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Witness: William W. Dunkel
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Case No.: ER-2010-0036
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BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of Union Electric Company d/b/a)
AmerenUE Tariffs to Increase Its Annual) Case No. ER-2010-0036
Revenues for Electric Service)

REBUTTAL TESTIMONY AND SCHEDULES

OF

WILLIAM W DUNKEL

ON BEHALF OF

MISSOURI INDUSTRIAL ENERGY CONSUMERS

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

**In the Matter of Union Electric
Company, d/b/a AmerenUE's
Tariffs to Increase Its Annual
Revenues for Electric Service**

**Case No. ER-2010-0036
Tariff Nos. YE-2010-0054
and YE-2010-0055**

**STATE OF ILLINOIS)
) SS
COUNTY OF SANGAMON)**

Affidavit of William W. Dunkel

William W. Dunkel, being first duly sworn, on his oath states:

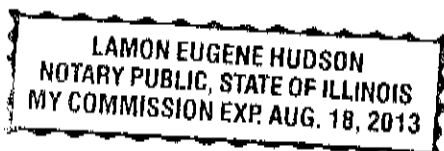
1. My name is William W. Dunkel. I am a consultant with William Dunkel and Associates, having its principal place of business at 8625 Farmington Cemetery Road, Pleasant Plains, Illinois, 62677. We have been retained by the Missouri Industrial Energy Consumers in this proceeding on their behalf.

2. Attached hereto and made a part hereof for all purposes is my rebuttal testimony and schedules which were prepared in written form for introduction into evidence in Missouri Public Service Commission Case No. ER-2010-0036.

3. I hereby swear and affirm that the testimony and schedules are true and correct and that they show the matters and things that they purport to show.

William W. Dunkel
William W. Dunkel

Subscribed and sworn to before me this 11th day of February 2010.



[Signature]
Notary Public

Table of Contents

Introduction.....	1
Steam Production Terminal Net Salvage.....	3
Net Salvage for Transmission, Distribution and General Plant.....	15
Conclusion	22

Introduction

Q. Please state your name and address.

A. My name is William W. Dunkel. My business address is 8625 Farmington Cemetery Road, Pleasant Plains Illinois, 62677.

Q. What is your present occupation?

A. I am the principal of William Dunkel and Associates, which was established in 1980. Since that time, I have regularly provided consulting services in utility regulatory proceedings throughout the country. I have participated in over 200 state regulatory proceedings before over one-half of the state commissions in the United States. I have participated in utility regulatory proceedings for over 30 years.

Q. Have you previously provided expert testimony before this Commission?

A. Yes, recently I have provided expert testimony in the AmerenUE electric rate proceeding, Case No. ER-2008-0318; in the Missouri American Water Company general rate proceeding, Case No. WR-2008-0311; in The Empire District Electric Company Depreciation rates proceeding, Case No. ER-2008-0093; and in the AmerenUE electric rate proceeding, Case No. ER-2007-0002. I have also participated in many other Missouri proceedings, as can be seen on the attached Appendix A.

Q. Have you prepared an appendix that describes your qualifications?

A. Yes. My qualifications are shown on Appendix A.

1 **Q. On whose behalf are you providing testimony?**

2 A. I am providing this testimony on behalf of the Missouri Industrial Energy
3 Consumers (MIEC).

4 **Q. What is the purpose of this rebuttal testimony?**

5 A. The primary purpose of this rebuttal testimony is to propose an adjustment to the
6 Staff proposed depreciation rates to conform to the Commission policy pertaining
7 to terminal net salvage. I propose removal of the \$5.8 million in annual accruals
8 that Staff included for future steam production terminal net salvage. The Staff
9 testimony states that the Staff is following the depreciation policies as stated by
10 the Commission in the Empire District Electric Company Case No. ER-2004-
11 0570 (Empire case). In the Empire case, the Commission stated that the
12 Commission policy is generally not to allow an accrual for future terminal net
13 salvage. The Commission stated: "The Missouri Public Service Commission has
14 not generally granted net salvage for final retirement of generation plant (terminal
15 net salvage)."¹ In the current case, AmerenUE recognized that this was the
16 Commission policy and did not include terminal net salvage recovery in the
17 AmerenUE proposed depreciation rates. However, in the current case the Staff-
18 proposed depreciation rates do effectively include the recovery of future terminal
19 net salvage for steam production, which is contrary to the Commission policy. In
20 this testimony, I propose adjusting the Staff proposed steam production

¹ Page 29, Report and Order in the Empire Case No. ER-2004-0570, dated March 10, 2005.

1 depreciation rates to conform to the Commission policy pertaining to terminal net
2 salvage.

3 The second issue I will address is the net salvage for distribution, transmission,
4 and general plant. Specifically, I will address Staff Schedule AWR-6A, which
5 shows that Staff-proposed annual accruals for net salvage will collect \$37 million
6 more for net salvage per year than AmerenUE is expected to spend per year for
7 net salvage.² This Staff calculation clearly shows that there is a problem in the
8 Staff-proposed net salvage for distribution, transmission, and general plant.

9 **Steam Production Terminal Net Salvage**

10 **Q. What depreciation policy did the Staff say it was following in this**
11 **proceeding?**

12 A. The Staff repeatedly stated that it was following the Commission's depreciation
13 policies as set forth by the Commission in the Report and Order in the Empire
14 Case No. ER-2004-0570. On page 97 of the Staff Report in this proceeding, Staff
15 states: "This is consistent with the Commission's Depreciation Rate Formula from
16 its Report and Order in The Empire District Electric Company Case No. ER-
17 2004-0570."³

18 In addition, page 99 of that same Staff Report states: "This is consistent with the
19 Commission's policy for net salvage from its *Report and Order* in The Empire

² \$1,930,615 for transmission + \$24,711,614 for distribution + \$425,367 for general plant = \$37,067,596.

³ Page 97, lines 19-20 of "Staff Report Revenue Requirement Cost of Service" dated December 18, 2009 in this proceeding (Case No. ER-2010-0036).

1 District Electric Company's 2004 general electric rate increase case, Case No.
2 ER-2004-0570."⁴

3 **Q. What is the Commission policy regarding terminal net salvage as stated in**
4 **the referenced Empire Order?**

5 A. In that Empire case, the Commission clearly stated the Commission policy is
6 generally not to allow an accrual for future terminal net salvage. The Commission
7 policy regarding terminal net salvage as stated in the Empire Order is:

8 55. The Missouri Public Service Commission has not generally
9 granted net salvage for final retirement of generation plant
10 (terminal net salvage). Fossil fuel plant sites can be rehabilitated
11 and retained in use. Staff's witness Guy Gilbert testified that the
12 expenses associated with the final retirement of such plants are
13 speculative, and thus not known and measurable. There have not
14 been sufficient final retirements of generation plant to make the
15 terminal net salvage of Empire's generation plants known and
16 measurable.⁵ (Emphasis added).

17 Also on page 53 of the Empire Order the Commission stated:

18 Second, with respect to Terminal Net Salvage of Production Plant
19 Accounts, this Commission generally has not allowed the accrual
20 of this item. The reason is that generating plants are rarely retired
21 and any allowance for this item would necessarily be purely
22 speculative. It is true that all depreciation is founded upon
23 estimates, but all estimates are not unduly speculative. Just as
24 utility companies plan rate cases around the projected in-service
25 dates of new plants, so Empire can plan around the retirement of
26 its generating plants so that the Net Salvage expense is incurred in
27 a Test Year. Another alternative is the device of the Accounting
28 Authority Order. As already discussed in connection with the
29 Production Account Service Life issue, there is no evidence that
30 the retirement of any of Empire's plants is imminent and the
31 estimated retirement dates considered in this proceeding are not

⁴ Starting on page 99, line 30 of "Staff Report Revenue Requirement Cost of Service" dated December 18, 2009 in this proceeding (Case No. ER-2010-0036).

⁵ Page 29, *Report and Order* in the Empire Case No. ER-2004-0570, dated March 10, 2005.

persuasive. For these reasons, the Commission will not allow the accrual of any amount for Terminal Net Salvage of Production Plants. (Emphasis added)⁶

Q. In this current AmerenUE case, does AmerenUE propose to recover future terminal net salvage in its proposed depreciation rates?

A. No. AmerenUE recognized that the Commission policy is not to allow the accrual for future terminal (final) net salvage. In its filing, AmerenUE has not included accruals for future terminal net salvage. As stated in the AmerenUE Depreciation Study:

The net salvage estimates for production plant are based on analyses of interim net salvage as it relates to interim retirements. Final or terminal net salvage amounts related to decommissioning and dismantlement of existing electricity generating stations are not included in this study. The decision to exclude terminal net salvage was made by AmerenUE's management based on their desire to exclude this issue from the 2009 base rate case proceeding. In prior cases, the Missouri Public Service Commission has ruled against the prospective recovery of final net salvage related to steam, hydraulic and other production. Final net salvage related to nuclear production is recovered in a separate nuclear decommissioning trust fund in accordance with NRC regulations.⁷ (Emphasis added).

Q. Do the Staff-proposed steam production depreciation rates effectively include accruing for future terminal net salvage?

A. Yes. In response to discovery, Staff acknowledges that under the Staff proposal "the cost to remove a whole plant (dismantlement) is included in depreciation accruals."⁸

⁶ Page 53, *Report and Order* in the Empire Case No. ER-2004-0570, dated March 10, 2005.

⁷ Page II-28, Schedule JFW-E1

⁸ From Staff response to MIEC-Staff-3-2 (a).

Staff response to discovery stated:

All accounts other than Nuclear Plant use whole life with net salvage. The net salvage ratio is applied to the total plant balance and collected through depreciation over the average service life. For steam plant sites, this implies that the cost to remove a whole plant (dismantlement) is included in depreciation accruals.⁹
(Emphasis added)

This Staff response is attached as Schedule WWD-5.

Staff admits that the Staff proposed steam production depreciation rates do include accruals for future terminal net salvage (“the cost to remove a whole plant (dismantlement)”). The Staff treatment of terminal net salvage is contrary to Commission policy.

Q. What did Staff do that resulted in Staff effectively including accruals for future terminal net salvage?

A. Some of the investments in a production plant will retire during an overhaul or at other times prior to the final retirement of the plant. These retirements are called “interim” retirements. Other investments in a production plant will retire as part of the final retirement of the plant. These retirements are called “terminal” retirements or “final” retirements.

Based on past interim retirement net salvage data, Staff determined an interim net salvage percent for each steam production account. Had Staff applied the interim net salvage percent just to the investments that are expected to retire as interim retirements, there would be no problem. However, Staff applied the interim net

⁹ From Staff response to MIEC-Staff-3-2 (a).

1 salvage percent to all investments in the account, including the investments that
2 are expected to retire in the terminal retirement of the plant. Staff acknowledges
3 that “the net salvage ratio is applied to the total plant balance...”¹⁰ For example,
4 for Account 311 Steam Production-Structures and Improvements, Staff
5 determined an interim -45% net salvage,¹¹ which was based in interim net salvage
6 data. However Staff applied that interim -45% net salvage to “the total plant
7 balance.” By applying the interim net salvage percent to all investments in the
8 account, including the investments that are expected to retire in the terminal
9 retirement, the Staff effectively included future terminal net salvage. Misapplying
10 the interim net salvage percent is how the Staff effectively included accruals for
11 future terminal net salvage in the Staff proposed depreciation accruals.

12 In addition, applying the interim net salvage percent to all investments in the
13 account, including the investments that are expected to retire in the terminal
14 retirement, effectively assumes that the terminal net salvage percent will be the
15 same as the interim net salvage percent. There is no valid reason for that
16 assumption, as I will discuss later.

17 **Q. How did AmerenUE perform the similar calculation?**

18 A. Like Staff, AmerenUE determined an interim net salvage percent for each steam
19 production account. However, unlike Staff, AmerenUE applied the interim net
20 salvage percent just to the investments that are expected to retire as interim
21 retirements. AmerenUE did not apply the interim net salvage percent to all

¹⁰ Staff response to MIEC-Staff-3-2(a), attached as Schedule WWD-5.

¹¹ Staff Schedule AWR-5A, updated January 20, 2010.

1 investments in the account.¹² By applying the interim net salvage percent just to
2 the investments that are expected to retire as interim retirements, AmerenUE
3 included accruals for future interim net salvage, but did not include any accruals
4 for future terminal net salvage. This AmerenUE treatment is the proper
5 application of an interim net salvage percent, and is also consistent with the
6 Commission policy pertaining to terminal net salvage.

7 **Q. One reason the Commission gave in the Empire Order for not allowing “the**
8 **accrual of any amount for Terminal Net Salvage of Production Plants”¹³ was**
9 **“there is no evidence that the retirement of any of Empire’s plants is**
10 **imminent and the estimated retirement dates considered in this proceeding**
11 **are not persuasive.”¹⁴ Do these same conditions exist in this current**
12 **AmerenUE case?**

13 A. Yes. The AmerenUE “estimated final retirement dates” for the steam production
14 plants range from 2022 to 2046 and therefore no final retirement is imminent even
15 using AmerenUE’s estimated dates.¹⁵ In addition, Staff did not find the estimated
16 final retirement dates persuasive, referring to them as “uncertain predictions of
17 future retirement date for specific sites, or steam units...”¹⁶

¹² AmerenUE response to MIEC 19.4.

¹³ Page 53, *Report and Order* in the Empire Case No. ER-2004-0570, dated March 10, 2005.

¹⁴ Page 53, *Report and Order* in the Empire Case No. ER-2004-0570, dated March 10, 2005.

¹⁵ Page 18, lines 15-17, Direct Testimony of John F. Wiedmayer.

¹⁶ Page 104, lines 13-15, of “Staff Report Revenue Requirement Cost of Service”, dated December 18, 2009 in this proceeding (Case No. ER-2010-0036).

1 **Q. What is another reason the Commission presented in the Empire Order for**
2 **not allowing the accrual of any amount for Terminal Net Salvage of**
3 **Production Plants?**

4 A. The Commission pointed out the “unduly speculative” nature of future terminal
5 net salvage cost.

6 On page 29 of the Empire Order, the Commission stated:

7 “Staff’s witness Guy Gilbert testified that the expenses associated
8 with the final retirement of such plants are speculative, and thus
9 not known and measurable.”¹⁷

10 On page 53 of the Empire Order, the Commission found that the future terminal
11 net salvage costs were “unduly speculative.” The Commission stated:

12 “Second, with respect to Terminal Net Salvage of Production Plant
13 Accounts, this Commission generally has not allowed the accrual
14 of this item. The reason is that generating plants are rarely retired
15 and any allowance for this item would necessarily be purely
16 speculative. It is true that all depreciation is founded upon
17 estimates, but all estimates are not unduly speculative.”¹⁸

18 **Q. Are the future terminal net salvage costs for which the Staff is proposing to**
19 **charge current customers also “unduly speculative”?**

20 A. Yes. In fact, the Staff used no information pertaining to terminal net salvage in
21 arriving at the net salvage factors Staff is applying for terminal net salvage. The
22 net salvage data the Staff used to determine the Staff-recommended steam
23 production net salvage factors contained historic data only about past interim

¹⁷ Page 29, ¶55, *Report and Order* in the Empire Case No. ER-2004-0570, dated March 10, 2005.

¹⁸ Page 53, *Report and Order* in the Empire Case No. ER-2004-0570, dated March 10, 2005.

1 retirements. The net salvage data the Staff used contained no information about
2 any terminal steam production net salvage.

3 **Q. Can you demonstrate that no information pertaining to steam production**
4 **terminal net salvage was used in arriving at the net salvage factors Staff is**
5 **applying as terminal net salvage factors?**

6 A. Yes. For example, for Account 311 Steam Production-Structures and
7 Improvements, Staff is recommending a -45% net salvage, as shown by Staff
8 Schedule AWR-5A, updated January 20, 2010. In response to discovery, Staff
9 stated that for account 311 the -45% net salvage factor Staff recommends is the
10 “five year average” for the most recent five years of historic data.¹⁹ In response to
11 discovery,²⁰ Staff provided the historic data Staff had used to calculate the -45%
12 net salvage. A copy of that Staff workpaper is attached as Schedule WWD-4.

13 The last page of this Staff workpaper does show that the “Five-Year Average” of
14 the data is -45%, which is the net salvage factor the Staff used. However, that net
15 salvage data is only for interim retirements. It does not contain any data about
16 terminal net salvage. In response to discovery, Staff stated that for the steam
17 production accounts, the data used in the Staff salvage analysis excluded the cost
18 of removal, gross salvage, and retirement amounts for the final retirements of
19 previously retired units.²¹

¹⁹ Staff response to MIEC-Staff-3-2 (a).

²⁰ Staff response to MIEC-Staff-3-1.

²¹ Staff response to MIEC-Staff-3-1 (b), and the clarification provided by Arthur Rice in a February 5, 2010 e-mail

1 The -45% net salvage factor the Staff used for this account is calculated using
2 only interim net salvage data. It does not include any terminal (final) retirement
3 data.

4 There is no valid basis for using the -45% net salvage factor as the terminal net
5 salvage factor; it is not based on any terminal net salvage information.

6 **Q. Assuming that the interim net salvage data shows the interim net salvage is**
7 **-45%, does that mean that the terminal (dismantling) net salvage is -45%?**

8 A. No. “Interim retirements” refer to retirements of components throughout the life
9 of a plant prior to the final retirement. “Terminal retirements” refer to the final
10 retirement of a plant. An interim removal is very different from the terminal
11 dismantling of the plant.

12 For example, in a terminal retirement the building is sometimes dropped to the
13 ground using explosives or other methods. Large machines, sometimes with
14 hydraulic powered shears capable of cutting through steel beams,²² cut the
15 material up and load it into trailers.

16 However, these removal methods are generally not suitable for a removal as part
17 of an interim retirement, because an interim retirement occurs in a production unit
18 that will continue to be in service.

²² Steel may also cut by torches or by other methods.

1 **Q. Is there other information that demonstrates the highly speculative nature of**
2 **production plant terminal retirement (dismantling) costs?**

3 A. Yes. The AmerenUE Cahokia steam production plant retired in 1977.²³ Even
4 though the Cahokia power plant building retired over 30 years ago, it is still
5 standing, as AmerenUE admitted in response to discovery.²⁴ Attached as Schedule
6 WWD-1 is a recent picture of the former Cahokia power plant. As you can see, it
7 is still standing.

8 In addition, the former Cahokia Power Plant site is no longer owned or controlled
9 by AmerenUE or any AmerenUE affiliate,²⁵ so there is no valid reason to believe
10 that AmerenUE will ever have to pay to demolish the former Cahokia Power
11 Plant building.

12 **Q. You previously demonstrated that the Staff-proposed steam production**
13 **depreciation rates included accruals for future terminal net salvage. How**
14 **much does including accruals for terminal net salvage add to the Staff steam**
15 **production accruals?**

16 A. The Staff's inclusion of accruals for future terminal net salvage adds \$5.8 million
17 to the Staff-proposed steam production annual accruals, as shown on Schedule
18 WWD-2.

²³ AmerenUE response to MIEC 16-1.

²⁴ AmerenUE response to MIEC 19-3 (a).

²⁵ AmerenUE response to MIEC 19-3(b).

1 **Q. What is Schedule WWD-2?**

2 A. Schedule WWD-2 recalculates the Staff proposed steam production depreciation
3 rates with the terminal net salvage excluded, in compliance with Commission
4 policy. Keeping everything else the same as in the Staff testimony, the steam
5 production annual accrual is \$68.6 million, which is \$5.8 million less than the
6 \$74.4 million steam production annual accrual as filed in the Staff January 20,
7 2010 revision.

8 For example, for Account 311 Steam Production-Structures and Improvements,
9 Staff is recommending a -45% net salvage, as shown by Staff Schedule AWR-5A,
10 updated January 20, 2010. In my correction on Schedule WWD-2, I apply the
11 -45% interim net salvage factor to the investments in this account that are
12 expected to retire on an interim basis. Of course, I do not apply the -45% interim
13 net salvage factor to the terminal retirement investments.

14 **Q. What do you recommend pertaining to accruals for future terminal net**
15 **salvage for steam production plants?**

16 A. I recommend that the Commission follow the well-established Commission
17 policy. To reiterate, the Staff-proposed depreciation rates include \$5.8 million per
18 year in accruals for future terminal net salvage for steam production plants. This
19 is contrary to Commission policy. The Commission policy is “The Missouri
20 Public Service Commission has not generally granted net salvage for final

1 retirement of generation plant (terminal net salvage).”²⁶ In addition, the
2 Commission stated, “Second, with respect to Terminal Net Salvage of Production
3 Plant Accounts, this Commission generally has not allowed the accrual of this
4 item.”²⁷ In its filing, AmerenUE followed this Commission policy and did not
5 include accruals for future terminal net salvage for steam production plant. The
6 relevant conditions in this proceeding are similar to the conditions in the Empire
7 case. No retirement of any AmerenUE steam production plant is imminent, and
8 the estimated future retirement dates are uncertain. In addition, the Staff did not
9 use any data pertaining to terminal net salvage in arriving at the accrual amount
10 for terminal net salvage that would be collected from customers. A charge that is
11 calculated using no relevant cost information is unduly speculative and cannot
12 reasonably be recovered from customers. I recommend that the Commission
13 follow the well-established Commission policy, which is normally not to allow
14 “the accrual of this item.” Following this Commission policy results in an annual
15 accrual for steam production that is \$5.8 less than the accrual proposed by the
16 Staff, as shown on Schedule WWD-2.²⁸

²⁶ Page 29, *Report and Order* in the Empire Case No. ER-2004-0570, dated March 10, 2005.

²⁷ Page 53, *Report and Order* in the Empire Case No. ER-2004-0570, dated March 10, 2005

²⁸ I have removed the recovery for future terminal net salvage from the Staff proposal. The fact that on this schedule I have used all other parts of the Staff calculations as proposed by Staff does not necessarily imply that I support all other parts of the Staff steam production depreciation proposal.

Net Salvage for Transmission, Distribution and General Plant

Q. What is Schedule AWR-6A?

A. Schedule AWR-6A is a schedule prepared and provided by Staff as part of the corrections that Staff provided on February 3, 2010. I have attached a copy of this Staff Schedule, and marked it as Schedule WWD-3.

Q. What does Staff Schedule AWR-6A show about the Staff-proposed depreciation rates for the distribution plant?

A. Page 4 of this Staff Schedule AWR-6A shows that under the Staff-proposed distribution depreciation rates, AmerenUE would collect several times as much from customers for net salvage as AmerenUE actually spends for net salvage.

Column K shows that in the last 10 years, AmerenUE has actually spent an average of \$11,510,243 per year for distribution net salvage. However, column J shows that under the Staff proposed depreciation rates, AmerenUE would collect \$53,460,587 per year from customers for distribution net salvage. For distribution net salvage AmerenUE would collect over 4 times as much per year as the average annual amount AmerenUE has actually spent for distribution net salvage in recent years.

1 To be clear, the \$53,460,587 is the accrual for net salvage only. Under the Staff
2 proposal, the total annual accrual for distribution plant would be \$132,592,377,²⁹
3 of which \$53,460,587 is for net salvage.

4 Column L of the Staff Schedule AWR-6A is an estimate of the average annual
5 amount AmerenUE will spend in the next 10 years using a 5% per year inflation
6 rate. In the next 10 years, this shows AmerenUE spending an average of
7 \$18,748,973 per year for distribution net salvage. However, as shown in Column
8 J, AmerenUE would be collecting \$53,460,587 per year from customers for
9 distribution net salvage under the Staff-proposed depreciation rates. For
10 distribution plant net salvage, AmerenUE will collect almost 3 times as much per
11 year from customers compared to the average annual amount AmerenUE will
12 spend for distribution net salvage in the near future, assuming a 5% per year
13 increase in net salvage costs.³⁰

14 **Q. Under the Staff-proposed depreciation rates, what is the difference between**
15 **what AmerenUE would be collecting from customers for distribution net**
16 **salvage, and the amount it would be spending on distribution net salvage?**

17 A. Column M of this Staff Schedule AWR-6A shows that AmerenUE would be
18 collecting an average of \$34,711,614 more per year from customers than it would

²⁹ \$79,131,790 for ASL Return of Capital + \$53,460,587 for net salvage = \$132,592,377. Numbers from Staff Schedule AWR-6A.

³⁰ In addition, the \$53,460,587 per year that AmerenUE would collect from customers is based on the investments as of 12-31-2008. It is reasonable to expect that amount would grow as the distribution investment grew, but to be conservative the analysis above does not adjust for the fact that during the next 10 years AmerenUE would very likely be collecting more than \$53,460,587 per year for distribution plant net salvage under the Staff proposed rates.

1 be spending on net salvage in the near future. AmerenUE would be spending an
2 average of \$18,748,973 per year, but would be collecting an average of
3 \$53,460,587 per year for distribution plant net salvage.³¹

4 **Q. Why are the net salvage accruals that Staff would collect from customers so**
5 **much higher than the actual net salvage costs?**

6 A. Under the net salvage treatment that the Staff used, the current customers are
7 charged for future inflation. The number of dollars currently collected from
8 customers is higher than they otherwise would be, to allow for the future lower
9 purchasing power of future dollars. The treatment effectively calculates the cost in
10 lower-valued future dollars, but collects that cost in higher-valued more current
11 dollars.

12 To illustrate this principle, assume that as part of a business deal you have signed
13 a contract that states that in the year 2010 you will pay the other party the amount
14 required to buy a new pickup truck, with the level of equipment specifically stated
15 in the contract. The current price of that truck is \$35,000.

16 The other party states that they will not actually buy the truck until 30 years from
17 now (in 2040), but wants payment today. Because of future inflation it is
18 reasonable to expect the pickup truck will cost \$113,000 when purchased new in
19 the year 2040 (this is at 4% per year inflation).³² Therefore, the other party insists
20 that you pay them \$113,000, in the year 2010. As this illustrates, when the amount

³¹ This is for distribution plant net salvage and is based on a 5% per year increase in net salvage cost.

³² $\$35,000 \times (1 + 0.04)^{30} = \$113,519$.

1 is calculated in future dollars, but is collected in current dollars, there is an
2 overcharge. The overcharge exists because \$113,000 in year-2010 dollars is worth
3 much more than \$113,000 in year-2040 dollars. Calculating the net salvage
4 amount based on what the cost will be in lower-value future dollars (similar to the
5 \$113,000 in this example), but starting to collect that amount in higher-value
6 current dollars is what the Staff's net salvage calculations do.

7 **Q. Can you illustrate how the net salvage treatment used by the Staff**
8 **overcharges current customers?**

9 A. Yes, I will use a hypothetical. Assume an investment goes into service at the start
10 of the year 2010, will live 30 years, and will retire in the year 2040.

11 Since the investment will be in service for 30 years, it is reasonable that the
12 customers in the year 2010 pay $1/30^{\text{th}}$ of the cost of removing this investment.

13 Thus, if the cost of removal for this investment is \$3,000 in year-2010 dollars,
14 then the year-2010 customers could reasonably be expected to pay $1/30^{\text{th}}$ of
15 \$3,000, or \$100. The \$3,000 cost-of removal is stated in year-2010 dollars, and
16 the year-2010 customers will have paid \$100 in year-2010 dollars, so they have
17 paid their $1/30^{\text{th}}$ share.

1 **Q. Applying the net salvage treatment used by the Staff to this example, would**
2 **the year-2010 customers be charged the \$100 as their fair share of net**
3 **salvage?**

4 A. No. That \$100 is not what these year-2010 customers would be charged for net
5 salvage under the method used by the Staff. They would be charged much more
6 than that.

7 Because of future inflation, the cost of removal can reasonable be expected to be
8 \$9,730 in 2040 (this is at a 4% annual inflation rate).³³ As previously stated,
9 because the investment will live 30 years, the year-2010 customers are
10 responsible for 1/30th of the cost-of-removal. The removal costs of \$9,730 in year-
11 2040 dollars divided by 30 is \$324 **in year-2040 dollars.**

12 Under the net salvage treatment used by the Staff, the fact that the year-2010
13 customers are responsible for \$324 **in year-2040 dollars** is used as a reason to
14 collect \$324 from the year-2010 customers **in year-2010 dollars.**

15 Collecting **\$324 in year-2010 dollars** from current customer results in an over
16 three-fold overcharge, because year-2010 dollars are worth much more than year-
17 2040 dollars.

18 In another problem with the Staff treatment, customers in the year 2039 would
19 also pay \$324, but they would pay it in year-2039 dollars. The year 2010

³³ $\$3,000 \cdot (1 + 0.04)^{30} = \$9,730$.

1 customers paying \$324 in year-2010 dollars would effectively pay much more
2 than would later customers.

3 **Q. You have stated that the net salvage treatment used by the Staff effectively**
4 **incorporates future inflation. How is future inflation effectively incorporated**
5 **into the net salvage treatment used by the Staff?**

6 A. The historic net salvage data is assembled in a way that incorporates past inflation
7 into the historic net salvage percents. When the future net salvage percents are set
8 similar to the historic net salvage percents, that effectively assumes future
9 inflation will be the same as past inflation, and effectively incorporates that future
10 inflation into the calculation.

11 **Q. How is past inflation incorporated into the historic net salvage percents?**

12 A. As stated on page 99 of the Staff Report, “Net salvage percentages were
13 developed by dividing the experienced net cost of removal by the original cost of
14 the plant retired...”³⁴ The “original cost” is recorded in the value of dollars when
15 the investment first went into service, which could be decades before the cost of
16 removal occurred. All of the inflation that occurred between the time the
17 investment went into service and the time the cost of removal occurred is
18 incorporated into the historic net salvage percent.

19 For example, assume a \$10,000 investment went into service in 1978. The
20 original cost of \$10,000 is written on the books as \$10,000 in 1978 dollars. After

³⁴ Page 99 of “Staff Report Revenue Requirement Cost of Service”, dated December 18, 2009 in this proceeding (Case No. ER-2010-0036).

1 30 years of service, assume the removal cost in 2008 is \$3,000, which means the
2 resulting net salvage is a negative 30%.³⁵ The original cost is recorded as \$10,000
3 which is in year-1978 dollars. The removal cost is recorded in 2008 dollars. The
4 reason the net salvage percent is negative 30% is because of inflation between
5 1978 and 2008.

6 **Q. The net salvage treatment that the Staff is using has been used for decades.**
7 **Why does it produce such improper results in this case?**

8 A. This method was developed back when net salvage was generally positive.³⁶
9 “Prior to 1960, electric utilities were typically recording positive salvage values
10 (gross salvage exceeded cost of removal).” Positive net salvage means the gross
11 salvage received is more than the cost of removal.

12 With positive net salvage, there was no need to collect money in advance from
13 customers to pay for future cost of removal, because the future gross salvage
14 would cover the future cost of removal. When net salvage was positive there was
15 no prepayment by customers for future removal costs.

16 However, over the decades net salvage has become increasingly negative.
17 Negative net salvage means gross salvage is less than the cost of removal;

³⁵ (\$0 gross salvage-\$3,000 cost of removal in year 2008 dollars)/\$10,000 original-cost in year 1978 dollars= -30%. This assumes \$0 gross salvage.

³⁶ Page 4 of the “An Introduction to Net Salvage of Public Utility Plant” prepared by the Depreciation Committee of the American Gas Association and the Depreciation Account Committee of the Edison Electric Institute states that: “Prior to 1960, electric utilities were typically recording positive salvage values (gross salvage exceeded cost of removal).”

1 therefore, money for future cost of removal will have to be collected from
2 customers.

Negative net salvage results in customers paying in advance for the net cost of removal. The theory on which this old treatment was based was not designed to properly handle prepayments by customers. In this case the net salvage factors are generally negative, and this old treatment is not designed to properly determine prepayments by customers.

8 || **Q. What do you recommend on this issue?**

9 A. Staff Schedule AWR-6A clearly shows that under the Staff-proposed depreciation
10 rates the annual accruals for net salvage for distribution, transmission, and general
11 plant will collect \$37 million more for net salvage per year than AmerenUE is
12 expected to spend per year for net salvage.³⁷ This Staff calculation clearly shows
13 there is a problem in the Staff proposed net salvage for distribution, transmission,
14 and general plant. I recommend that the accruals be modified to reduce or
15 eliminate this problem. Mr. Selecky is presenting a proposal to correct this
16 obvious problem.

17 **Conclusion**

18 || **Q. Can you summarize your recommendation?**

19 A. I recommend that the \$5.8 million in annual accruals that Staff included for future
20 steam production terminal net salvage be removed. The Commission's stated
21 policy is to normally not allow an accrual for future terminal net salvage. In the

³⁷ \$1,930,615 for transmission + \$24,711,614 for distribution + \$425,367 for general plant = \$37,067,596.

1 current case, AmerenUE recognized that this was the Commission policy and did
2 not include terminal net salvage recovery in the AmerenUE proposed depreciation
3 rates. In addition, no data pertaining to terminal net salvage was used in
4 determining the amount of the steam production terminal net salvage accruals
5 included in the Staff proposal.

6 Under the Staff proposed depreciation rates, AmerenUE would collect \$37
7 million more per year for net salvage than AmerenUE is expected to spend for net
8 salvage. This is for the net salvage for distribution, transmission, and general
9 plant. I recommend the accruals be modified to reduce or eliminate this problem.

10 **Q. Does this conclude your rebuttal testimony?**

11 **A. Yes.**