

Exhibit No.:

Issues: Accumulated Deferred Income Taxes, Allocations, Coal-In-Transit, Income Taxes, Infrastructure Inspections, Maintenance Expense, MISO Items, Vegetation Management

Witness: Lisa K. Hanneken

Sponsoring Party: MoPSC Staff

Type of Exhibit: Rebuttal Testimony

Case No.: ER-2014-0258

Date Testimony Prepared: January 16, 2015

MISSOURI PUBLIC SERVICE COMMISSION

REGULATORY REVIEW DIVISION

UTILITY SERVICES - AUDITING

REBUTTAL TESTIMONY

OF

LISA K. HANNEKEN

**UNION ELECTRIC COMPANY,
d/b/a Ameren Missouri**

CASE NO. ER-2014-0258

*Jefferson City, Missouri
January 2015*

**** Denotes Highly Confidential Information ****

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OF

LISA K. HANNEKEN

**UNION ELECTRIC COMPANY,
d/b/a Ameren Missouri**

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1 **REBUTTAL TESTIMONY**

2 **OF**

3 **LISA K. HANNEKEN**

4 **UNION ELECTRIC COMPANY,**
5 **d/b/a Ameren Missouri**

6 **CASE NO. ER-2014-0258**

7 Q. Please state your name and business address.

8 A. Lisa K. Hanneken, 111 N. 7th Street, Suite 105, St. Louis, MO 63101.

9 Q. By whom are you employed and in what capacity?

10 A. I am employed by the Missouri Public Service Commission (“Commission”)
11 as a Utility Regulatory Auditor V in the Auditing Unit of the Utility Services Department,
12 Regulatory Review Division of the Commission Staff (“Staff”).

13 Q. Are you the same Lisa K. Hanneken that was responsible for certain sections
14 of Staff’s Revenue Requirement Cost of Service Report (“Staff Report”) filing in this case for
15 Union Electric Company, d/b/a Ameren Missouri (“Ameren Missouri” or “Company”) on
16 December 5, 2014?

17 A. Yes, I am.

18 **EXECUTIVE SUMMARY**

19 Q. Please provide a brief summary of your rebuttal testimony in this proceeding.

20 A. My rebuttal testimony will address the proposed adjustments to Accumulated
21 Deferred Income Taxes (ADIT), and Income Taxes described by Missouri Industrial Energy
22 Consumers (MIEC) witness Michael L. Brosch in his direct testimony. In addition, I will
23 address the Vegetation Management and Infrastructure Inspections proposals described in

1 Ameren Missouri witness Laura M. Moore's direct testimony. I will be addressing
2 MIEC witness Nicholas L. Phillips' direct testimony regarding the impact of the polar vortex
3 on Midcontinent Independent System Operator, Inc. ("MISO") revenues and costs. As well,
4 I will address Ameren Service Company ("AMS") Allocations, Maintenance Expense and
5 Coal-In-Transit issues.

6 **ACCUMULATED DEFERRED INCOME TAXES (ADIT)**

7 Q. What concerns does MIEC witness Brosch have regarding the proposed ADIT
8 balances included in Ameren Missouri's direct filing?

9 A. In Mr. Brosch's direct testimony, he indicates that while the Company has
10 included certain amounts of its ADIT balances in rate base, he is concerned with the accuracy
11 of the amounts calculated by Ameren Missouri for inclusion, as well as the amounts that were
12 excluded from their calculations.

13 Q. Does Staff agree with Mr. Brosch's concerns as set forth in his direct
14 testimony?

15 A. Yes. Staff has the same concerns regarding these ADIT items. However,
16 some of the proposals that Mr. Brosch describes in his direct testimony are reliant upon
17 true-up data not yet provided by Ameren Missouri. Staff will need to review all necessary
18 true-up data once provided by Ameren Missouri before making its calculations regarding
19 these items.

20 Q. What information is necessary in order for Staff to make accurate true-up
21 adjustments regarding ADIT?

22 A. As stated on page 59 of Staff's Report filed December 5, 2014, Staff intends to
23 re-examine Ameren Missouri's ADIT balances to ensure all items included in those amounts

1 are matched with the other components of the cost of service and reflect the current balances
2 at the true-up cut-off date of December 31, 2014. In addition, recent tax changes regarding
3 the availability of bonus depreciation¹ will affect these calculations. Additionally, some of
4 the ADIT and income tax calculations rely upon items requiring Commission approval in this
5 case, such as depreciation rates and return on equity (ROE) value.

6 Q. Does Staff agree with the ADIT proposals made by Mr. Brosch in his
7 direct testimony?

8 A. Yes. Specifically, Staff agrees in concept with the adjustments set forth in
9 Mr. Brosch's Schedule MLB-5 related to Electric Energy Efficiency; Schedule MLB-6 to
10 account for ADIT in Account 281; and Schedule MLB-7 regarding the Metro East transfer.

11 Q. If Staff agrees in concept with the adjustments set forth in these Schedules,
12 does Staff agree with the adjustment amounts?

13 A. In theory, yes. Staff believes that the ADIT balances should be reflective of
14 the value of the related assets included in Ameren Missouri's rate base calculations.
15 However, since the actual asset and ADIT amounts for the true-up cut-off date of
16 December 31, 2014, have yet to be provided, Staff is not yet able to conduct its own review
17 and audit of these items to determine the appropriate amount of adjustment for these items.
18 Mr. Brosch indicates in his direct testimony on page 4 that his adjustments also may change
19 based on a review of the true-up data.

20 Q. Are these the only ADIT items which Staff will review as part of its
21 true-up audit?

¹ On December 19, 2014, President Obama signed the Tax Increase Prevention Act of 2014 (H.R. 5771) which retroactively reinstates and extends the bonus depreciation allowance under Internal Revenue Code Sec. 168(k) for 2014.

1 A. No, as stated in Staff's Report, Staff will review and audit all ADIT-related
2 items in order to determine the appropriate total amount of ADIT to include in its cost of
3 service at the true-up cut-off of December 31, 2014.

4 Q. Is it possible based on Staff's true-up analysis that the amounts included in
5 Staff's cost of service filed on December 5, 2014, will change?

6 A. Yes. It is certain they will change. At the time of Staff's Report, estimated
7 amounts through December 31, 2014 for ADIT and other items were included in Staff's
8 calculations as placeholders until such time as the actual amounts were known. This was
9 done with the knowledge that the actual amounts would need to be part of Staff's true-up
10 analysis as the data became available.

11 Q. Are there any additional ADIT related adjustments made by Mr. Brosch that
12 Staff is reviewing?

13 A. Yes. Staff is reviewing Mr. Brosch's adjustment which is detailed on
14 his Schedule MLB-8. According to Mr. Brosch's direct testimony on page 26, this
15 adjustment eliminates the entire amount of Net Operating Loss (NOL) deferred tax asset
16 and deferred tax credits that the Company included in its rate base as part of its direct filing
17 in this case.

18 Q. Does Staff agree with Mr. Brosch's adjustment?

19 A. Staff agrees this item should be reviewed to determine the appropriateness
20 of its inclusion in Ameren Missouri's rate base and whether the balances provided by
21 Ameren Missouri have been accurately calculated and updated. One of the factors which
22 must be considered is whether or not Ameren Missouri will have a positive taxable income in
23 calendar year 2014 which would in turn determine whether it is appropriate to include this

1 item in rate base. Whether Ameren Missouri will have a positive taxable income in part
2 depends on the role the new bonus depreciation law will play in Ameren Missouri's NOL
3 calculation. Staff intends to review this item as part of its true-up audit to determine the
4 appropriate amount of the NOL deferred tax asset, if any, to include in its calculation of
5 Ameren Missouri's rate base.

6 **INCOME TAXES**

7 Q. Does Staff agree with MIEC witness Brosch's proposals related to the
8 calculation of the amount to include for Ameren Missouri's income tax expense?

9 A. Yes. Again, in principle, Staff agrees with Mr. Brosch's proposals.

10 Q. Please identify the proposals made by Mr. Brosch in his direct testimony.

11 A. The first of Mr. Brosch's income tax adjustments appears on Schedule MLB-1
12 attached to his direct testimony related to equity issuance costs.

13 Q. Did Staff make a similar adjustment as part of its income tax calculation
14 reflected in its revenue requirement filed on December 5, 2014?

15 A. Yes. Staff made a comparable adjustment to remove the amount of equity
16 issuance costs from its income tax calculations. Staff removal was based on the fact that
17 the amortization expense related to this item is due to expire in June of 2015 and therefore
18 was accounted for as an expiring amortization in the Netting of Regulatory Asset and
19 Liability Amortizations adjustment sponsored by Staff witness John P. Cassidy. Given the
20 amortization expense was not included in Staff's cost of service, it is appropriate to exclude
21 the tax impact of this item as well.

22 Q. Did Staff include a similar income tax adjustment as made by Mr. Brosch in
23 Schedule MLB-2 related to research credits?

1 A. Yes, Staff included an amount related to research credits in its cost of service
2 calculation provided on December 5, 2014; however, the amount varies slightly from
3 Mr. Brosch's estimated true-up amount. Staff filed its adjustment based on the data that had
4 been provided to Staff at that time with the intention of this item being part of Staff's true-up
5 audit; therefore it is likely the amount previously filed by Staff will change due to updated
6 data and analysis regarding this item.

7 Q. Mr. Brosch also made an adjustment on Schedule MLB-3 to account
8 for Investment Tax Credits (ITC); did Staff address this issue in its direct filed cost of
9 service calculations?

10 A. Yes. Staff included an adjustment for this item and intends to review it as part
11 of Staff's true-up analysis. However, this item differs slightly from some of the other true-up
12 items which simply require updated actual amounts from the Company. This analysis will
13 also need to take into account whether Ameren Missouri will be in a position to file its 2014
14 income tax return with positive taxable income. Again, one factor of whether this will occur
15 is reliant upon the impact of inclusion of bonus depreciation in the calculations.

16 Q. Are there other factors to consider in Staff's true-up analysis of ITC?

17 A. Yes. Given that the annual amortization of ITC relies upon the average useful
18 life of the qualifying assets, the calculations require that Staff utilize the applicable book
19 depreciation lives and annual depreciation accrual rates to be ordered by the Commission. At
20 present, in the Direct Testimony of John J. Spanos, the Company is proposing to change the
21 depreciable lives of the assets, as is Staff witness Arthur W. Rice, which would need to be
22 reflected in Staff's ITC calculations. Therefore, while Staff can calculate the appropriate
23 adjustment related to ITC based on these proposed changes, if the Commission approves

1 different depreciation lives and rates, then further changes to Staff's calculations would be
2 necessary subsequent to the Commission's final Report and Order in this case.

3 Q. Mr. Brosch also discusses a calculation for a production deduction which
4 varies from Ameren Missouri's calculation; does Staff agree with this adjustment as shown on
5 Schedule MLB-4?

6 A. Staff is currently reviewing Mr. Brosch's calculations which adjust what
7 appears to be an improperly calculated production deduction presented by Ameren Missouri².
8 Staff will review Mr. Brosch's adjustment, as well as the Company's calculations of the
9 production deduction, as part of its true-up analysis in this case to determine the appropriate
10 amount to include in its cost of service calculation for this item.

11 Q. Are there other factors which may require additional revision to Staff's
12 calculation of the production deduction?

13 A. Yes. As discussed in Mr. Brosch's testimony, the production deduction relies
14 upon a return on investment value in order to be calculated. In its cost of service calculations
15 presented on December 5, 2014, Staff calculated the production deduction using Staff's
16 proposed return on investment (i.e. return on equity). While Staff will utilize its current
17 proposed return on investment in its production deduction true-up calculations, Staff may
18 need to subsequently revise its calculations should the Commission approve an authorized
19 ROE which varies from Staff's proposal.

² Ameren Missouri workpaper LMM-WP-519.

1 **VEGETATION MANAGEMENT AND INFRASTRUCTURE INSPECTIONS**
2 **TRACKERS**

3 Q. Did Ameren Missouri witness Laura M. Moore propose to continue the
4 Company's current Vegetation Management and Infrastructure Inspections Trackers in
5 this case?

6 A. Yes. As discussed on pages 109 and 110 of Staff's Report, the Commission's
7 Report and Order in Case No. ER-2008-0318 established trackers for the expenses related to
8 both Vegetation Management and Infrastructure Inspections. In this case, as shown on
9 page 21 of Ms. Moore's direct testimony, Ameren Missouri proposed to continue the trackers
10 that had previously been ordered by the Commission.

11 Q. Does Staff agree with Ms. Moore that these trackers should continue?

12 A. No. Staff recommended in its Report that these trackers be discontinued after
13 this case. These trackers were put in place to capture the at-the-time unknown cost impact of
14 new Commission rules 4 CSR 240-23.030 (vegetation management) and 4 CSR 240-23.020
15 (infrastructure inspections) designed to compel Ameren Missouri (and other utilities) to
16 increase reliability after their failure to properly maintain their systems³. Since that time,
17 Ameren Missouri has completed the first cycles for both Vegetation Management and
18 Infrastructure Inspections under the rules and while the costs have fluctuated somewhat from
19 year to year, as is common with many costs, overall they have remained stable during the
20 period the trackers have been in place.

21 In Ameren's last rate case, No. ER-2012-0166, the Commission recognized the fact
22 that these trackers would eventually end, as they stated on page 107 of the Report and Order

³ ER-2008-0318 Report and Order, Page 32.

1 in that case, “However, as the Commission has indicated in previous rate cases, it does not
2 intend for this tracker to become permanent.”.

3 Q. Why should the tracker be discontinued as part of this case?

4 A. These trackers were put in place to capture the unknown expense levels
5 associated with the change to vegetation management and infrastructure inspections as a
6 result of the Commission rules. Now, over six years later, there is a complete history of those
7 costs through an entire urban and rural cycle to review and analyze. Based on Staff’s review
8 of this data, there is no indication that a renewal of the tracker is warranted.

9 **AMEREN SERVICE COMPANY ALLOCATIONS**

10 Q. In the Staff Report filed December 5, 2014, Staff indicated that it was awaiting
11 further data regarding allocations Ameren Missouri receives from AMS. Has Staff received
12 some of the data it was seeking?

13 A. Yes. On January 8, 2015, Staff received a response to Staff Data Request
14 No. 446, submitted to Ameren Missouri on November 3, 2014. In this data request Staff
15 sought information on whether allocation studies, other than the one described in Company
16 witness Michael Adams’ testimony, had been performed and the details of such studies. In
17 response to this request Ameren Missouri provided a copy of a study performed by
18 ** _____
19 _____

20 _____ ** Given that this information was not provided until recently, Staff has not yet
21 had adequate time to make a full analysis of the study results for inclusion in this rebuttal
22 filing. However, based on the information provided by Ameren Missouri, the cost of this
23 study ** _____ ** is non-recurring and is of no benefit to Ameren Missouri ratepayers as

1 the study was performed entirely as a result of the ** _____ **;
2 therefore, Staff intends to remove this cost from its cost of service calculations. Staff has
3 subsequently requested that Ameren Missouri provide more details regarding this study as
4 originally requested. Once this documentation is provided, Staff will review the information
5 as well as other information requested by Staff regarding its analysis of AMS allocations.

6 Q. Is Staff still recommending further examination of the AMS allocations
7 through a Cost Allocation Manual (CAM) review as stated on page 61 of Staff's Report?

8 A. Yes. Staff still has concerns, similar to those expressed by MIEC witness
9 Steven C. Carver in his direct testimony in this case, that the information provided does not
10 distinctly depict the allocations and allow for a determination as to whether the costs for the
11 services provided by AMS are being appropriately and fairly distributed to each affiliate,
12 including Ameren Missouri.

13 **MIDCONTINENT INDEPENDENT SYSTEM OPERATOR, INC. (MISO)**

14 Q. On pages 9 and 17 of Mr. Phillips' direct testimony, he explains his
15 adjustments to address the impact of the polar vortex on MISO Day 2 and Ancillary revenues
16 and expenses. Does Staff agree with this adjustment?

17 A. Staff agrees that an adjustment to address the effects of the abnormally severe
18 weather experienced during January 1, 2014, and March 31, 2014, should be considered. As
19 described in Ameren Missouri witness Jaime Haro's direct testimony on page 8, the severe
20 weather anomaly during this time period, commonly referred to as the "Polar Vortex", had an
21 impact on market prices and, therefore, a normalization adjustment should be calculated.

22 Q. Did Mr. Haro calculate an adjustment for the impact of the polar vortex on
23 MISO Day 2 and Ancillary Services?

1 A. No. While Mr. Haro recognized the impact existed for market prices and made
2 adjustments to the historical market prices utilized to model the dispatch of Ameren
3 Missouri's generation⁴, he did not make a similar adjustment to account for the impact on the
4 MISO Day 2 and Ancillary Services.

5 Q. Did Mr. Haro and Mr. Phillips utilize the same methodologies for accounting
6 for the polar vortex?

7 A. No. A review of their direct testimony indicates that their methodologies were
8 different. Mr. Haro's methodology encompassed replacing the market prices for the period of
9 January 1, 2014 – March 31, 2014 with the data from January 1, 2012 – March 31, 2012⁵ in
10 order to normalize these market prices. The methodology utilized by Mr. Phillips removed
11 the amounts for the period of January 1, 2014 – March 31, 2014, then used the average of
12 remaining nine months of the test year (April 2013 – December 2013) to annualize to a full
13 12-month period⁶ for MISO Day 2 and Ancillary Services.

14 Q. Does Staff believe the impact of the polar vortex on MISO Day 2 and
15 Ancillary Services should be considered in its calculations?

16 A. Yes. Once the true-up data is provided by Ameren Missouri, Staff will take
17 into account all relevant factors in its analysis.

18 Q. What methodology does Staff propose should be utilized when accounting for
19 the polar vortex?

20 A. Until a full analysis of the true-up data can be performed, Staff cannot
21 commit to recommending one methodology over another. In addition to the methodologies
22 utilized by Mr. Haro and Mr. Phillips, there are alternative methods available to account for

⁴ Direct Testimony of Jamie Haro at Page 8.

⁵ Direct Testimony of Jaime Haro at Page 8.

⁶ Direct Testimony of Nicholas L. Phillips at Pages 9 and 17; Schedule NLP-1.

1 the polar vortex. Staff will consider all methods available and make a determination based on
2 its analysis which method is most appropriate given the information available to Staff.

3 Q. Does Staff have concerns with the methodologies utilized by Mr. Haro or
4 Mr. Phillips?

5 A. Yes. Staff has some concerns as to whether the methodology utilized for
6 market prices by Mr. Haro, is appropriate for these items. Staff will need to review the
7 historical data to determine if the amounts from January 2012 – March 2012 are an
8 appropriate proxy for the polar vortex time period and should be applied to the MISO Day 2
9 and Ancillary Services items.

10 In addition, Staff has concerns that Mr. Phillips' methodology does not take into the
11 seasonality of the MISO Day 2 and Ancillary Services items. By averaging only nine months
12 of a given year, when seasonality is present, it is possible that you may not capture the correct
13 amount of activity present in the omitted months. Therefore the resulting annualized total
14 may not be representative of the seasonal fluctuations apparent in these items.

15 **MAINTENANCE EXPENSE**

16 Q. Did Staff include any adjustments related to distribution maintenance or power
17 plant maintenance in its calculation of the cost of service filed on December 5, 2014, in
18 this case?

19 A. No. Staff included the test year level of costs for these items in its cost of
20 service calculations pending further data from Ameren Missouri. As discussed on page 111 of
21 Staff's Report, Staff had requested additional data from Ameren Missouri regarding the recent
22 decreases in the expense levels for both distribution and power plant maintenance and was
23 awaiting such data to complete its analysis.

1 Q. Did Staff receive the additional data it was seeking in the data requests it
2 submitted on November 25, 2014, related to distribution maintenance and power plant
3 maintenance expense levels?

4 A. Yes. Staff received a response to its request regarding distribution maintenance
5 on December 31, 2014; a response regarding power plant maintenance was received on
6 January 9, 2015.

7 **Distribution Maintenance**

8 Q. Did the response received by Staff for distribution maintenance alleviate its
9 concerns regarding the decreases in maintenance costs?

10 A. No. In response to part one of Staff's Data Request No. 485 which requested
11 the rationale and details regarding the decrease in expense levels, Ameren Missouri responded
12 that "Ameren Missouri is diligently working to control costs through a variety of efforts while
13 retaining our top tier reliability performance". From this one sentence it is unclear what those
14 cost control measures are and what affect they may have on distribution maintenance as it
15 relates to reliability. In addition, in reply to part two, Staff's request for documentation
16 regarding the new lower levels and its impact on customer outages, the response states that,
17 "The reduction in our distribution maintenance costs are not expected to reduce our top tier
18 reliability performance. In fact, we expect to sustain top tier to top quartile performance in
19 reliability for the foreseeable future." These two sentences do not contain enough data to
20 explain what measures were taken or to make a determination as to the impact of reliability
21 and, therefore, fail to satisfy Staff's concerns regarding the distribution maintenance
22 decreases. Given this, Staff has submitted another data request in order to obtain more details
23 regarding the reductions and their consequences.

1 **Power Plant Maintenance**

2 Q. Did the response Staff received for power plant maintenance alleviate its
3 concerns regarding the decreases in those costs?

4 A. No. While the response contained more detailed information regarding power
5 plant maintenance, it did not fully explain the overall downward trend in expense levels that
6 is present during the past several years. As can be seen at the bottom of the attached chart⁷,
7 Schedule LKH-1, with some minor fluctuations, on a calendar year basis there is a
8 substantial decrease in annual power plant maintenance expense. As shown, in calendar year
9 2010 the power plant maintenance expense level was \$112.3 million, for the 2015 budgeted
10 calendar year it is estimated to be \$75.6m; this represents an overall decrease of 33% in a
11 5-year period.

12 Q. Does Staff believe these cost cutting measures for both distribution and power
13 plant maintenance could lead to reliability issues for customers?

14 A. It is not entirely clear from the limited amount of information Staff currently
15 has what impact these reduced levels of maintenance will have on customers. While Staff
16 believes that any prudent reduction in costs benefits both Ameren Missouri and its
17 ratepayers, Staff's concerns are not alleviated while it is uncertain as to what types of cost
18 cutting measures were taken or their affect on reliability. Staff would like some amount of
19 assurance that these measures will not be responsible for the same type of issues experienced
20 in 2006-2007, as discussed in Staff witness Kofi A. Boateng's rebuttal testimony in this case,
21 which lead to reliability rulemaking by the Commission. Given these concerns, Staff will
22 continue its examination of the decline in maintenance costs.

⁷ Provided in response to Staff Data Request No. 486.

1 **COAL-IN-TRANSIT**

2 Q. In the Staff Report, Staff stated that it did not include coal-in-transit in
3 its calculations of coal inventory for rate base. Why does Staff believe coal-in-transit should
4 be excluded?

5 A. As Staff discussed in the Report, coal-in-transit is coal that, while it has been
6 loaded onto a train and may be in route, has not yet reached a coal generation center and is not
7 usable by Ameren Missouri; therefore it should not be included in the Company's coal
8 inventory at the generation center. Ameren Missouri itself does not recognize coal-in-transit
9 as inventory when planning their operational needs of the generation centers given the fact
10 that the coal is not onsite to be utilized for generation purposes and cannot with absolute
11 certainly be relied upon to be delivered as expected in order to meet the operational needs of
12 the facility.

13 Q. Does this conclude your rebuttal testimony?

14 A. Yes, it does.

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of Union Electric Company d/b/a)
Ameren Missouri's Tariff to Increase Its) Case No. ER-2014-0258
Revenues for Electric Service)

AFFIDAVIT OF LISA K. HANNEKEN

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)


Lisa K. Hanneken, of lawful age, on her oath states: that she has participated in the preparation of the foregoing Rebuttal Testimony in question and answer form, consisting of 15 pages to be presented in the above case; that the answers in the foregoing Rebuttal Testimony were given by her; that she has knowledge of the matters set forth in such answers; and that such matters are true and correct to the best of her knowledge and belief.



Lisa K. Hanneken

Subscribed and sworn to before me this 16th day of January, 2015.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: December 12, 2016
Commission Number: 12412070



Notary Public

Union Electric Company d/b/a Ameren Missouri

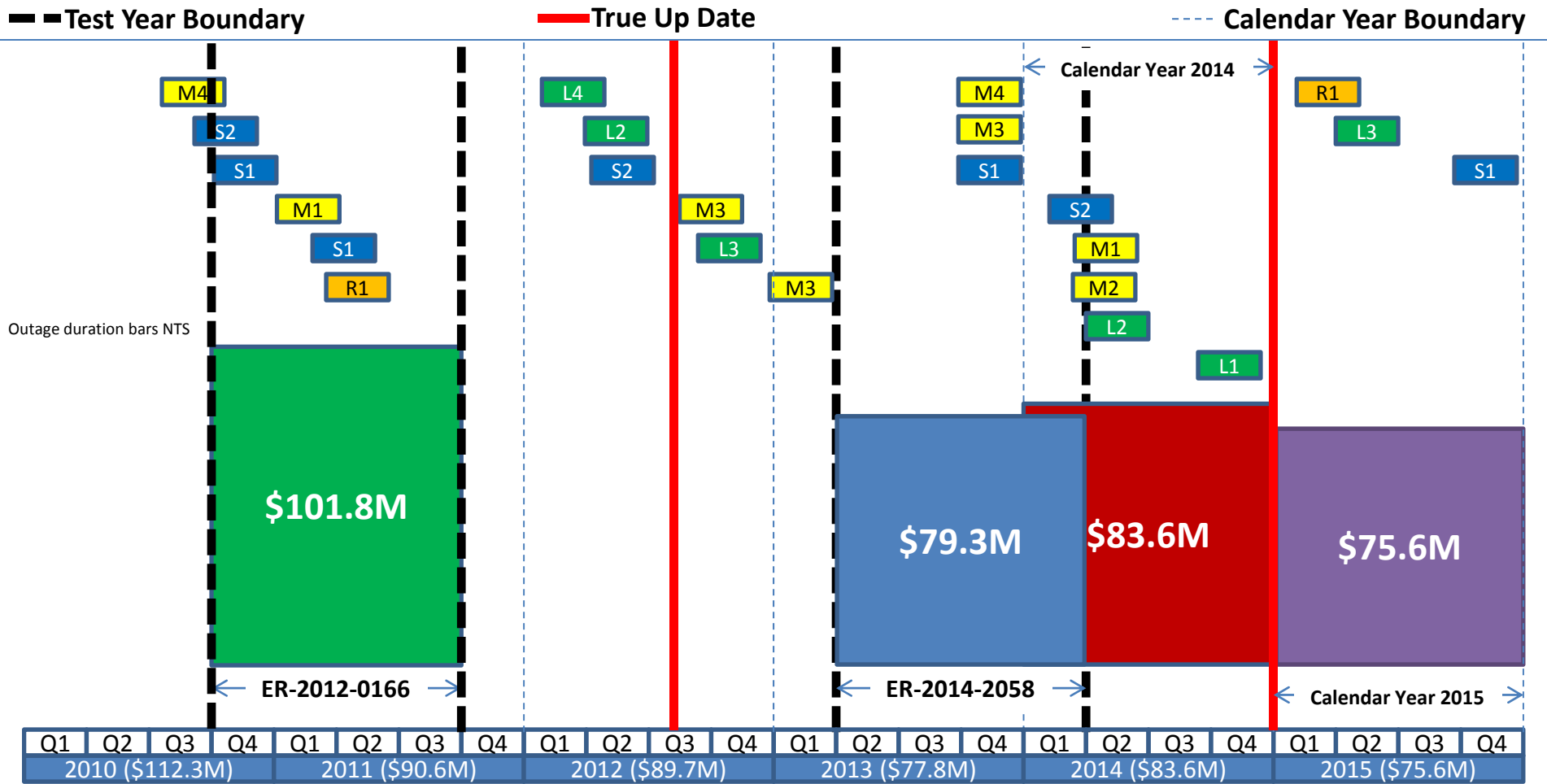
Case No. ER-2014-0258

Major Outages & Maintenance Spends* Relative to DR MPSC 0486 Timeframes

ER-2012-0166 (OCT, 2010 – SEP 2011), ER-2014-2058 (APR 2013 – MAR 2014), Calendar Year 2014, Calendar Year 2015

Beg	End	Generator	Da	M	Reason
08/23/2010 22:00	10/13/2010 23:30	Meramec Unit 4	52	339	Turbine valve maintenance outage
09/04/2010 0:00	11/01/2010 8:08	Sioux Unit 2	59	497	Scrubber, #7 FWH, GR Fan, 50 mo. since last SO
10/22/2010 23:59	11/17/2010 23:59	Sioux Unit 1	27	501	Scrubber, 24 mo. since last SO
01/28/2011 22:59	03/06/2011 11:00	Meramec Unit 1	38	125	Mtc Outage, Precips, CC, 84 mo. since last SO
02/25/2011 18:11	05/12/2011 5:38	Sioux Unit 1	77	495	GR Fans, LP Gen RW, Rotor RW
04/01/2011 22:00	06/07/2011 9:00	Rush Island Unit 1	68	610	LP turbs, Blr mtce, WWV insp, 54 mo.
02/04/2012 0:01	04/13/2012 23:59	Labadie Unit 4	70	617	Rear Arch, btm ash conv, FWHs, CC, MCC
03/21/2012 2:40	06/11/2012 6:01	Labadie Unit 2	83	598	LP turbs, MCCs, FWHs, 107 mo.
04/25/2012 0:00	05/19/2012 6:48	Sioux Unit 2	25	420	Boiler chemical cleaning
09/17/2012 19:00	10/17/2012 11:59	Meramec Unit 3	31	264	To repair boiler blowdown line steam leak.
10/02/2012 23:00	11/21/2012 17:41	Labadie Unit 3	51	610	Inspect steam piping & replace LP Feedwater Heaters
01/07/2013 0:01	03/26/2013 7:17	Meramec Unit 3	79	266	Turbine Valve mtce, Wtr Cannons

Beg	End	Generator	Da	M	Reason
09/13/2013 18:30	01/02/2014 23:59	Meramec Unit 4	112	340	Mtc outage - Gen RW
10/11/2013 0:00	01/01/2014 21:23	Meramec Unit 3	83	264	Broken shroud on last stage of turbine
11/02/2013 0:01	12/05/2013 22:59	Sioux Unit 1	34	420	Boiler chemical cleaning outage
01/25/2014 0:01	05/05/2014 12:27	Sioux Unit 2	101	420	Scrubber mtce, Gen RW, 28 mo.
03/08/2014 0:01	04/23/2014 13:21	Meramec Unit 1	47	126	Inspection of HEP/FAC Piping
03/08/2014 0:01	05/18/2014 23:59	Meramec Unit 2	72	127	Inspection of HEP/FAC Piping
04/02/2014 0:01	06/05/2014 5:00	Labadie Unit 2	65	613	ESP Tie-in Outage
09/05/2014 22:26	12/04/2014 22:59	Labadie Unit 1	91	600	SH, FWH, Blr, CC
02/21/2015 0:01	04/05/2015 23:59	Rush Island Unit 1	44	606	Install 1-3 FWH & Unit Aux Transformer
03/28/2015 0:01	05/24/2015 23:59	Labadie Unit 3	58	580	Boiler mtce, APH Baskets, Burners, ID Fan Rotor, LP
09/12/2015 0:01	12/13/2015 23:59	Sioux Unit 1	93	420	Maintenance Outage, 36 mo.



* Excludes High-Energy Piping Inspection (W0482)