commitment practices. MISO does  
21          not review Ameren's self-commitment decisions and the Company's self-  
22          commitment practices mean that the commitment of Ameren's coal units is  
23          determined outside of MISO's economic optimization framework.
  
- 24          8. Ameren's own analyses indicate that the Company incurred unnecessary net  
25          operational losses on at least three occasions in 2018.

1 9. Ameren's rebuttal testimony demonstrates the bias in the Company's approach to the  
2 commitment of its coal units. The Company applies a higher standard to a decision to  
3 take a unit offline than it does to a decision to bring a unit back online following an  
4 outage.

5 10. Ameren's unit commitment and dispatch practices should be a subject of review in  
6 each of its fuel adjustment clause (FAC) prudence review proceedings.

7 **Q Please summarize your recommendations.**

8 **A** My recommendations are similar to those from my Direct Testimony and include the  
9 following:

- 10 1. The Commission should not allow the recovery of capital costs incurred at the Rush  
11 Island, Labadie, or Sioux plants in 2018 or later until Ameren has presented sound  
12 analyses that justify those investments in the face of major environmental compliance  
13 costs and declining renewable resource costs.
- 14 2. The Commission should require Ameren to present rigorous economic assessments of  
15 alternative near-term retirement dates for each of the Rush Island, Labadie, and Sioux  
16 units by the end of 2020. These forward-looking assessments should be presented in a  
17 contested proceeding to enable full Commission oversight and stakeholder review.  
18 They should incorporate up-to-date assumptions regarding market prices, resource  
19 costs, and environmental compliance costs.
- 20 3. The Commission should disallow the recovery of operational costs incurred through  
21 the uneconomic commitment and dispatch of Ameren's coal units.
- 22 4. The Commission should require Ameren to retain the analyses underlying its unit  
23 commitment decisions for a period of at least two years. These analyses should  
24 clearly specify the costs and revenues that are accounted for within the analyses.



1   2. ECONOMIC STATUS OF AMEREN COAL UNITS

2   **Q Please summarize this section.**

3   **A** In this section, I respond to claims made by Ameren witnesses Matt Michels and Jim  
4       Williams regarding the overall economic status of the Company's coal units and the need for  
5       recent capital expenditures at those units. I show that:

6       1. The historical net losses incurred by Ameren's coal units are broadly indicative of  
7       their market value. Though these losses do not by themselves dictate a need for near-  
8       term coal unit retirements, they further undermine the credibility of Ameren's  
9       unreasonable recent coal unit disposition analyses.

10      2. Ameren's largest 2018 capital expenditures at its coal units would likely have been  
11      unnecessary if those units were to retire by the end of 2023. Both Ameren's 2017 IRP  
12      and the rebuttal testimony of Mr. Williams inappropriately fail to account for the  
13      ability of Ameren to avoid environmental compliance costs through earlier  
14      retirement.

15      3. Ameren's standard IRP process is likely inadequate for addressing the economic risks  
16      facing the Company's existing coal units. Instead, a more rigorous, contested  
17      proceeding would be beneficial.

18      4. Ameren has overstated the typical amount of time needed to retire generating units.  
19      There are numerous recent examples of utilities developing plans to retire coal units  
20      within 3 to 5 years of a retirement decision.

1        *i. The historical net losses incurred by Ameren's coal units are broadly indicative of their*  
2        *market value.*

3        **Q What did your Direct Testimony demonstrate regarding the recent economic**  
4        **performance of Ameren's coal units?**

5        **A** My Direct Testimony showed that each of Ameren's Labadie, Rush Island, and Sioux coal  
6        units incurred more than \$20 million in net losses relative to marginal market replacement  
7        over the period from 2016 through 2018.<sup>1</sup>

8        **Q Ameren witness Matt Michels objects to your assessment of Ameren's coal units in part**  
9        **by arguing that a proper resource planning analysis should be conducted on a forward-**  
10       **looking basis.<sup>2</sup> Do you agree?**

11       **A** I generally agree that IRP resource evaluations should be conducted on a forward-looking  
12       basis. However, comparing the recent actual costs and revenues associated with a given  
13       generation unit provides a useful picture of the unit's current economic status. Such  
14       screening-level cash flow analyses can inform the need for more comprehensive, forward-  
15       looking unit disposition analyses. They also can help to calibrate and gauge the results of  
16       forward-looking assessments. For example, the recent marginal economic status of Ameren's  
17       coal units calls into question the credibility of Ameren's 2017 IRP conclusion that it would  
18       be tremendously costly to retire those units. This discrepancy between recent performance  
19       and Ameren's view of future performance is likely driven in part by the unreasonable  
20       assumptions regarding environmental compliance costs and replacement resource costs  
21       employed in Ameren's 2017 IRP.

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<sup>1</sup> Revenue Requirement Direct Testimony of Avi Allison at 10.

<sup>2</sup> Rebuttal Testimony of Matt Michels on Behalf of Ameren at 6.

1 **Q Mr. Michels also argues that your comparison of Ameren coal units' revenues and costs**  
2 **is irrelevant because Ameren is not a merchant generator.<sup>3</sup> How do you respond?**

3 **A** It is true that, as a vertically integrated utility, Ameren faces obligations that merchant  
4 generators do not. However, as discussed by Office of the Public Counsel (OPC) witness  
5 Geoff Marke, one of the objectives of utility regulation is to serve as a proxy for  
6 competition.<sup>4</sup> That is one reason why the merchant-equivalent cash flow analysis I present in  
7 my Direct Testimony serves as a useful screening-level assessment. No competitive entity  
8 would indefinitely continue operating a generating unit that incurs more costs than it earns in  
9 revenues every year.

10 **Q Mr. Michels suggests that you should have excluded capital costs from your cash flow**  
11 **analysis.<sup>5</sup> How do you respond?**

12 **A** This is not a reasonable suggestion. Mr. Michels presents Ameren's recent coal unit capital  
13 costs as if they were upfront construction costs that will allow Ameren's units to continue  
14 operating for decades without incurring additional major capital expenses. This is simply not  
15 the case. Ameren incurs hundreds of millions of dollars in capital expenditures at its coal  
16 units *every year* in order to keep those units operational.<sup>6</sup> It does not make sense to ignore  
17 these major, recurring, annual expenses or to account for only a small fraction of one year's  
18 capital expenses in each year assessed.

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<sup>3</sup> Rebuttal Testimony of Matt Michels at 6.

<sup>4</sup> Rebuttal Testimony of Geoff Marke on Behalf of OPC at 23.

<sup>5</sup> Rebuttal Testimony of Matt Michels at 8.

<sup>6</sup> Ameren Response to Data Request No. SC 1.15k (*see* Ex. AA-S-1).

1 **Q Do you have any observations regarding the impact of removing capital costs from your**  
2 **assessment of historical net revenues at Ameren’s coal units?**

3 **A** Yes. Table 1 shows that, even if one were to inappropriately remove capital costs entirely,  
4 my assessment would still show Sioux Units 1 and 2 as incurring net losses over the period  
5 from 2016 through 2018. This is an especially concerning indication that those units are  
6 likely uneconomic.

7 **Table 1. Sioux unit annual net revenues excluding capital costs, 2016-2018 (2018 \$Million)**

<b>Plant</b>	<b>Unit</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>Total</b>
Sioux	1	(\$10)	(\$1)	\$10	(\$2)
Sioux	2	(\$10)	(\$4)	\$13	(\$1)
<i>Sioux</i>	<i>All</i>	<i>(\$21)</i>	<i>(\$6)</i>	<i>\$23</i>	<i>(\$3)</i>

8 *Source: Ameren Response to Data Request Nos. SC 1.15 and SC 1.21; Synapse tabulation.*

9 **Q OPC witness Lena Mantle suggests that your coal unit analysis indicates that it would**  
10 **only be economic to retire Ameren’s coal units if stranded costs are not included in**  
11 **customer rates.<sup>7</sup> Do you agree with this interpretation?**

12 **A** No. My review of the historical costs and revenues of Ameren’s coal units was not intended  
13 to conclusively establish whether or not it would be economic to retire those units. A  
14 comprehensive forward-going analysis would be required for that purpose. In such an  
15 analysis, ongoing capital costs would be properly viewed as forward-going costs of  
16 operation, rather than sunk or stranded costs. If such an analysis were to confirm that  
17 Ameren’s coal units are likely to incur more costs—including ongoing capital costs—than  
18 they provide in value relative to replacement alternatives, then Ameren should pursue near-  
19 term retirements, irrespective of any potential for sunk or stranded costs.

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<sup>7</sup> Rebuttal Testimony of Lena Mantle on Behalf of OPC at 16.

1 **Q Mr. Michels argues that the results of your historical coal unit analysis arise from**  
2 **current MISO excess capacity conditions that are unlikely to continue.<sup>8</sup> Do you agree?**

3 **A** No. When asked for evidence of his claim that MISO excess supply conditions are “not likely  
4 to be sustained,” Mr. Michels cited the results of the 2019 OMS MISO Survey.<sup>9</sup> However,  
5 that document generally does not support the point that Mr. Michels seeks to make. Instead  
6 the 2019 OMS MISO Survey indicates that the MISO region may have even greater surplus  
7 capacity in 2023 and 2024 than it does today.<sup>10</sup> For Ameren’s MISO Zone 5 in particular, the  
8 2019 OMS Survey indicates that capacity surplus will be greater in 2024 than in 2020.<sup>11</sup> This  
9 suggests that capacity surplus conditions and low capacity prices are likely to continue.

10 **ii. Ameren’s largest 2018 capital expenditures at its coal units would likely have been**  
11 **unnecessary if those units were to retire by the end of 2023.**

12 **Q What did your Direct Testimony demonstrate regarding Ameren’s 2018 capital**  
13 **investments in its coal units?**

14 **A** My Direct Testimony showed that Ameren spent about \$219 million on incremental capital  
15 investments at its coal units in 2018.<sup>12</sup> I further observed that Ameren had not evaluated  
16 whether this scale of investment made economic sense in light of regulatory and economic  
17 pressures facing Ameren’s coal units.<sup>13</sup>

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<sup>8</sup> Rebuttal Testimony of Matt Michels at 7, 17.

<sup>9</sup> Attachment “SIERRA\_7-SC\_0007\_32-Att-SC 0007.32 Attach 20190614 OMS MISO 2019 Exec Summ 354508.pdf” to Ameren Response to Data Request No. SC 7.32 (see Ex. AA-S-1).

<sup>10</sup> *Id.* at 6.

<sup>11</sup> *Id.* at 7-8.

<sup>12</sup> Revenue Requirement Direct Testimony of Avi Allison at 8.

<sup>13</sup> Revenue Requirement Direct Testimony of Avi Allison at 14-15.

1 **Q How did Ameren respond to this observation?**

2 **A** In response to my testimony, Ameren states that it went back and reviewed all capital  
3 projects in excess of \$500,000 placed in service at its coal plants in 2018 and 2019.<sup>14</sup> Based  
4 on this review, Ameren witness Jim Williams asserts that each of these major capital  
5 investments would have been needed even if Ameren’s coal plants were to retire “shortly  
6 after 2024.”<sup>15</sup>

7 **Q Has Ameren identified the latest retirement date for which its major 2018 and 2019 coal**  
8 **unit investments would not have been needed?**

9 **A** No.<sup>16</sup> Ameren evidently only evaluated whether the expenditures in question would not be  
10 needed if one or more of its coal units were to retire “shortly after 2024.” It did not, for  
11 example, evaluate whether the expenditures would have been needed if Ameren’s coal units  
12 were to retire by the end of 2023.

13 **Q Is there reason to believe that many of Ameren’s largest 2018 coal unit expenditures**  
14 **would not have been needed if its coal units were to retire by the end of 2023?**

15 **A** Yes. The largest 2018 capital expenditures at Ameren’s coal units were associated with  
16 complying with federal coal combustion residuals (CCR) and effluent limitation guidelines  
17 (ELG) rules. Ameren data indicates that ELG and CCR expenses accounted for \$111 million  
18 of its major coal plant capital expenditures in 2018.<sup>17</sup> Both the ELG and CCR regulations  
19 were structured such that coal units could avoid the most costly compliance investments by

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<sup>14</sup> Rebuttal Testimony of Jim Williams on Behalf of Ameren at 4.

<sup>15</sup> *Id.*

<sup>16</sup> Ameren Response to Data Request No. SC 7.31(see Ex. AA-S-1).

<sup>17</sup> Attachment “SIERRA\_1-SC\_001\_6-Att-DR SC 1.6.xlsx” to Ameren Response to Data Request No. SC 1.6 (see Ex. AA-S-1).

1 retiring by the end of 2023.<sup>18</sup> This explains why Ameren’s ELG and CCR compliance  
2 investments at Meramec, which is slated to retire in 2022, are limited to ash pond closure  
3 expenditures, whereas ELG and CCR compliance costs at Labadie, Rush Island, and Sioux,  
4 include costly investments in dry ash conversion projects and wastewater treatment plants.<sup>19</sup>  
5 Ameren’s investments in these dry ash conversion and wastewater treatment projects at  
6 Labadie, Rush Island, and Sioux amounted to \$89 million in 2018 (see Table 2).<sup>20</sup> If Ameren  
7 were to retire these plants by the end of 2023, such investments likely would not have been  
8 needed. In limiting his assessment to the impact of a retirement “shortly after 2024,”  
9 Williams ignores the implications of potential near-term retirement dates for the  
10 reasonableness of Ameren’s recent compliance expenditures at its coal units.

11 **Table 2. Ameren coal unit major capital expenses, 2018**

<b>Capital Expense Type</b>	<b>Cost (\$Million)</b>	<b>% of All Major Capital</b>
<i>All</i>	<i>\$189</i>	<i>100%</i>
ELG/CCR	\$111	59%
Avoidable ELG/CCR	\$89	47%
Dry Ash Conversion	\$48	25%
Wastewater Treatment	\$40	21%

12 *Source: Attachment to Ameren Response to Data Request No. SC 1.6 (see see Ex. AA-S-1); Synapse tabulation.*

13 *Note: Includes only projects identified by Ameren as costing more than \$500,000.*

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<sup>18</sup> The ELG rule requires compliance with fly and bottom ash discharge requirements by the December 31, 2023. 40 C.F.R. §§ 423.13(h)(1)(i), (k)(1)(i). Thus, if a coal unit is no longer operating or discharging fly or bottom ash wastewater on December 31, 2023, capital investments would not be necessary to achieve compliance. Under the CCR rule, various compliance obligations may similarly be unnecessary if a generating unit permanently ceases operation by the end of 2023. 40 C.F.R. § 257.103.

<sup>19</sup> Schedule JLW-R1 to Rebuttal Testimony of Jim Williams on Behalf of Ameren; Ex. AA-D-9 to Direct Testimony of Avi Allison, Ameren 2017 IRP, Ch. 5 at 20-22.

<sup>20</sup> Attachment “SIERRA\_1-SC\_001\_6-Att-DR SC 1.6.xlsx” to Ameren Response to Data Request No. SC 1.6 (see Ex. AA-S-1).

1 **Q Was this same flaw present in Ameren’s 2017 IRP coal unit retirement assessments?**

2 **A** Yes. In addition to inappropriately ignoring likely compliance costs associated with reducing  
3 emissions of sulfur dioxide (SO<sub>2</sub>), Ameren’s 2017 IRP retirement assessments were  
4 inappropriately structured to ignore the potential for earlier retirements to avoid ELG and  
5 CCR compliance costs. The earliest retirement date examined in the Company’s IRP  
6 assessments of Labadie and Rush Island was December 31, 2024.<sup>21</sup> Such a retirement date  
7 assumption made little sense at the time of the analyses, as a 2024 retirement date would be  
8 just late enough that the coal units would be required to incur substantial ELG and CCR  
9 compliance costs prior to retiring.

10 **Q Are you aware of other utilities in the MISO region that performed economic**  
11 **assessments of whether to retire coal units by the end of 2023 rather than investing in**  
12 **ELG and/or CCR compliance technologies?**

13 **A** Yes. Northern Indiana Public Service Company (NIPSCO),<sup>22</sup> DTE Electric Company,<sup>23</sup> and  
14 Vectren Energy Delivery of Indiana, Inc.<sup>24</sup> each conducted such analyses. Each of these  
15 utilities concluded that it would reduce customer costs by retiring multiple existing coal units  
16 by the 2023 compliance deadline.

17 **Q What is the implication of the nature of ELG and CCR compliance requirements for**  
18 **Ameren’s 2018 coal unit capital investments?**

19 **A** The implication is that Ameren likely could have avoided at least \$89 million in capital  
20 expenditures during 2018 alone by deciding to retire its coal units by 2023. As I describe in

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<sup>21</sup> Ex. AA-D-7 to Direct Testimony of Avi Allison, Ameren 2017 IRP, Ch. 9 at 3-4.

<sup>22</sup> Ex. AA-D-26 to Direct Testimony of Avi Allison, NIPSCO, 2018 IRP at 145-155.

<sup>23</sup> Ex. AA-S-2, Opinion and Order, Mich. Pub. Serv. Comm’n Case No. U-18419 at 42 (Apr. 27, 2018).

<sup>24</sup> Ex. AA-S-3, Order of the Commission, Ind. Util. Reg. Comm’n Cause No. 45052 at 3-4 (Apr. 24, 2019).



1 my Direct Testimony, by 2017 Ameren knew or should have known that its coal fleet likely  
2 faced substantial SO<sub>2</sub> compliance costs, in addition to ELG and CCR compliance costs and  
3 economic pressure from declining renewable costs. Ameren therefore should have rigorously  
4 evaluated the economic case for retiring one or more of its Labadie, Rush Island, and Sioux  
5 units by the end of 2023 prior to investing in avoidable ELG and CCR expenditures at those  
6 units. Instead, Ameren's 2017 retirement assessments neglected to account for the ability to  
7 avoid any SO<sub>2</sub>, ELG, or CCR compliance costs at any of the Labadie, Rush Island, or Sioux  
8 coal units. In addition, Ameren's IRP analyses incorporated unreasonable renewable cost and  
9 capacity price assumptions that further biased its analyses in favor of continuing to operate  
10 its coal units.<sup>25</sup>

11 *iii. Ameren's IRP process may not be adequate for addressing the economic risks facing*  
12 *the Company's existing coal units.*

13 **Q Ameren argues that its 2020 IRP process is the appropriate forum to address long-term**  
14 **resource planning issues such as continued investment in the Company's coal units.**  
15 **How do you respond?**

16 **A** I agree that the economics of each of the Company's existing coal units should be a topic of  
17 analysis in Ameren's 2020 IRP. And I appreciate that the Company is now committing to  
18 evaluate the costs associated with court-ordered environmental compliance obligations at  
19 Rush Island and Labadie in its 2020 IRP retirement analyses.<sup>26</sup> However, I am concerned that  
20 Ameren's standard IRP process may not allow for sufficiently rigorous vetting of major  
21 decisions such as the timing of coal plant retirements. My understanding is that there is no  
22 requirement for a hearing in IRP cases, and that the Commission viewed Ameren's previous

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<sup>25</sup> Revenue Requirement Direct Testimony of Avi Allison at 16-25.

<sup>26</sup> Rebuttal Testimony of Matt Michels at 10.

1 IRP process as a “non-contested case.”<sup>27</sup> In my opinion, a fully contested proceeding would  
2 be appropriate for addressing the reasonableness of Ameren’s ongoing investments in its coal  
3 units in the face of substantial economic and regulatory risks. Such a proceeding would  
4 include a full discovery process, testimony, and a hearing.

5 **Q Do any other parties share your concern with the adequacy of Ameren’s IRP process**  
6 **for addressing coal unit retirement issues?**

7 **A** Yes. OPC witness Geoff Mark’s rebuttal testimony states that Ameren’s IRP process is not  
8 sufficient to address the feasibility and prudence of an immediate retirement for Labadie,  
9 Rush Island, and/or Sioux.<sup>28</sup>

10 **Q Ameren witness Matt Michels argues that because Ameren’s 2017 IRP was found to be**  
11 **in compliance with the Commission’s IRP rules, it provides a reasonable basis for**  
12 **ongoing investments in the Company’s coal units. Do you agree?**

13 **A** No. As I describe more fully in my Direct Testimony, the Company’s IRP retirement  
14 analyses suffered from major deficiencies relating to environmental compliance cost  
15 assumptions and replacement resource cost assumptions.<sup>29</sup> In fact, the Commission’s 2017  
16 IRP order stated that there were “important concerns and deficiencies” associated with  
17 Ameren’s IRP.<sup>30</sup> The Commission chose to accept Ameren’s IRP filing partly on the basis of  
18 Ameren’s commitment to “take various actions to improve its next IRP filing.”<sup>31</sup>  
19 Furthermore, the Commission’s IRP rules explicitly state that an acknowledgment that an

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<sup>27</sup> Order Regarding 2017 Integrated Resource Plan, Mo. Pub. Serv. Comm’n File No. EO-2018-0038 at 2 (June 27, 2018).

<sup>28</sup> Rebuttal Testimony of Geoff Marke at 13.

<sup>29</sup> Revenue Requirement Direct Testimony of Avi Allison at 16-25.

<sup>30</sup> Order Regarding 2017 Integrated Resource Plan, Mo. Pub. Serv. Comm’n File No. EO-2018-0038 at 2 (June 27, 2018).

<sup>31</sup> *Id.*

1 IRP achieves compliance with IRP requirements does *not* constitute a finding regarding the  
2 “prudence, pre-approval, or prior commission authorization of any specific project or group  
3 of projects.”<sup>32</sup> Finally, as I described in my Direct Testimony, since the filing of the 2017  
4 IRP there have been market and regulatory developments that have put additional economic  
5 pressure on Ameren’s coal units. Thus, Commission acknowledgment of the Company’s  
6 2017 IRP is not determinative of the reasonableness of the Company’s ongoing investments  
7 in its coal units.

8 *iv. Ameren overstates the amount of time typically needed to retire coal units.*

9 **Q** Ameren states that it often takes 7-10 years to develop the infrastructure necessary to  
10 retire generating units, and that it is therefore “very unlikely that such retirements  
11 could be carried out in the next 3-5 years.”<sup>33</sup> Do you agree?

12 **A** No. It is possible that under certain circumstances it may take seven years or more to  
13 implement the necessary infrastructure to allow for a generating unit retirement. However,  
14 there are numerous examples of cases where utilities have decided to retire coal units within  
15 five years of a retirement decision. Below are just a few such examples:

- 16 1. **NIPSCO.** Through its 2018 IRP process, NIPSCO decided to retire four of its five  
17 remaining coal units—representing more than 1,600 megawatts (MW) of capacity—  
18 by 2023, five years following the publication of the IRP.<sup>34</sup> Notably, the decision to  
19 retire these units by 2023 was made in part to avoid ELG and CCR compliance costs.  
20 In contrast, Ameren’s 2017 IRP, published a year before NIPSCO’s IRP, did not even

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<sup>32</sup> 20 CSR 4240-22.080(17).

<sup>33</sup> Rebuttal Testimony of Matt Michels at 12.

<sup>34</sup> Ex. AA-D-26 to Direct Testimony of Avi Allison, NIPSCO, 2018 IRP at 7.

1 assess the possibility of avoiding ELG and CCR compliance costs at Labadie, Rush  
2 Island, or Sioux by retiring one or more of those units by the end of 2023.

3 2. **Hoosier Energy.** In January 2020, Hoosier Energy announced a plan to retire its  
4 1,070 MW Merom coal plant in 2023, just three years following the announcement.<sup>35</sup>

5 3. **PacifiCorp.** As part of its 2019 IRP, PacifiCorp developed a new plan to retire its Jim  
6 Bridger Unit 1 by 2023, within four years of the IRP filing.<sup>36</sup> PacifiCorp's IRP also  
7 included plans to retire its two remaining Naughton coal units by 2025.

8 **Q Does Ameren's current system have characteristics that would make near-term coal**  
9 **retirements particularly feasible?**

10 **A** Yes. As shown in Ameren's 2017 IRP and highlighted in the testimony of OPC witness  
11 Geoff Marke, Ameren has far more generating capacity than it needs to meet its planning  
12 requirements.<sup>37</sup> This suggests that Ameren could retire multiple coal units without having to  
13 build or acquire any replacement capacity resources.

14 3. **AMEREN COAL UNIT COMMITMENT AND DISPATCH PRACTICES**

15 **Q Please summarize this section.**

16 **A** In this section, I respond to claims made by Ameren witnesses Andrew Meyer and Todd  
17 Schatzki regarding the Company's coal unit commitment and dispatch processes. I present  
18 the following observations:

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<sup>35</sup> Ex. AA-S-4, Hoosier Energy, *News Release: Hoosier Energy Announces New 20-Year Resource Plan* (Jan. 21, 2020), available at: <https://hoosierenergy.com/press-releases/hoosier-energy-announces-new-20-year-resource-plan/>.

<sup>36</sup> Ex. AA-S-5, PacifiCorp 2019 IRP at 13 (Oct. 18, 2019).

<sup>37</sup> Rebuttal Testimony of Geoff Marke at 4.

- 1           1. Recent substantial differences between Ameren's actual fuel costs and market coal  
2           prices are a major cause for concern. It appears that Ameren may not be taking  
3           sufficient steps to avoid paying above-market prices for coal.
  
- 4           2. Ameren has not provided any evidence to support the reasonableness of its unit  
5           commitment process. The Company's claims that its unit commitment decision  
6           processes are informed by rigorous analyses are undermined by the fact that Ameren  
7           has deleted all evidence of any such analyses.
  
- 8           3. The Commission cannot reasonably rely on MISO for oversight of Ameren's unit  
9           commitment practices. MISO does not review Ameren's self-commitment decisions  
10          and the Company's self-commitment practices mean that the commitment of  
11          Ameren's coal units is determined outside of MISO's economic optimization  
12          framework.
  
- 13          4. Ameren's own analyses show that the Company incurred unnecessary net operational  
14          losses on at least three occasions in 2018.
  
- 15          5. Ameren's rebuttal testimony demonstrates the bias in the Company's approach to the  
16          commitment of its coal units. The Company applies a higher standard to a decision to  
17          take a unit offline than it does to a decision to bring a unit back online following an  
18          outage.
  
- 19          6. Ameren's unit commitment and dispatch practices should be a subject of review in  
20          each FAC prudence review proceeding.

1        *i. Substantial differences between Ameren coal unit incurred fuel costs and asserted*  
2        *marginal fuel costs are a cause for concern.*

3        **Q How did Ameren respond to your Direct Testimony assessment of the Company's coal**  
4        **unit commitment and dispatch practices?**

5        **A** Ameren witnesses Andrew Meyer and Todd Schatzki argued that my evaluation of the  
6        Company's coal unit commitment and dispatch practices improperly relied on the actual fuel  
7        costs incurred by those units rather than the marginal fuel costs associated with the dispatch  
8        of those units.<sup>38</sup>

9        **Q Do you agree that Ameren's offer prices and operational decisions should rely on**  
10       **marginal costs rather than fixed costs?**

11       **A** Yes. Generally, offer prices and dispatch decisions should reflect marginal, variable costs  
12       that can be avoided through a decision to not run a unit.

13       **Q Why, then, did your Direct Testimony assessment of Ameren's coal unit dispatch**  
14       **practices incorporate estimates of accounting fuel costs rather than what Ameren**  
15       **describes as marginal fuel costs?**

16       **A** In discovery, Sierra Club had asked Ameren "if there are any fuel costs at Ameren Missouri's  
17       coal units that Ameren considers fixed for the purposes of dispatch." Ameren responded  
18       "None."<sup>39</sup> I took Ameren at its word that none of its fuel costs were fixed and that all fuel  
19       costs were variable, marginal costs of operation. If all fuel costs are variable for the purposes  
20       of dispatch, then accounting fuel costs should be similar to marginal fuel costs. Under such  
21       circumstances, generation offers, which should incorporate non-fuel variable operations and

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<sup>38</sup> Rebuttal Testimony of Andrew Meyer on Behalf of Ameren at 19-24; Rebuttal Testimony of Todd Schatzki on Behalf of Ameren at 5-8.

<sup>39</sup> Ameren Response to Data Request No. SC 1.22b (*see* Ex. AA-S-1).

1 maintenance (O&M) costs, should generally be higher than actual fuel costs. Instead, as my  
2 Direct Testimony showed, in 2018 Ameren consistently submitted generation offers at prices  
3 that were well below its actual fuel costs.<sup>40</sup>

4 **Q What is the basis for the discrepancy that Ameren now alleges exists between actual**  
5 **fuel costs and marginal fuel costs at its coal units?**

6 **A** The reason for this alleged discrepancy is that the actual price that Ameren has paid for coal  
7 has consistently been higher than market prices. Ameren witness Andrew Meyer explains  
8 that due to the details of the Company's coal contracts, the market spot price for coal  
9 represents the marginal cost of burning more fuel at Ameren's coal units.<sup>41</sup> Since the actual  
10 cost of coal burned at Ameren's coal units was consistently higher than market spot prices in  
11 2018, Ameren asserts that its marginal fuel costs were substantially lower than its actual fuel  
12 costs.<sup>42</sup> In essence, Ameren is now saying that in 2018 a large portion of its fuel costs were  
13 fixed for the purposes of dispatch because they could not be avoided under the terms of its  
14 coal supply contracts.

15 **Q Mr. Meyer asserts that as 2018 progressed and deliveries under preexisting, higher**  
16 **priced contracts were replaced by deliveries under new, lower priced contracts,**  
17 **Ameren's "accounting and market prices for coal trended much closer." Do you agree**  
18 **with this characterization?**

19 **A** Yes, to a point. The data I reviewed and presented in my Direct Testimony does show that  
20 the average coal cost actually paid by Ameren declined over the course of 2018.<sup>43</sup> However,  
21 this data also indicates that the offer prices submitted by Ameren continued to be lower than

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<sup>40</sup> Revenue Requirement Direct Testimony of Avi Allison at 38-41.

<sup>41</sup> Rebuttal Testimony of Andrew Meyer at 24.

<sup>42</sup> *Id.* at 24-25.

<sup>43</sup> Revenue Requirement Direct Testimony of Avi Allison at 38-41.

1 the actual fuel prices incurred at its coal units through the end of 2018. This suggests that,  
2 under the new contracts signed in 2018, Ameren continued to pay coal prices that were  
3 higher than market spot prices.

4 **Q Do you have any concerns with the consistent discrepancy between the prices that**  
5 **Ameren pays for coal and market spot prices?**

6 **A** Yes. This discrepancy raises the concern that Ameren is consistently over-paying for fuel. In  
7 addition, it appears that Ameren's generation offer practices allow for the possibility that the  
8 Company's coal units will be dispatched above their minimum operating levels even when  
9 their fuel costs, which are typically considered to be variable costs of production, are higher  
10 than the units' energy value.

11 **Q Ameren indicates that it could not have avoided the incremental fuel costs associated**  
12 **with the difference between the Company's fuel contract prices and prevailing spot**  
13 **market prices.<sup>44</sup> How do you respond?**

14 **A** It is not clear that this is the case. Ameren suggests that not taking receipt of an above-market  
15 fuel contract would ultimately harm customers but does not provide any evidence to support  
16 that claim.<sup>45</sup> On the contrary, in discovery Ameren indicated that it has never attempted to  
17 refuse delivery of an above-market fuel contract and has never investigated defaulting on a  
18 contract on the basis of that contract including a price that is too far above market prices.<sup>46</sup>  
19 At a minimum, Ameren should be evaluating the economic case for either re-negotiating or  
20 defaulting on its above-market fuel contracts. In addition, Ameren should certainly not be  
21 signing *new* contracts that are above prevailing and expected market prices.

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<sup>44</sup> Rebuttal Testimony of Andrew Meyer at 24-25.

<sup>45</sup> *Id.*

<sup>46</sup> Ameren Response to Data Request No. SC 8.9 (*see* Ex. AA-S-1).



1        **ii. Ameren has not provided any evidence to support the reasonableness of its unit**  
2        **commitment process.**

3        **Q Ameren repeatedly complains of the use of hindsight in your Direct Testimony analysis**  
4        **of the Company’s unit commitment decisions.<sup>47</sup> Why did your analysis rely primarily**  
5        **on actual operational data rather than contemporaneous forecast data from the time of**  
6        **Ameren’s commitment decisions?**

7        **A My analysis relied primarily on actual historical data because Ameren overwrote all data and**  
8        **analyses from the time of its unit commitment decisions.<sup>48</sup> It is entirely unreasonable for**  
9        **Ameren to delete the data it used to inform its unit commitment decisions and then complain**  
10       **about stakeholders using the most useful information available—actual data—rather than the**  
11       **data that the Company chose to delete. Ameren should not be given the “benefit of the**  
12       **doubt” and rewarded for its inappropriate practice of deleting its data.**

13       **Q In instances where Ameren’s coal units incurred operational losses, Ameren claims that**  
14       **contemporaneous forecasts of market prices likely did not reveal the negative margins**  
15       **and losses that actually occurred.<sup>49</sup> Has Ameren provided any evidence to support this**  
16       **claim?**

17       **A No. Such claims are pure speculation. Ameren has deleted all evidence regarding what its**  
18       **contemporaneous forecasts indicated regarding margins and unit-specific operational losses**  
19       **in 2018.**

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<sup>47</sup> Rebuttal Testimony of Andrew Meyer at 26; Rebuttal Testimony of Todd Schatzki at 21.

<sup>48</sup> Ameren Response to Data Request No. SC 1.24c (see Ex. AA-S-1).

<sup>49</sup> Rebuttal Testimony of Andrew Meyer at 29.

1 **Q Ameren outside witness Todd Schatzki argues that Ameren’s coal unit self-commitment**  
2 **decisions are reasonably grounded in the Company’s analyses of the profitability of**  
3 **committing its units.<sup>50</sup> Did Mr. Schatzki provide any evidence to support this claim?**

4 **A** No. In discovery, Ameren admitted that Mr. Schatzki has not reviewed any of Ameren’s unit  
5 commitment analyses.<sup>51</sup> Thus, Mr. Schatzki’s claims about the reasonableness of such  
6 analyses appear to be mere repetition of what he has been told by Ameren.

7 **Q Mr. Meyer’s rebuttal testimony states that the Company “does not object to retaining**  
8 **the analysis used in making its unit commitment decisions and is already actively**  
9 **working to amend its analysis processes to allow for retention of this data.”<sup>52</sup> How do**  
10 **you respond?**

11 **A** I appreciate that Ameren now intends to correct its problematic practice of overwriting its  
12 unit commitment analyses. However, I still believe that a Commission order requiring  
13 Ameren to retain the data and analyses used to inform its unit commitment decisions would  
14 be useful. Until Ameren has corrected its practice of deleting contemporaneous forecasts, I  
15 believe the best data available to evaluate Ameren’s unit commitment practice remains actual  
16 historical prices and operational data.

17 **iii. The Commission should not rely on MISO for oversight of Ameren’s unit commitment**  
18 **practices.**

19 **Q Ameren objects to your characterization of the Company’s unit commitment decisions**  
20 **as ungoverned by market forces, arguing that the Company’s consideration of market**  
21 **risks and costs in its unit commitment decisions amounts to government by market**

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<sup>50</sup> Rebuttal Testimony of Todd Schatzki at 15-16.

<sup>51</sup> Ameren Response to Data Request No. SC 7.38 (see Ex. AA-S-1).

<sup>52</sup> Rebuttal Testimony of Andrew Meyer at 29.

1 forces.<sup>53</sup> Can you clarify what you meant when you said that the extent to which  
2 Ameren's coal units are online is largely "ungoverned by market forces"?

3 A Yes. I meant that, since Ameren almost exclusively self-commits its coal units, the  
4 commitment of these units is neither the result of market competition nor an outcome of  
5 MISO market optimization. Ameren independently commits these units outside of MISO's  
6 process for economic commitment. Whether Ameren's commitment decisions are informed  
7 by sound consideration of market factors is a subject worthy of careful Commission review,  
8 not something that should be summarily asserted and accepted without supporting evidence.  
9 That is why it is important to be able to review the data and analyses used by Ameren to  
10 inform its unit commitment decisions. In this proceeding, Ameren has provided zero  
11 evidence to support the claim that its unit commitment process properly accounts for market  
12 forces.

13 Q Ameren suggests that the review of MISO's Independent Market Monitor (IMM)  
14 applies market forces to the Company's unit commitment decisions.<sup>54</sup> Do you agree?

15 A No. There is no basis for this claim. Ameren has acknowledged that it is not aware of any  
16 instances in which the MISO IMM has reviewed Ameren's self-commitment process or  
17 decisions.<sup>55</sup> I would further note that it would have been very difficult for the MISO IMM to  
18 vet Ameren's unit commitment process, given Ameren's practice of deleting the basis for its  
19 commitment decisions.

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<sup>53</sup> Rebuttal Testimony of Andrew Meyer at 35.

<sup>54</sup> Rebuttal Testimony of Andrew Meyer at 31; Rebuttal Testimony of Todd Schatzki at 16.

<sup>55</sup> Ameren Response to Data Request No. SC 7.39; Ameren Response to Data Request No. SC 7.28 (see Ex. AA-S-1).

1 **Q Ameren witness Todd Schatzki argues that Ameren’s use of profitability analyses in its**  
2 **unit commitment process means that the Company’s unit commitment decisions reflect**  
3 **market forces in the same way as decisions in other industries.<sup>56</sup> Do you agree?**

4 **A** No. This strange argument ignores the crucial fact that in most industries competition and  
5 customer choice are the market forces that discipline business decisions. Ameren, in contrast,  
6 is a monopoly that is able to pass 95 percent of all fuel cost—including any unprofitably  
7 incurred fuel costs—through to captive customers in the absence of Commission oversight.<sup>57</sup>  
8 Ameren’s claim that it conducts internal profitability assessments—analyses that neither Mr.  
9 Schatzki nor the Commission have been able to review—is no replacement for the discipline  
10 of market competition or Commission scrutiny.

11 **Q Ameren identifies certain flaws with the existing MISO economic commitment**  
12 **process.<sup>58</sup> Do these flaws mean that the Commission should blindly accept Ameren’s**  
13 **self-commitment decisions?**

14 **A** No. I agree with Ameren that the combination of the inflexibility of the Company’s coal units  
15 and the short timeframe accounted for in MISO’s commitment process means that it may  
16 make sense for the Company to self-commit its coal units *in some cases*. However, a general  
17 role for self-commitment under current market rules does not justify every specific self-  
18 commitment decision. The proper Commission response to the Company’s commitment  
19 practices is to carefully review Ameren’s unit commitment decisions and not assume that  
20 such decisions are prudent. In addition, the Commission should support efforts to revise  
21 MISO’s economic commitment process to account for unit lead times and cycling costs.

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<sup>56</sup> Rebuttal Testimony of Todd Schatzki at 16.

<sup>57</sup> Under the Company’s FAC, 95 percent of incremental fuel costs are borne by customers, whereas 5 percent are borne by Ameren. *See* Direct Testimony of Marc. L. Althoff on Behalf of Ameren at 3.

<sup>58</sup> Rebuttal Testimony of Andrew Meyer at 31.

1 *iv. Ameren's analyses show that the Company incurred unnecessary net operational*  
2 *losses in 2018.*

3 **Q How did Ameren respond to your Direct Testimony analyses indicating that Ameren's**  
4 **unit commitment practices led the Company to incur at least \$861,000 in net**  
5 **operational losses in 2018?**

6 **A** Ameren witness Andrew Meyer argued that many of the fuel costs accounted for in my  
7 analyses were fixed for the purposes of unit commitment and dispatch decisions.<sup>59</sup> This  
8 marked a departure from Ameren's previous claims that none of its fuel costs were fixed for  
9 the purposes of dispatch. Mr. Meyer presented an alternative set of analyses in which he  
10 revised my analyses to include only those fuel costs he views as marginal costs.

11 **Q Generally, what do Mr. Meyer's revised analyses indicate?**

12 **A** Unsurprisingly, when Mr. Meyer removes a substantial portion of actually incurred fuel costs  
13 from my analysis, he finds that the operational performance of Ameren's fuel units was more  
14 profitable and less harmful than indicated by my analysis. Mr. Meyer argues that his revised  
15 analysis shows that Ameren committed its coal units prudently in each of the four instances I  
16 discussed in my Direct Testimony.<sup>60</sup>

17 **Q Do you agree that Mr. Meyer's analyses establish that the Company operated prudently**  
18 **in the four self-commitment examples he discusses?**

19 **A** No. Even under the assumption that many of Ameren's 2018 fuel costs were fixed, and that  
20 Ameren's generation offer prices reflected the Company's marginal costs of production, Mr.  
21 Meyer's analyses indicate that the Company's commitment practices likely resulted in

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<sup>59</sup> Rebuttal Testimony of Andrew Meyer at 26.

<sup>60</sup> *Id.* at 27.

1       avoidable net operational losses in three of the four examples he discusses. These instances  
2       include the decision to bring Sioux Unit 1 back online following an outage in February 2018,  
3       the choice to keep Sioux Unit 1 online through February and March 2018, and the decision to  
4       bring Labadie Unit 2 back online following an outage in March 2018.

5       **Q Please explain what Mr. Meyer’s analysis shows with respect to Ameren’s decision to**  
6       **bring Sioux Unit 1 back online following an outage in February 2018.**

7       **A** Mr. Meyer argues that his revised analysis indicates that Sioux Unit 1 actually earned  
8       \$13,864 in net operational profits during the two weeks following the unit’s return from  
9       outage on February 20.<sup>61</sup> However, Mr. Meyer’s analysis also shows that Sioux Unit 1  
10       incurred net operational losses during the hours and days immediately following its return  
11       from its February outage. Mr. Meyer’s analysis indicates that Sioux Unit 1 incurred net  
12       operational losses of \$17,931 during the first 19 hours following its return from an outage  
13       and \$16,185 during the first full 24 hours after coming back online.<sup>62</sup> In addition, Ameren’s  
14       analysis indicates that Sioux Unit 1 incurred net operational losses of \$6,459 between the  
15       hour in which it returned to operation and the morning of March 15, 13 days later. This  
16       confirms that, as indicated in my Direct Testimony, Ameren would have saved customers  
17       money by extending the Sioux Unit 1 outage.

18       **Q Please explain what Mr. Meyer’s analysis shows with respect to Ameren’s decision to**  
19       **keep Sioux Unit 2 online throughout February and March 2018.**

20       **A** Mr. Meyer’s analysis indicates that Sioux Unit 2 incurred \$50,713 in net operational losses  
21       during the period from February 9 through March 14.<sup>63</sup> Mr. Meyer argues that this level of  
22       losses was not sufficient to justify taking Sioux Unit 2 offline, because it is less than the

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<sup>61</sup> Rebuttal Testimony of Andrew Meyer at 27.

<sup>62</sup> Ameren Workpaper “Meyer Rebuttal Workpapers Confidential.xlsx,” tab “Sioux 1 Event.”

<sup>63</sup> Rebuttal Testimony of Andrew Meyer at 29.

1 \$87,000 hurdle rate that Ameren applies to decommit decisions.<sup>64</sup> However, Mr. Meyer's  
2 analysis indicates that Sioux Unit 2 incurred net operational losses of \$93,069 during a  
3 period from February 23 through March 4.<sup>65</sup> This is \$6,069 greater than Ameren's claimed  
4 decommit hurdle rate and \$81,069 greater than Sioux Unit 2's cold startup costs. This  
5 confirms that, as indicated in my Direct Testimony, Ameren likely would have saved  
6 customers money by decommitting Sioux Unit 1 for a period of February and March 2018.

7 **Q Please explain what Mr. Meyer's analysis shows with respect to Ameren's decision to**  
8 **bring Labadie Unit 2 back online following an outage in March 2018.**

9 **A** Mr. Meyer argues that his revised analysis indicates that Labadie Unit 2 earned \$154,030 in  
10 net operational profits during the week following the unit's return from outage on March  
11 24.<sup>66</sup> However, Mr. Meyer's analysis also shows that Labadie Unit 2 incurred net operational  
12 losses during the hours immediately following its return from its March outage. Mr. Meyer's  
13 analysis indicates that Labadie Unit 2 incurred net operational losses of \$7,415 during the  
14 first 14 hours following its return from an outage and \$4,802 during the first full 24 hours  
15 after coming back online.<sup>67</sup> This suggests that, as stated in my Direct Testimony, Ameren's  
16 customers would have benefited from the Company waiting for higher energy prices to bring  
17 Labadie Unit 2 back online in March 2018.

18 **Q Under Mr. Meyer's incremental cost assumptions, what are the total net operational**  
19 **losses associated with these three events?**

20 **A** Mr. Meyer's analysis indicates that the Company could have avoided a total of \$31,414 in  
21 net operational losses across these three events.

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<sup>64</sup> Rebuttal Testimony of Andrew Meyer at 28-29.

<sup>65</sup> Ameren Workpaper "Meyer Rebuttal Workpapers Confidential.xlsx," tab "Sioux 2 Event."

<sup>66</sup> Rebuttal Testimony of Andrew Meyer at 29-30.

<sup>67</sup> Ameren Workpaper "Meyer Rebuttal Workpapers Confidential.xlsx," tab "Labadie 2 Event."

1 v. Ameren's rebuttal testimony demonstrates the bias in the Company's approach to the  
2 commitment of its coal units.

3 **Q What general concerns did your Direct Testimony express regarding Ameren's unit**  
4 **commitment process?**

5 **A** My Direct Testimony expressed the concern that Ameren's unit commitment process may be  
6 biased in favor of keeping the Company's coal units online. Specifically, I raised the concern  
7 that Ameren may not apply the same degree of rigor to a decision to bring a coal unit back  
8 online as it does to a decision to decommit a unit.<sup>68</sup>

9 **Q How did Ameren respond to this concern?**

10 **A** Ameren asserted that it does apply the same degree of rigor to a decision to bring a unit back  
11 online as it does to a decision to decommit a unit.<sup>69</sup>

12 **Q Are there any elements of Ameren's rebuttal testimony that reinforce your concerns**  
13 **with bias in Ameren's unit commitment process?**

14 **A** Yes. The different standards that Mr. Meyer applies to a decision regarding whether to bring  
15 Sioux Unit 1 back online following an outage and a decision regarding whether to decommit  
16 Sioux Unit 2 exemplify the bias that I described in my Direct Testimony.

17 **Q What hurdle rate does Ameren say it applies to a decision to decommit either of the**  
18 **Sioux units?**

19 **A** Ameren states that it applies a hurdle rate of \$87,000 when considering whether to decommit  
20 one of the Sioux units.<sup>70</sup> In other words, the Company requires that its analyses indicate that

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<sup>68</sup> Revenue Requirement Direct Testimony of Avi Allison at 37.

<sup>69</sup> Rebuttal Testimony of Andrew Meyer at 35.



1 a Sioux unit will incur net operational losses greater than \$87,000 over its commitment  
2 analysis period in order to consider taking that unit offline for economic reasons.

3 **Q What is the basis for the \$87,000 hurdle rate?**

4 **A** The \$87,000 hurdle rate includes both \$12,000 in cold startup costs and an additional  
5 \$75,000 associated with repairing damages that result when the Sioux units are cycled on and  
6 offline.<sup>71</sup> According to the Company, the Sioux units are so inflexible and brittle that they  
7 incur costly damage to boiler tubes every time they are taken offline.<sup>72</sup>

8 **Q Did Ameren apply this \$87,000 hurdle rate in its assessment of the Company's decision**  
9 **to keep Sioux Unit 2 online throughout February and March 2018?**

10 **A** Yes. Mr. Meyer's testimony indicated that Sioux Unit 2 incurred net operational losses of  
11 \$82,908.45 from February 4 to March 2, but Ameren concluded that it was reasonable to  
12 keep the unit online because this value is less than the \$87,000 hurdle rate.<sup>73</sup>

13 **Q Did Ameren apply this \$87,000 hurdle rate in its assessment of the Company's decision**  
14 **to bring Sioux Unit 1 back online following an outage in February 2018?**

15 **A** No. Ameren defended its decision to bring Sioux Unit 1 back online based on its calculation  
16 of positive margins of \$13,864 during the two weeks following that unit's return from

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<sup>70</sup> Rebuttal Testimony of Andrew Meyer at 28-29.

<sup>71</sup> Rebuttal Testimony of Andrew Meyer at 28-29. I would note that when asked for all analyses supporting its Sioux unit cycling cost assumption, the Company simply asserted that the value was based on "discussions with the energy center," making it very difficult for the Commission or parties to verify or evaluate this assumption. Ameren Response to Data Request No. SC 8.11 (*see* Ex. AA-S-1).

<sup>72</sup> Ameren Response to Data Request No. SC 7.23 (*see* Ex. AA-S-1).

<sup>73</sup> Rebuttal Testimony of Andrew Meyer at 29. As described above, the documentation underlying Mr. Meyer's testimony actually indicates that Sioux Unit 2 incurred more than \$93,000 in net operational losses during an uninterrupted stretch between February 23 and March 4.

1 outage.<sup>74</sup> Ameren explained that this value is greater than Sioux Unit 1's \$12,000 startup  
2 costs, and thus justified bringing Sioux Unit 1 back online.<sup>75</sup>

3 **Q Was there any period during the two weeks following Sioux Unit 1's return from outage**  
4 **in February 2018 when that unit incurred net operational revenues greater than**  
5 **\$87,000?**

6 **A No.**

7 **Q What is the implication of the difference between the hurdle rate applied by Ameren to**  
8 **its assessments of past decisions to bring a Sioux unit back online and the hurdle rate**  
9 **applied to a decision to take a Sioux unit offline?**

10 **A** The difference in hurdle rates applied in Ameren's testimony reflects an unreasonable bias in  
11 favor of keeping coal units online and against taking them offline. The hurdle rate that  
12 Ameren applied to a decision to take a unit offline is more than eight times greater than the  
13 hurdle rate applied to a decision to bring the same type of unit online. There is no reasonable  
14 basis for this discrepancy.

15 **Q Why does it not make sense to apply a higher hurdle rate to a decision to bring a unit**  
16 **offline compared to a decision to bring a unit back online?**

17 **A** Every Ameren unit spends at least some time online and some time offline in every year. It is  
18 reasonable to expect that whenever a unit is taken offline for economic reasons it will be  
19 brought online again at some future date. Similarly, whenever a unit is brought online  
20 following an outage it is obvious that the unit will be taken offline again at some future date.  
21 The question is then whether that unit will earn sufficient net operational revenues between

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<sup>74</sup> Rebuttal Testimony of Andrew Meyer at 27-28.

<sup>75</sup> *Id.*

1 the most recent outage and some future outage to recover the costs of cycling the unit on and  
2 offline. This is the exact inverse of the question as to whether taking a unit offline will avoid  
3 sufficient net operational losses to justify the cost of cycling the unit off and online. The  
4 hurdle rate applied to these two types of decisions should be the same. Ameren's application  
5 of different hurdle rates to the two types of decisions is a clear marker of bias.

6 *vi. Ameren's unit commitment and dispatch practices should be a subject of review in*  
7 *each FAC prudence review proceeding.*

8 **Q In your Direct Testimony, you suggested that Ameren's FAC adjustment filing process**  
9 **should be revised to allow for sufficiently rigorous evaluation of the Company's**  
10 **commitment and dispatch practices. How did Ameren and other parties respond to this**  
11 **recommendation?**

12 **A** Ameren responded that the Company's FAC prudence review proceedings are a more  
13 appropriate venue for evaluating unit commitment and dispatch practices.<sup>76</sup> Staff and OPC  
14 similarly recommended that review of the Company's unit commitment and dispatch  
15 practices be focused in the prudence review component of Ameren's FAC process.<sup>77</sup>

16 **Q Having reviewed the testimony of Ameren, Staff, and OPC, do you now agree that**  
17 **FAC's adjustment filing process need not be modified to allow for review of the**  
18 **Company's commitment and dispatch practices?**

19 **A** Yes. Having reviewed the testimony of Ameren, Staff, and OPC, I accept that the Company's  
20 FAC prudence review proceedings are the appropriate FAC proceedings for review of  
21 Ameren's unit commitment and dispatch practices. I no longer believe it is necessary or

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<sup>76</sup> Rebuttal Testimony of Tom Byrne on Behalf of Sierra Club at 57-58.

<sup>77</sup> Rebuttal Testimony of Lisa Wildhaber on behalf of Staff at 9-10; Rebuttal Testimony of Lena Mantle at 18.

1       advisable to revise the FAC adjustment filing process to allow for the review of such  
2       practices.

3       **Q Ameren suggests that any minimum filing requirements related to its unit commitment**  
4       **decisions should be limited to the Company’s coal units and should only apply to rate**  
5       **cases. How do you respond?**

6       **A** Since the Company’s self-commitment decisions pertain primarily to its coal units, it may be  
7       reasonable to limit such minimum filing requirements to those units. However, I believe that  
8       the Commission should require the Company to provide the minimum commitment-related  
9       information identified in my Direct Testimony<sup>78</sup> upon the initiation of its FAC prudence  
10      review proceedings as well as its rate cases.

11      **Q Does this conclude your surrebuttal revenue-requirement testimony?**

12      **A** Yes, it does.

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<sup>78</sup> Revenue Requirement Direct Testimony of Avi Allison at 43.

ER-2019-0335

**Style of Case:** In the Matter of Union Electric Company d/b/a Ameren Missouri's Tariffs to Decrease Its Revenues for Electric Service

Attachments to be copied over to Exhibit No. 550 – Revenue Requirement Direct Testimony of Avi Allison from what has already been filed previously in EFIS, as they are direct attachments to the exhibit that was presented during the hearing.

Exhibit No. 551 – Revenue Requirement Direct Testimony of Avi Allison

- Line No. 208
  - **Ex. aa-s-1:** Ameren Responses to Data Requests
    - **aa-s-1.1** - sierra\_1-sc\_001\_6-att-dr sc 1.6.xlsx (copied exactly how it shows in EFIS - hardcopy received)
  - **Ex. aa-s-2:** Opinion and Order, Mich. Pub. Serv. Comm'n Case No. U-18419 (Apr. 27, 2018)
  - **Ex. aa-s-3:** Order of the Commission, Ind. Util. Reg. Comm'n Cause No. 45052 (Apr. 24, 2019)
  - **Ex. aa-s-4:** Hoosier Energy, News Release: Hoosier Energy Announces New 20-Year Resource Plan (Jan. 21, 2020)
  - **Ex. aa-s-5:** PacificCorp 2019 IRP (Oct. 18, 2019)