

**PRUDENCE REVIEW OF COSTS
RELATED TO THE
MISSOURI ENERGY EFFICIENCY INVESTMENT ACT
FOR THE ELECTRIC OPERATIONS
OF
UNION ELECTRIC COMPANY d/b/a AMEREN MISSOURI**

July 1, 2014 through December 31, 2015

**MISSOURI PUBLIC SERVICE COMMISSION
STAFF REPORT**

FILE NO. EO-2017-0023

*Jefferson City, Missouri
December 22, 2016*

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

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MEEIA Prudence Review of Costs Report

I. Executive Summary

The Missouri Public Service Commission (“Commission”) Staff (“Staff”) reviewed and analyzed a variety of items in examining whether Union Electric Company d/b/a Ameren Missouri (“Ameren Missouri” or “Company”) prudently incurred costs associated with its demand-side management (“DSM”) programs and demand-side programs investment mechanism (“DSIM”) which were initially approved in File No. EO-2012-0142.

Staff performed its second prudence review of costs for the period of July 1, 2014 through December 31, 2015 (“Review Period”).¹ Based on its review, Staff identified the improper inclusion of non-MEEIA costs discussed in detail in this Staff Prudence Review of Costs Report (“Report”). As a result of its review and analyses as explained herein, Staff determined the imprudent inclusion of certain non-MEEIA costs by Ameren Missouri for the Review Period. As a result, Staff proposes a disallowance of \$125,396 plus interest for non-MEEIA costs associated with Ameren Missouri’s sponsorship of St. Louis Cardinals Baseball team which were billed to Ameren Missouri customers.

Staff also reviewed costs associated with the Company’s MEEIA Cycle 1 DSM programs for the period of January 1, 2016 through October 31, 2016 (“carry-over period”).² The total amount of carry-over period costs reported is \$1,585,137. These costs were reviewed under the same standards as all of the Cycle 1 program costs, Throughput Disincentive - Net Shared Benefits (“TD-NSB”), performance incentive (“PI”) and associated interest costs. As a result of this review Staff proposes two additional disallowances of 1) \$906 plus interest for non-MEEIA costs associated with an employee recognition luncheon which was billed to Ameren Missouri customers, and 2) \$1,878 disallowance to its PI as a result of Ameren Missouri’s failure to include the impact of \$37,134 of Cycle 1³ costs incurred in July – October 2016 upon its Cycle 1 NPI/PE \$/kWh rates requested on November 22, 2016 in File No. ER-2017-0149.⁴

¹ Staff performed its first MEEIA Prudence Review for Ameren Missouri in File No. EO-2015-0029 which included the review period of January 2, 2013 through June 30, 2014.

² October 31, 2016 concludes the carry-over period for Ameren Missouri’s MEEIA Cycle 1.

³ An increase in Cycle 1 program costs results in a decrease in Cycle 1 net benefits and a decrease in PI, since PI for Cycle 1 is equal to 6.19% of Cycle 1 net benefits.

⁴ In its November 2, 2016 *Order Approving Stipulation and Agreement Regarding Performance Incentive Award* the Commission approved a Cycle 1 performance incentive award amount of \$28,246,578.74. This amount of [seems

Because the disallowances of \$125,396 for Cardinal sponsorship and the \$906 for the employee recognition luncheon both reduce the amount of permissible cost recovery through the Rider EEIC, these cost disallowances create upward adjustments to the amounts of TD-NSB and PI owed to Ameren for Cycle 1. Table 1 below shows the downward adjustments and the upward adjustments related to the Cardinal sponsorship and the employee recognition luncheon along with interest through October 2016 and the discounting of costs to 2013 dollars when determining the net benefits for the TD-NSB and PI. Table 1 also contains the basic calculation⁵ of Staff's recommended \$1,878 disallowance due to Ameren Missouri's failure to include \$37,134 of Cycle 1 costs incurred in July – October 2016 upon its Cycle 1 NPI/PE \$/kWh rates requested on November 22, 2016 in File No. ER-2017-0149.

TABLE 1
Staff's Proposed Adjustments Through October 31, 2016

	Cardinal Sponsorship	Employee Recognition Luncheon	Cycle 1 Performance Incentive
Cost	\$ (125,396)	\$ (906)	\$ 37,134
Period of Cost	Sept, Nov 2015 & Feb 2016	January 2016	July - October 2016
Interest Through October 2016	\$ (249)	\$ (1)	\$ (11)
Cost Impact Through October 2016	\$ (125,645)	\$ (907)	\$ 37,123
Cost Impact Discounted to 2013 \$ (1)	\$ (109,846)	\$ (742)	\$ 30,346
TD-NSB Impact @ 26.34%	\$ 28,933	\$ 195	n/a
Performance Incentive Impact @ 6.19%	\$ 6,799	\$ 46	\$ (1,878)
Recommended Disallowance through October 2016	\$ (89,912)	\$ (666)	\$ (1,878)

(1) Only used to calculate the TD-NSB impact and/or the Performance Incentive impact.

(2) Only amounts in red are added together to calculate the recommended disallowance.

there is missing language here] However, paragraph 11 of the Revised Non-Unanimous Stipulation and Agreement Addressing Ameren Missouri's Performance Incentive Award (filed on October 24, 2016 in File No. EO-2012-0142) concerns Program Costs in 2016 for MEEIA Cycle 1 and states: The Signatories agree that the program costs included in the PY 2015 evaluation reports include program costs from MEEIA Cycle 1 that were incurred in the first quarter of 2016. The Signatories further agree that for determination of the Performance Incentive Award, it is proper to include \$124,117.533 of program costs associated with MEEIA Cycle 1 that were incurred in the second quarter of 2016.

⁵ Staff's work papers contain more details on the calculation of interest and discounting of program costs.

As a result of its prudence review of costs, Staff recommends an Ordered Adjustment⁶ (“OA”) of \$(92,456), is the sum of Staff proposed adjusts as expressed in Table 1, as of October 31, 2016, plus interest at such time it is included in Ameren Missouri next filed Rider EEIC adjustment filing.

II. Background

On January 20, 2012, Ameren Missouri filed its application under MEEIA and the Commission MEEIA rules⁷ for approval of its *2013 – 2015 Energy Efficiency Plan* (“Plan” or “Cycle 1 Plan”). On July 5, 2012, Ameren Missouri, Staff, the Office of the Public Counsel, the Missouri Department of Natural Resources, the Natural Resources Defense Council, Sierra Club, Earth Island Institute d/b/a Renew Missouri, the Missouri Industrial Energy Consumers, and Barnes-Jewish Hospital filed a *Unanimous*⁸ *Stipulation and Agreement Resolving Ameren Missouri’s MEEIA Filing* (“2012 Stipulation”).

In its August 1, 2012 *Order Approving Unanimous Stipulation And Agreement Resolving Ameren Missouri’s MEEIA Filing* in Case Nos. EO-2012-0142 and ER-2012-0166,⁹ the Commission authorized Ameren Missouri to implement – beginning January 2, 2013 – the Plan as modified by the 2012 Stipulation including: 1) eleven (11) energy efficiency programs (“MEEIA programs”), 2) DSIM, and 3) a technical resource manual (“TRM”). Also, through its August 1, 2012 order as amended by its December 19, 2012 order,¹⁰ the Commission approved rates to allow Ameren Missouri to bill its customers through a single line item titled “Energy Efficiency Invest Chg” on customers’ bills – beginning January 2, 2013 – for recovery of:

⁶ Union Electric Company MO.P.S.C. Schedule No. 6, Original Sheet No. 91.4: OA = Ordered Adjustment is the amount of any adjustment to the Rider EEIC ordered by the Commission as a result of prudence reviews and/or corrections under this Rider EEIC. Such amounts shall include monthly interest at the Company’s monthly short-term borrowing rate.

⁷ 4 CSR 240-3.163, 4 CSR 240-3.164, 4 CSR 240-20.093 and 4 CSR 240-20.094.

⁸ Laclede Gas Company did not participate in the settlement discussion that led to the comprehensive settlement agreement, but indicated that it does not object and waives its right to object under the Commission’s rules. Kansas City Power & Light Company and KCP&L Greater Missouri Operations Company indicated that they do not oppose the Stipulation. Consequently, the Stipulation is treated as unanimous under the Commission’s Rule 4 CSR 240-2.115(2)(B) and (C).

⁹ Case No. EO-2012-0166 was Ameren Missouri’s 2012 general rate case which included as part of its annual revenue requirement \$49.11 million for estimated annual MEEIA programs’ costs and \$30.45 million for 90% of the estimated annual Company TD-NSB Share.

¹⁰ Commission’s December 19, 2012 *Order Approving Amendment to Stipulation and Agreement* changed the line item title from “Energy Efficiency Investment Chg” to “Energy Efficiency Invest Chg”.

1) estimated annual programs' costs¹¹ and 2) 90% of estimated Company TD-NSB Share. Company TD-NSB Share is defined as 26.34% of the TD-NSB discounted at 6.95% annually. TD-NSB means the 2013 present value of the lifetime avoided costs (i.e., avoided energy, capacity, transmission and distribution, and probable environmental compliance costs) for the Plan using the deemed values for measure level annual kWh energy savings, annual kW demand savings and avoided cost of energy and demand in the TRM, less the 2013 present value of programs' costs as further described in paragraphs 5.b.i. and 6.b. of the 2012 Stipulation.

In its August 1, 2012 order, the Commission also approved a tracker mechanism to allow recovery of actual programs' costs and actual Company TD-NSB Share, with interest, through rate adjustments in future Ameren Missouri general rate cases. The DSIM also allows for recovery of performance incentive award amounts through a monthly amortization¹² as a result of after-the-fact evaluation, measurement and verification ("EM&V") determination of 3-year annual energy savings and 3-year annual net shared benefits and from application of the performance incentive award mechanism described in Appendix B of the 2012 Stipulation, Rider EEIC for Cycle 1 and paragraph 11 of the Second Non-Unanimous Stipulation and Agreement Settling the Program Year 2013 Change Requests.¹³ This prudence review addresses only the impact of a Commission-ordered disallowance of 1) improper Cycle 1 program costs¹⁴ and 2) return of a part of the Cycle 1 performance incentive award amount¹⁵ attributed to the above disallowances. The performance incentive award amount for the *2013 – 2015 Energy Efficiency Plan* is not the subject of this Staff prudence review.¹⁶

¹¹ Programs' costs means program expenditures, including such items as program design, administration, delivery, end-use measures and incentive payments, evaluation, measurement and verification, market potential studies and work on the TRM.

¹² From page 4 of Addendum A: The monthly amortization shall be determined by dividing the Performance Incentive Award by the number of available billing months between the first billing month of the first EEIR filing after the determination of the Performance Incentive Award and 24 calendar months following the end of the annual period in which the Performance Incentive Award is determined.

¹³ The Second Non-Unanimous Stipulation and Agreement Settling the Program Year 2013 Change Requests was filed on February 11, 2015 in File No. EO-2012-0142 and was approved by the Commission on February 25, 2015.

¹⁴ Disallowance of program costs and interest related to the Cardinal sponsorship and an employee recognition luncheon (which lowers program costs) will cause an increase to the Cycle 1 performance incentive award amount.

¹⁵ Disallowance due to Ameren Missouri's imprudent failure to include the impact of \$37,134 of Cycle 1 carry-over costs incurred in July – October 2016 upon its Cycle 1 NPI/PE \$/kWh rates requested on November 22, 2016 in File No. ER-2017-0149.

¹⁶ On November 2, 2016, the Commission issued its *Order Approving Stipulation and Agreement Regarding Performance Incentive Award* in File No. EO-2012-0142, which approved Ameren Missouri's MEEIA Cycle 1 performance incentive award of \$28,246,578.74.

On January 3, 2014, the Commission approved Ameren Missouri's Rider Energy Efficiency Investment Charge ("Rider EEIC") in Case No. EO-2014-0075, thereby, changing the Company's DSIM from a tracker to a rider, which provides for periodic rate adjustments between general rate cases.¹⁷ Rider EEIC is included as Addendum A to this Report.

Commission Rule 4 CSR 240-20.093(10) requires that the Staff conduct prudence reviews of an electric utility's costs for its DSIM no less frequently than every twenty-four (24) months. This Report documents Staff's second review of the prudence of Ameren Missouri's MEEIA programs' costs, Company TD-NSB Share and interest.¹⁸ As a part of its complete review of Company TD-NSB Share, Staff must also review and verify the deemed annual energy (kWh) savings and deemed annual demand (kW) savings, avoided costs resulting from installed energy efficiency measures, and the monthly calculations of annual net shared benefits.

Commission Rules 4 CSR 240-20.093(9) and 4 CSR 240-2.163(6) require that Ameren Missouri file quarterly a Surveillance Monitoring Report. Addendum B to this Report is Page 6 of Ameren Missouri's highly confidential Surveillance Monitoring Report including status of the MEEIA programs and DSIM costs for the quarter ended, 12-months ended and cumulative total ended December 31, 2015. Table 2 identifies the line items and amounts from Addendum B which are the subject of Staff's review.

¹⁷ Paragraph 7 of the 2012 Stipulation includes provision for conversion of the DSIM from a tracker to a rider.

¹⁸ Staff's first prudence review is in File No. EO-2015-0029.

Table 2

Cumulative Totals for July 1, 2014 through December 31, 2015		
Category	Descriptor	Total for Prudence Review Period
Total Programs' Costs (\$)	Billed	\$ 74,038,468
Total Programs' Costs (\$)	Actual	\$ 79,103,535
Total Programs' Costs (\$)	Vanriance	\$ (5,065,067)
Total Programs' Costs (\$)	Interest	\$ (75,181)
Energy Savings (MWh)	Actual	649,509
Demand Savings (MW)	Actual	89.87
Net Shared Benefits (\$)	Actual	\$ 388,032,482
90% Company TD-NSB Share (\$)	Billed	\$ 87,320,049
Company TD-NSB Share (\$) (1)	Actual	\$ 102,207,757
Company TD-NSB Share (\$)	Variance	\$ (14,887,708)
Company TD-NSB Share (\$)	Interest	\$ 121,843

(1) Actual Company TD-NSB Share is equal to 26.34% of Actual Net Shared Benefits.

In evaluating prudence, Staff reviews whether a reasonable person making the same decision would find both the information the decision-maker relied on and the process the decision-maker employed to be reasonable based on the circumstances at the time the decision was made, *i.e.*, without the benefit of hindsight. The decision actually made is disregarded; instead, the review evaluates the reasonableness of the information the decision-maker relied on and the decision-making process the decision-maker employed. If either the information relied upon or the decision-making process employed was imprudent, then Staff examines whether the imprudent decision caused any harm to ratepayers. Only if an imprudent decision resulted in harm to ratepayers, will Staff recommend a refund.

III. MEEIA Programs and DSIM

A. MEEIA Programs

Ameren Missouri used various request for proposal (“RFP”) processes to procure by contract: 1) implementers for its individual MEEIA programs, 2) EM&V contractors for its

residential and business MEEIA programs, 3) demand-side management cost effectiveness software (DSMore[®] software by Integral Analytics), and 4) comprehensive demand-side programs' data management system (Applied Energy Group's VisionDSM[®] Tracker and Reporting System ("VisionDSM[®]")).

Table 3 below summarizes for each of the eleven (11) MEEIA programs the Commission-approved cumulative annual energy and demand savings targets,¹⁹ program implementers and program EM&V contractors:

Table 3

2013 - 2015 Energy Efficiency Plan				
MEEIA Programs	Cumulative Annual Energy Savings Targets (kWh) (1)	Cumulative Annual Demand Savings Targets (kW)	Program Implementers	Program EM&V Contractors
Res. Lighting	280,465,773	8,433	APT	Cadmus Group
Res. Efficient Products	48,367,466	7,663	APT	Cadmus Group
Res. HVAC	117,247,150	73,409	ICF	Cadmus Group
Res. Refrigerator Recycling	37,577,196	5,234	ARCA	Cadmus Group
Res. Home Energy Products	3,210,597	1,053	Honeywell	Cadmus Group
Res. Energy Star New Homes	4,934,505	993	ICF	Cadmus Group
Res. Low Income	13,666,410	2,359	Honeywell	Cadmus Group
Bus. Standard	100,268,887	18,918	Lockheed Martin	ADM
Bus. Custom	167,619,239	46,935	Lockheed Martin	ADM
Bus. Retro Commissioning	7,559,721	1,655	Lockheed Martin	ADM
Bus. New Construction	12,185,332	3,780	Lockheed Martin	ADM
Total	793,102,276	170,432		

(1) The cumulative 793,100 MWh net (net-to-gross ratios are equal to 1.0) energy savings is based upon the 1,434,353 MWh annual energy sales for the opt-out customers specified in Table 2.11 of the 2013 - 2015 Energy Efficiency Plan. Paragraph 5.b.ii. of the 2012 Stipulation specifies that the targeted net energy savings shall be adjusted annually for full program year impacts on targeted net energy savings caused by actual opt-out.

The individual program implementers record individual items of programs' costs and individual energy efficiency measures in real time (daily) into the VisionDSM[®] system as they incur programs' costs and deliver programs' services to customers and retail partners. Monthly,

¹⁹ See Item No. 316 in File No. EO-2012-0142 for Ameren Missouri's February 22, 2016 Notice of Opt-Out Adjustment which adjusts the Cycle 1 cumulative annual energy savings target to 821,303 MWh as a result of actual business class opt-outs being 13.65% and not the 20% specified in Table 2.11 of the Cycle 1 Plan.

Ameren Missouri downloads files from VisionDSM[®] model for input to the DSMore[®] model in order to calculate programs' deemed benefits and then to calculate programs' net benefits²⁰ in compliance with Rider EEIC and for Ameren Missouri's Annual Report required by 4 CSR 240-20.093(8) and 4 CSR 240-3.163(5)(A).

Table 4 below is a summary of each MEEIA program's deemed cumulative annual energy savings, deemed cumulative annual demand savings, benefits, costs and net benefits for the Review Period. Also, included in Table 4 are portfolio EM&V costs and portfolio overhead costs including those costs related to general, education, marketing, potential study, data tracking, and communication.

Table 4

Cumulative Totals for July 1, 2014 through December 31, 2015						
MEEIA Programs	Cumulative Annual Energy Savings (MWh)	Cumulative Annual Demand Savings (MW)	Programs' Benefits (2013 \$)	Programs' Costs (Nominal \$)	Programs' Costs (2013 \$)	Programs' Net Benefits (2013 \$)
Res. Lighting	140,816	5.6	\$ 72,139,461	\$ 9,621,176	\$ 8,995,957	\$ 63,143,504
Res. Efficient Products	18,132	2.04	\$ 9,756,382	\$ 2,807,971	\$ 2,625,498	\$ 7,130,883
Res. HVAC	84,241	28.40	\$ 81,425,441	\$ 15,676,071	\$ 14,657,383	\$ 66,768,058
Res. Refrigerator Recycling	14,725	2.66	\$ 7,932,316	\$ 2,261,301	\$ 2,114,354	\$ 5,817,962
Res. Home Energy Performance	1,037	0.13	\$ 720,375	\$ 421,100	\$ 393,736	\$ 326,640
Res. Energy Star New Homes	446	0.05	\$ 443,161	\$ 135,102	\$ 126,322	\$ 316,838
Res. Low Income	8,349	1.21	\$ 5,875,322	\$ 5,131,226	\$ 4,797,780	\$ 1,077,542
Bus. Standard	74,525	11.67	\$ 53,428,819	\$ 8,243,246	\$ 7,707,570	\$ 45,721,248
Bus. Custom	217,124	29.95	\$ 163,596,575	\$ 19,717,164	\$ 18,435,871	\$ 145,160,704
Bus. Retro Commissioning	51,629	1.64	\$ 29,054,353	\$ 5,524,676	\$ 5,165,663	\$ 23,888,691
Bus. New Construction	38,486	6.53	\$ 34,101,285	\$ 3,246,613	\$ 3,035,636	\$ 31,065,649
EM&V Costs	0	0	\$ -	\$ 2,119,488	\$ 1,981,756	\$ (1,981,756)
Portfolio Overhead Costs	0	0	\$ -	\$ 4,198,402	\$ 3,925,575	\$ (3,925,575)
Total	649,509	89.88	\$ 458,473,488	\$ 79,103,535	\$ 73,963,100	\$ 384,510,388

B. DSIM BACKGROUND/PROCESS

Ameren Missouri's DSIM was initially approved by the Commission in its August 1, 2012 *Order Approving Unanimous Stipulation And Agreement Resolving Ameren Missouri's MEEIA Filing* in Case Nos. EO-2012-0142 and ER-2012-0166. Ameren Missouri's initial DSIM was a tracker mechanism as described in paragraph 5 DSIM and paragraph 6 Final Recovery /True-up of the 2012 Stipulation.

²⁰ Net benefits means the present value of the lifetime avoided costs (i.e., avoided energy, capacity, transmission and distribution, and probable environmental compliance costs) for the 2013 – 2015 *Energy Efficiency Plan* using the deemed annual energy and demand savings and measure lives in the TRM and DSMore, less the 2013 present value of programs' costs as further described in paragraphs 5.b.i. and 6.b. of the 2012 Stipulation.

The DSIM tracker allowed Ameren Missouri to begin recovering - on January 2, 2013 - the following costs through its “Energy Efficiency Invest Chg”:1) \$49.11 million for estimated annual MEEIA programs’ costs; and, 2) \$30.45 million for 90% of the estimated annual Company TD-NSB Share.

The DSIM tracker allowed recovery of actual approved program costs and actual Company TD-NSB Share, with interest, through rate adjustments in Ameren Missouri’s subsequent general rate cases. The DSIM tracker also allows recovery of a performance incentive award amount through a monthly amortization as a result of EM&V determination of 3-year cumulative annual energy savings and 3-year cumulative annual net shared benefits and from application of the performance award mechanism described in Appendix B of the 2012 Stipulation, Rider EEIC for Cycle 1 and paragraph 11 of the Second Non-Unanimous Stipulation and Agreement Settling the Program Year 2013 Change Requests.²¹

On January 3, 2014, the Commission approved Ameren Missouri’s Rider EEIC in Case No. EO-2014-0075 and Tariff Tracking No YE-2014-0223, thereby, changing the Company’s DSIM from a tracker to a rider, which provides for periodic rate adjustments between general rate cases. Rider EEIC is included as Addendum A.

On November 21, 2014, Ameren Missouri filed, in Case No. ER-2015-0132 and Tariff Tracking No. YE-2015-0210, testimony, work papers and its proposed 1st Revised Sheet No. 90.5 to adjust Rider EEIC rates effective with its February 2015 billing month, beginning January 27, 2015, to reflect an increase in annual revenue requirements of \$45.4 million (from \$80.9 million to \$126.3 million). The Commission issued its order in Case No. ER-2015-0132 regarding 1st Revised Sheet No. 90.5 on January 14, 2015 approving Ameren Missouri’s EEIR for each rate class.

On March 27, 2015, Ameren Missouri filed, in Case No. ER-2015-0235 and Tariff Tracking No. JE-2015-0290, testimony, work papers and its proposed 2nd Revised Sheet No. 90.5 to adjust Rider EEIC rates effective with its June 2015 billing month, beginning May 27, 2015, will cost a typical residential customer an additional \$0.17 per month on average, while the typical qualifying low-income customer will save approximately \$7.00 per month on average, depending on monthly usage. The Commission issued its order in Case No. ER-2015-0235

²¹ The Second Non-Unanimous Stipulation and Agreement Settling the Program Year 2013 Change Requests was filed on February 11, 2015 in File No. EO-2012-0142 and was approved by the Commission on February 25, 2015.

regarding 2nd Revised Sheet No. 90.5 on May 6, 2015 approving Ameren Missouri's EEIR for each rate class.

On November 25, 2015, Ameren Missouri filed, in Case No. ER-2016-0131 and Tariff Tracking No. YE-2016-0130, testimony, work papers and its proposed 3rd Revised Sheet No. 90.5 to adjust Rider EEIC rates effective with its February 2016 billing month, beginning January 27, 2016, to reflect a decrease in annual revenue requirements of \$123 million which results in an annual decrease of 6.6% typical residential customers' bill. Ameren Missouri filed this tariff sheet because its MEEIA programs expired on December 31, 2015, and Ameren Missouri did not have a Commission-approved Cycle 2 Plan at that time. The Commission issued its order in Case No. ER-2016-0131 regarding 3rd Revised Sheet No. 90.5 on January 6, 2016 approving Ameren Missouri's EEIR for each rate class.

On March 24, 2016, Ameren Missouri filed, in Case No. ER-2016-0242 and Tariff Tracking No. YE-2016-0244, testimony, work papers and its proposed 1st Revised Sheet No. 91.11 to adjust Rider EEIC rates effective with its July 2016 billing month, beginning May 25, 2016, to reflect an increase in annual revenue requirements of \$37.4 million or 1.2%.

On May 3, 2016, the Commission issued its order in Case No. ER-2016-0242 regarding 1st Revised Sheet No. 91.11 approving Ameren Missouri's EEIR for each rate class. Also as a result of this order, Cycle 1 costs will be recovered going forward under a new tariff sheet, Ameren Missouri's 1st Revised Sheet No. 91.1 (cancelling Ameren Missouri's Original Tariff Sheet No. 91.1). If the Commission were to order any disallowance of Rider EEIC costs as a result of prudence reviews and/or corrections under the Rider EEIC, such disallowance would be included as an OA (ordered adjustment) in a future EEIR rate adjustment filing for the Rider EEIC.

IV. Prudence Review Process

On July 25, 2016 Staff initiated its second prudence review of costs of Ameren Missouri's DSIM in compliance with 4 CSR 240-20.093(10) as authorized under Sections 393.1075. 3. and 393.1075.1, RSMo, Supp. 2013. This prudence review was performed by members of the Energy Resources Department of the Commission Staff Division. Staff obtained and analyzed a variety of documents, records, reports and work papers, emails and phone calls with Ameren Missouri's Plan administrators to complete its prudence review of costs for the Rider EEIC for the Review Period and carry-over period costs associated with

Cycle 1 DSM programs through October 31, 2016. In compliance with 4 CSR 240-20.093(10), this prudence review was completed within one-hundred-fifty (150) days of its initiation.

V. Prudence Review Standard

In *State ex rel. Associated Natural Gas Co. v. Public Service Com'n of State of Mo.*, the Western District Court of Appeals stated the Commission defined its prudence standard as follows:

[A] utility's costs are presumed to be prudently incurred.... However, the presumption does not survive “a showing of inefficiency or improvidence... [W]here some other participant in the proceeding creates a serious doubt as to the prudence of expenditure, then the applicant has the burden of dispelling these doubts and proving the questioned expenditure to have been prudent.

In the same case, the PSC noted that this test of prudence should not be based upon hindsight, but upon a reasonableness standard: [T]he company's conduct should be judged by asking whether the conduct was reasonable at the time, under all the circumstances, considering that the company had to solve its problem prospectively rather than in reliance on hindsight. In effect, our responsibility is to determine how reasonable people would have performed the tasks that confronted the company.

954 S.W.2d 520, 528-29 (Mo. App. W.D., 1997) (citations omitted).

In reversing the Commission in that case, the Court did not criticize the Commission's definition of prudence, but held, in part, that to disallow a utility's recovery of costs from its ratepayers based on imprudence; the Commission must determine the detrimental impact of that imprudence on the utility's ratepayers. *Id.* at 529-30. This is the prudence standard Staff has followed in this review. Staff reviewed for prudence the areas identified and discussed below for Ameren Missouri's DSIM.

VI. Billed Costs

A. Recovery of Program Costs and 90% of Company TD-NSB Share

1. Description

For the Review Period, Ameren Missouri billed customers through a separate line item on customers' bills titled “Energy Efficiency Invest Chg” to recover estimated energy efficiency programs' costs and 90% of estimated Company TD-NSB Share. The “Energy Efficiency Invest Chg” is based on the customer's monthly consumption and the applicable energy efficiency

investment rates approved by the Commission in Case Nos. ER-2012-0166 and EO-2014-0075.²² During the Review Period of June 1, 2014 through December 31, 2015, Ameren Missouri billed customers \$74,038,468 to recover its estimated energy efficiency programs' costs. For the same period Ameren Missouri actually spent \$79,103,535 on its energy efficiency programs. Thus, Ameren Missouri under-collected \$5,065,067 from its customers for programs' costs during the Review Period.

During the same period, Ameren Missouri billed customers \$87,320,049 for 90% of estimated Company TD-NSB Share. The actual Company TD-NSB Share for the period was \$102,207,757.²³ Thus, Ameren Missouri under-collected \$14,887,708 from its customers for Company TD-NSB Share during the Review Period. The monthly amounts that are either over- or under-collected from customers are tracked in a regulatory asset account, along with monthly interest, until Ameren Missouri files for EEIR adjustments under its Rider EEIC and new rates are approved by the Commission.²⁴

Staff obtained through its Data Request No. 0013 sample bills and billing data from each customer class²⁵ for the "Energy Efficiency Invest Charge" bill line item to determine the correctness of these charges.

2. Summary of Cost Implications

If Ameren Missouri was imprudent in its decisions regarding its determination of the "Energy Efficiency Invest Charge" for customers' bills, ratepayer harm could result in an increase in billed amounts.

3. Conclusion

Staff found no indication that Ameren Missouri has acted imprudently regarding the determination of the "Energy Efficiency Invest Charge" for customers' bills.

²² The energy efficiency investment rates on Original Sheet No. 90.5, approved in Case No. EO-2014-0075, are based upon anticipated costs as well as reconciliations of historical costs associated with Ameren Missouri's approved demand-side programs.

²³ Ameren Missouri was required to make an adjustment to its TD-NSB calculation as a result of File No. EO-2015-0029 in the amount of \$9,206. The sharing percentage truncation adjustment on the Company TD-NSB Share Disincentive was made in the Company's general ledger in November 2014.

²⁴ Ameren Missouri filed, in Case No. ER-2015-0132 and Tariff Tracking No. YE-2015-0210, ER-2015-0235 and Tariff Tracking No. JE-2015-0290, ER-2016-0131 and Tariff Tracking No. YE-2016-0130, and ER-2016-0242 and Tariff Tracking No. YE-2016-0244.

²⁵ Rider EEIC is applicable to all kilowatt-hours (kWh) of energy supplied to customers served by Ameren Missouri under Service Classification Nos. 1(M), 2(M), 3(M), 4(M), 11(M) and 12(M), excluding kWh of energy supplied to customers approved to "opt-out" of participation in the MEEIA programs under 4 CSR 240-20.094(6).

4. Documents Reviewed

- a. Ameren Missouri's 2013 - 2015 *Energy Efficiency Plan*;
- b. Approved MEEIA Energy Efficiency and Demand Side Management Programs Tariff Sheets;
- c. Rider EEIC; and
- d. Staff Data Requests; 0001, 0002, 0002.1, 0004, and 0016.

Staff Expert: Dana Eaves

VII. Actual Program Costs

A. Total Program Costs

1. Description

Ameren Missouri's programs' costs include incentive payments, program administration, general, education, marketing and communication, market potential study, data tracking, and EM&V programs' costs.

Staff reviewed all actual program costs for the Review Period to insure only prudently incurred costs are being recovered through the Rider EEIC. Staff reviewed and analyzed for prudence Ameren Missouri's adherence to contractual obligations, resolutions of problems, adequacy of controls, and compliance with approved tariff sheets. Ameren Missouri provided Staff accounting records for all programs' costs it incurred during the Review Period. Staff categorized these costs by program and segregated them between incentive payments and program administrative costs.

The results of Staff's categorizing of programs' costs are provided in Table 5.

**** THIS TABLE HAS BEEN DEEMED**
CONFIDENTIAL IN ITS ENTIRETY **

Ameren Missouri incurs administrative costs that are directly related to the implementation of its approved energy efficiency programs. Staff uses the term administrative to mean all costs other than incentives.²⁶ Staff reviewed each administrative category of cost to determine the reasonableness of each individual item of cost and if the costs being sought for

²⁶ Incentives are program costs for direct and indirect incentive payments to encourage customer and/or retail partner participation in programs and the costs of measures which are provided at no cost as a part of a program.

recovery were directly related to energy efficiency programs and recoverable from customers through the “Energy Efficiency Invest Charge”.

Ameren Missouri provides incentive payments to its customers as part of its approved energy efficiency programs. Incentive payments are an important instrument for encouraging investment in energy efficient technologies and products by lowering higher upfront costs for energy efficiency measures compared to the cost of standard measures. Incentive payments can also complement other efficiency policies such as appliance standards and energy codes to help overcome market barriers for cost-effective technologies.

Ameren Missouri has also developed internal controls that allow for review and approval at various stages of the accounting of costs for its energy efficiency programs. During the first MEEIA Prudence review of Ameren Missouri MEEIA costs, in-person meetings were held May 14 and 15, 2014, between Staff and Ameren Missouri personnel at Ameren’s St. Louis office, a presentation was given to Staff detailing accounting controls developed specifically for its energy efficiency programs. Ameren Missouri made available each of its program managers for Staff questions and each program manager provided detailed actions they take to confirm the accuracy of the information provided by each of its implementers and business partners. Staff has confirmed that these internal controls were in effect for the Review Period.

2. Summary of Cost Implications

If Ameren Missouri was imprudent in its decisions relating to the administration and implementation of the Residential and Business Energy Efficiency Programs, ratepayer harm could result in an increase in future EEIRs.

3. Conclusion

Staff found Ameren Missouri did act imprudently by including inappropriate costs associated with its Energy Efficiency Programs and has recommended adjustments as detailed in sections B and C of this report.

4. Documents Reviewed

- a. Ameren Missouri’s *2013 – 2015 Energy Efficiency Plan*,
- b. Approved MEEIA Energy Efficiency and Demand Side Management Programs Tariff Sheets;
- c. Staff Data Requests; 0001, 0002, 0002.1, 0015 and 0016;
- d. Workpapers and Testimony in Ameren Missouri Case No. ER-2012-0166; and

- e. May 14 and 15, 2014 in-person meetings and interviews with Ameren Missouri.

Staff Expert: Dana Eaves

B. Carry-Over Program Costs

1. Description

Ameren Missouri's 2013 - 2015 Energy Efficiency Plan officially ended on December 31, 2015, however with any program of this nature a period of time is needed to finalize: 1) all energy efficiency projects that may have been scheduled or started but not completed by the official end of Ameren Missouri's Plan, and 2) EM&V.

Staff reviewed the carry-over costs as reported by the Company in response to Staff's Data Request No. 0016 for prudence and have summarized the results in Table 6. The majority of costs reviewed are related to business energy efficiency programs for specific projects that had been approved by Ameren Missouri but not yet completed by December 31, 2015. Ameren Missouri also made adjustments after the ending of the Plan which reflects the over-accrual of certain costs. These costs and adjustments are not reflected in Ameren Missouri's December 31, 2015 Page 6 of Ameren Missouri's highly confidential Surveillance Monitoring Report and not included in Table 4 of this Report. The reconciliations of these costs will be handled in a subsequent MEEIA EEIC Rider filing as provided for in Ameren Missouri's 2nd Revised Sheet No. 90.1.

2) Reconciliations, with interest, to true-up for differences between the revenues billed under this Rider EEIC and total actual monthly amounts for: i) Program Costs incurred, ii) Ameren Missouri's TD-NSB Share incurred, and iii) amortization of any Performance Incentive Award ordered by the Missouri Public Service Commission (Commission) and 3) any Ordered Adjustments. Charges under this Rider EEIC shall continue after the anticipated December 31, 2015 end of MEEIA Cycle 1 Plan until such time as the charges described in items 1), 2) and 3) in the immediately preceding sentence have been billed. Charges arising from the MEEIA Cycle 1 Plan that are the subject of this Rider EEIC shall be reflected in one "Energy Efficiency Invest Chg" on customers' bills in combination with any charges arising from a rider that is applicable to post-MEEIA Cycle 1 Plan demand-side management programs approved under the Missouri Energy Efficiency Investment Act.

**** THIS TABLE HAS BEEN DEEMED**
CONFIDENTIAL IN ITS ENTIRETY **

After Staffs review of the carry-over costs, Staff is proposing a disallowance of \$906 related to costs incurred by Ameren Missouri for a recognition luncheon held at the Scott Trade Center for an Ameren Missouri employee for outstanding work performed for MEEIA Cycle 1. It is Staff's position that it is inappropriate to seek recovery of a performance

incentive to employees. Staff also proposes a disallowance of \$14,849 related to St. Cardinals Sponsorship as further discussed in Section VII C of this Report.

2. Summary of Cost Implications

If Ameren Missouri was imprudent in its decisions relating to the determination of the “Energy Efficiency Invest Chg” for customers’ bills, ratepayer harm could result in an increase in billed amounts.

3. Conclusion

Staff determined that Ameren Missouri acted imprudently by including inappropriate advertising costs which occurred after the DSM programs ended on December 31, 2015. Staff is proposing a disallowance of \$906 along with the associated adjustments to PI and TD-NSB as represented in Table one of this report.

4. Documents Reviewed

- e. Ameren Missouri’s *2013 - 2015 Energy Efficiency Plan*;
- f. Approved MEEIA Energy Efficiency and Demand Side Management Programs Tariff Sheets;
- g. Rider EEIC; and
- h. Staff Data Requests; 0002, 0002.1, 0004, and 0016.

Staff Expert: Dana Eaves

C. St. Louis Cardinals Sponsorship Costs

1. Description

Ameren Missouri engaged in advertising activities in order to effectively deliver its approved DSM programs to its customers. During Staff’s review it identified costs related to Ameren Missouri’s sponsorship of the St. Louis Cardinals baseball team. In its evaluation of allowable advertising costs, Staff relied on the principles that the Commission previously had determined appropriate in KCPL Case No. EO-85-185, et al.²⁷ As a result of the decision in that case, the Commission has subsequently recognized five categories of advertisements, and specific rate treatment for each of the following categories:

²⁷ Re: Kansas City Power and Light Company, 28 Mo.P.S.C. (N.S.) 228,269-71 (1986)

1. General: informational advertising that is useful in the provision of adequate service;
2. Safety: advertising which conveys the ways to safely use electricity and to avoid accidents;
3. Promotional: advertising used to encourage or promote the use of electricity;
4. Institutional: advertising used to improve the company's public image;
5. Political: advertising associated with political issues.

The Commission adopted these categories of advertising costs and provided the rationale that a utility's revenue requirement should: 1) always include the reasonable and necessary cost of general and safety advertisements; 2) never include the cost of instructional or political advertisements; and 3) include the cost of promotional advertisements only to the extent that the utility can provide cost-justification for the advertisement.

Based upon Staff's review, Staff has determined the costs associated with the advertising related to Ameren Missouri's sponsorship of the St. Louis Cardinal baseball team to be categorized as institutional and promotional advertising as it seeks to promote the overall Ameren Missouri's public image and to promote the use of electricity which is directly contrary to the goal of energy efficiency. Staff determined that the St. Louis Cardinal sponsorship does not meet the appropriate standard that would allow for recovery through Ameren Missouri's EEIC Rider.

As a result of this review and using this guidance from the Commission, Staff recommends a disallowance of \$110,547 during 2015 and \$14,849 for 2016 for a total of \$125,396 plus interest along with the associated adjustments to PI and TD-NSB as shown in Table 1 of this Report for non-MEEIA costs billed to Ameren Missouri's customers.

2. Summary of Cost Implications

If Ameren Missouri was imprudent in its decisions relating to the determination of the costs billed to customers, ratepayer harm could result in an increase in billed amounts.

3. Conclusion

Staff found Ameren Missouri has acted imprudently by including inappropriate advertising costs related to the sponsorship of the St. Louis Cardinals baseball team.

4. Documents Reviewed

- a. Ameren Missouri's *2013 - 2015 Energy Efficiency Plan*;
- b. Approved MEEIA Energy Efficiency and Demand Side Management Programs Tariff Sheets;

- c. Rider EEIC; and
- d. Staff Data Requests; 0002, 0002.1, 0004, and 0016.

D. Additional Adjustments

As discussed earlier in this Report, Staff is recommending two cost disallowances and an adjustment to the Cycle 1 performance incentive award amount. If the Commission were to order such adjustments be made, the two cost disallowance adjustments would result in upward adjustments to the amounts of TD-NSB and PI for Cycle 1 as described in Table 1.

For all of these adjustments, interest cost must be adjusted by the Company's short-term borrowing rate to reflect the disallowance or inclusion of costs from the time each adjustment was recognized on the Company's books or should have been recognized but were not.

Any adjustment to programs costs directly affects net benefits (net present value of gross program benefits minus net present value of program costs). The TD-NSB and PI are directly influenced by changes in the amount of net benefits. Second, any adjustment to program cost must be discounted at the discount rate of 6.95% to reflect its value back to the first program year (2013). Third, an adjustment to the Company's TD-NSB must be calculated by multiplying the discounted program cost adjustment by the Company's sharing percentage (26.34%). Fourth, an adjustment to the Company's PI must be calculated by multiplying the discounted program cost adjustment by the performance incentive sharing percentage (6.19%).

E. Applied Energy Group VisionDSM® Software

1. Description

Staff reviewed the controls Ameren Missouri has developed to help assure demand-side program incentive payments are handled properly. Staff also reviewed the incentive amounts paid to customers to make sure they complied with incentive levels for individual measures approved for each energy efficiency program. Data management and recordkeeping is critical for the proper administration of Rider EEIC. Ameren Missouri contracted with Applied Energy Group ("AEG") to provide an integrated software tracking system called VisionDSM® that allows Ameren Missouri to store, manage and process data for its entire DSM portfolio over each programs' life-cycle. VisionDSM® specifically allows Ameren to develop operating rules for its

approved energy efficiency programs, process customers' applications, support processing and payment of incentives and provide regulatory compliance and management reporting.

Ameren Missouri granted Staff remote on-line access to the VisionDSM[®] system for Staff's use in conducting Staff's MEEIA prudence review. Staff independently sampled customer data, incentive levels, customer applications and annual energy and demand savings for all of Ameren Missouri's approved energy efficiency programs. Staff is of the opinion the VisionDSM[®] system is suitable and that VisionDSM[®] provides Staff with an auditable trail of costs from time of application to time of payment of incentives. Through VisionDSM[®], Staff is able to verify deemed annual energy and demand savings at a measure level.

2. Summary of Cost Implications

If Ameren Missouri was imprudent in its decisions relating to the administration and implementation of the AEG VisionDSM[®], ratepayer harm could result in an increase in future "EEIRs.

3. Conclusion

Staff found no indication that Ameren Missouri has acted imprudently regarding the implementation and administration of the AEG VisionDSM[®] software.

4. Documents Reviewed

- a. Ameren Missouri's 2013 – 2015 *Energy Efficiency Plan*,
- b. Approved MEEIA Energy Efficiency and Demand Side Management Programs Tariff Sheets;
- c. Staff Data Requests; 0001, 0002, 0015 and 0018; and
- d. May 14 and 15, 2014 in-person meetings and interviews with Ameren Missouri.

Staff Expert: Dana Eaves

B. DSMore[®] Software

1. Description

Ameren Missouri used DSMore[®] software to screen all measures and programs for cost-effectiveness and to calculate Ameren Missouri's monthly Company TD-NSB Share for its MEEIA application and throughout the Review Period.

The costs related to DSMore[®] program are not MEEIA program costs because they are being treated under traditional ratemaking cost recovery as explained in the above section.

2. Summary of Cost Implications

If Ameren Missouri was imprudent in its decisions relating to the implementation and administration of DSMore[®] program, ratepayer harm could result in an increase in future EEIRs or an increase in revenue requirements under traditional ratemaking cost recovery.

3. Conclusion

Staff found no indication that Ameren Missouri has acted imprudently regarding the implementation and administration of the DSMore[®] software.

4. Documents Reviewed

- a. Ameren Missouri's 2013 – 2015 *Energy Efficiency Plan*,
- b. Approved MEEIA Energy Efficiency and Demand Side Management Programs Tariff Sheets;
- c. Staff Data Requests; 0010, and 0011; and
- d. May 14 and 15, 2014 in-person meetings and interviews with Ameren Missouri.

Staff Expert: Dana Eaves

D. Implementation Contractors

1. Description

Ameren Missouri hired business partners for design, implementation and delivery of its portfolio of residential and business energy efficiency programs to customers. Contracting with competent, experienced and reliable program implementers is extremely important to the success of Ameren Missouri's energy efficiency programs and for affording Ameren Missouri's customers the greatest benefits.

In 2012, Ameren Missouri issued RFPs for program implementers to directly administer one or more of Ameren Missouri's energy efficiency programs. Ameren Missouri selected and contracted with the organization identified in Table 2 to implement individual MEEIA programs. All of the implementers identified on Table 2 are national recognized contractors that have solid histories of energy efficiency programs' design and implementation.

Staff reviewed Ameren's relationships with its implementers to gauge if Ameren Missouri acted prudently in the selection and oversight of its program implementers. During Staff's first MEEIA prudence review of cost, Ameren Missouri held in-person meetings on May 14 and 15, 2014 at which a wide array of topics were discussed. During these discussions a very open dialogue occurred related to Ameren Missouri's overall working

relationship with its program implementers, problems that arose during the course of the deployment of specific programs and program implementer responsiveness and ability to solve problems and address issues as they arose. Staff is satisfied with Ameren Missouri's ability to form a good working partnership with the implementers. Staff used the information obtained during this 2014 meeting for this prudence review period and did not conduct a similar meeting during this review. Staff also examined the contracts between Ameren Missouri and the implementers in an effort to determine if the terms of the contract were followed during the implementation of the residential and business programs.

Achieved cumulative deemed annual energy and demand savings relative to the planned cumulative annual energy and demand savings for the same period is important to understanding the overall performance of Ameren Missouri's energy efficiency programs.

Table 7 below provides a comparison of achieved savings and planned saving for Ameren Missouri's residential and business programs for the Review Period. If Ameren Missouri was unable to achieve its planned energy and demand savings levels, then such a deficiency could be an indication the programs were not being prudently administered by the implementers and by Ameren Missouri. The results in Table 7 indicate that Ameren Missouri exceeded its plan for cumulative deemed annual energy savings by 45% during the Review Period. This fact alone is a strong indicator of the ability of Ameren Missouri and its program implementers to design and deliver effective demand-side programs.

Table 7

Cumulative Totals for July 1, 2014 through December 31, 2015

MEEIA Programs	Achieved Annual Energy Savings (kWh)	Planned Annual Energy Savings (kWh)	Variance	Achieved Annual Demand Savings (kW)	Planned Annual Demand Savings (kW)	Variance
Res. Lighting	140,816,378	109,293,982	31,522,396	5,604	3,286	2,318
Res. Efficient Products	18,132,094	32,381,807	(14,249,713)	2,038	5,019	(2,981)
Res. HVAC	84,241,419	80,402,512	3,838,907	28,402	48,031	(19,629)
Res. Refrigerator Recycling	14,725,010	19,853,883	(5,128,873)	2,660	2,765	(105)
Res. Home Energy Performance	1,036,749	1,605,000	(568,251)	129	525	(397)
Res. Energy Star New Homes	446,088	3,575,041	(3,128,952)	50	782	(732)
Res. Low Income	8,348,796	5,587,248	2,761,548	1,208	1,161	47
Total Residential Programs	267,746,534	252,699,473	15,047,061	40,090	61,569	(21,479)
Bus. Standard	74,524,601	73,023,918	1,500,683	11,674	13,303	(1,629)
Bus. Custom	217,123,579	109,028,647	108,094,932	29,952	31,338	(1,386)
Bus. Retro Commissioning	51,628,970	4,709,918	46,919,052	1,635	1,011	624
Bus. New Construction	38,485,679	8,984,111	29,501,568	6,525	2,789	3,736
Total Business Programs	381,762,829	195,746,594	186,016,235	49,786	48,441	1,345
Total Portfolio	649,509,363	448,446,068	201,063,295	89,877	110,011	(20,134)

2. Summary of Cost Implications

If Ameren Missouri was imprudent in its decisions relating to the selection and supervision of its program implementers, ratepayer harm could result in an increase in the future EEIRs.

3. Conclusion

Staff found no indication that Ameren Missouri has acted imprudently regarding the selection and supervision of its program implementers.

4. Documents Reviewed

- Ameren Missouri's 2013 – 2015 Energy Efficiency Plan,
- Approved MEEIA Energy Efficiency and Demand Side Management Programs Tariff Sheets;
- Staff Data Requests; 0001, 0002, 0002.1, 0015 and 0016; and
- May 14 and 15, 2014 in-person meetings and interviews with Ameren Missouri.

Staff Expert: Dana Eaves

C. Evaluation, Measurement and Verification Contractors

1. Description

Ameren Missouri is required to hire independent contractor(s) to perform and report EM&V of each commission-approved demand-side programs. Commission rules allow Ameren Missouri spend up to 5% of its total budget for EM&V for all approved demand-side program costs.²⁸ Ameren Missouri contracted with two EM&V contractors to provide the EM&V services for its demand-side programs. The Cadmus Group, Inc. (“Cadmus”) conducted and reported EM&V for the residential programs, and ADM Associates (“ADM”) conducted and reported EM&V for the business programs. Cadmus and ADM provided EM&V final reports for their respective programs for the 2013, 2014 and 2015 program years can be found as part of Case No. EO-2012-0142²⁹.

During this Review Period Ameren Missouri expended ** _____ **³⁰ for EM&V which represents ** ____ ** of the ** _____ **³¹ total programs’ costs. During the period January 2, 2013 through June 30, 2014 Ameren Missouri expended ** _____ ** for EM&V which represented ** ____ ** of the \$54,813,546 total program costs. Thus, the total costs of Cycle 1 EM&V equals ** _____ ** and is ** ____ ** of the Cycle 1 total program cost prior to any disallowances and does not exceed the 5% threshold³² for the entire *2013 – 2015 Energy Efficiency Plan*.

2. Summary of Cost Implications

If Ameren Missouri was imprudent in its decisions relating to the selection and supervision of its EM&V contractor’s ratepayer harm could result in an increase in future EEIRs.

3. Conclusion

Staff observed no indication that Ameren Missouri has acted imprudently regarding the selection and supervision of its EM&V contractors.

²⁸ 4 CSR 240-20.094(7)(A) Each utility’s EM&V budget shall not exceed five percent (5%) of the utility’s total budget for all approved demand-side program costs. 2012 Stipulation includes in its paragraph 11. EM&V a. Approximately five percent of the three-year MEEIA Programs’ costs budget will be spent for EM&V. Ameren Missouri will consider input from the stakeholder group, as described in paragraph 14, in its determination of how best to allocate and utilize the EM&V budget.

²⁹ The Evaluation, Measurement and Verification reports for program years 2013, 2014, and 2015 were filed in Missouri Public Service’s Electronic Filing Information System (“EFIS”), Case No. EO-2012-0142, the EFIS item numbers are: 150, 154, 294, 295, 297, 301, 302, 304, 318, 320, 321, and 331.

³⁰ Includes EM&V costs for the carry-over period.

³¹ Includes programs’ costs for the carry-over period.

³² 4 CSR 240.093(7)(A) Each utility’s EM&V budget shall not exceed five percent (5%) of the utility’s total budget for all approved demand-side program costs.

4. Documents Reviewed

- a. Ameren Missouri's *2013 – 2015 Energy Efficiency Plan*,
- b. Approved MEEIA Energy Efficiency and Demand Side Management Programs Tariff Sheets;
- c. Staff's MEEIA Prudence Review Report in EO-2015-0029
- d. Staff Data Requests; 0001, 0002, 0002.1, 0005 and 0016; and
- e. May 14 and 15, 2014 in-person meetings and interviews with Ameren Missouri.

Staff Expert: Dana Eaves

VIII. Throughput Disincentive – Net Shared Benefits (TD-NSB)

A. TD-NSB

1. Description

For a utility that operates under a traditional regulated utility model a “throughput incentive” is created when a utility's increase in revenues is linked directly to its increase in sales. This relationship between revenues and sales creates a financial disincentive for the utility to engage in any activity that would decrease sales, such as utility sponsored energy efficiency programs.

Annual net shared benefits are a determination of benefits that result from energy efficiency programs through net present value (“NPV”) of benefits (avoidance of costs of energy, capacity, transmission and distribution and probable environmental costs) less the NPV of costs for approved energy efficiency programs.

For Cycle 1, the sharing of annual net shared benefits between the customers and the utility is utilized to offset the throughput disincentive Ameren Missouri experiences as a result of its *2013 – 2015 Energy Efficiency Plan*. A sharing percentage of 26.34% was agreed to in the 2012 Stipulation. During Staff's first prudence review of costs, Staff determined that Ameren Missouri used an unauthorized sharing percentage in the calculation of the Company TD-NSB Share component. This error increased the calculated Company TD-NSB share by \$9,205. The Staff recommended to Ameren Missouri that this error be corrected in its accounting records and future Surveillance Monitoring Report filing prior to making its first adjustment to its EEIRs. Ameren Missouri made this correction in November 2014 and is recognized as part of this review and is reflected in the Company's actual TD-NSB amount.

The Company TD-NSB Share billed amount was \$87,320,049 while the actual amount was \$102,207,757; this resulted in the Company under-collecting its TD-NSB Share by \$14,887,708 for the Review Period prior to any adjustments to TD-NSB reflected in Table 2.

2. Summary of Cost Implications

If Ameren Missouri was imprudent in its reporting and/or calculating the Company TD-NSB Share, ratepayer harm could result in an increase in future EEIRs.

3. Conclusion

Staff saw no indication that Ameren Missouri had acted imprudently regarding the calculation of the TD-NSB of the program benefits.

4. Documents Reviewed

- a. Ameren Missouri's 2013 – 2015 Energy Efficiency Plan,
- b. Ameren Missouri's Quarterly Surveillance Reports
- c. Approved MEEIA Energy Efficiency and Demand Side Management Programs Tariff Sheets; and
- d. Staff Data Requests; 0001, 0002, 0002.1, 0010 and 0011

Staff Expert: Dana Eaves

B. Gross Deemed Annual Energy and Demand Savings

1. Description

Staff reviewed the monthly calculation of NPV of the benefits from Ameren Missouri's MEEIA programs calculated with DSMore[®] software³³. Ameren Missouri provided Staff its DSMore[®] software program files to show how the NPV of the programs' benefit were calculated during the Review Period. Staff was able to follow Ameren Missouri's calculation procedures for several sample months to verify that Ameren Missouri used the same values for avoided costs, deemed energy and demand savings for measures, incentive payments for measures, discount rate, and version of DSMore[®] software required by paragraph 6.b. of the 2012 Stipulation:

³³ DSMore[®] software is a financial analysis tool designed to evaluate the costs, benefits, and risks of demand side management (DSM) programs and services. This tool, built by Integral Analytics, is the industry-leading DSM cost-effectiveness model and is used in more than 27 states for DSM program planning. The power of DSMore lies in its ability to process millions of calculations resulting in thousands of cost effectiveness results that vary with weather and/or market prices.

... For purposes of determining the Ameren Missouri's TD-NSB Share, the only changes that will be made to the inputs³⁴ into the DSMore model³⁵ that was utilized for the MEEIA Report when the DSMore model is re-run (at any point in time) to calculate actual NSB are (i) the actual number of energy efficiency measures (by type) installed in each month up to that point, (ii) the actual program costs in each month incurred up to that point; and (iii) for Commercial and Industrial Custom measures for which the TRM does not provide a deemed value, savings determined according to the protocol provided for at pages 85 to 98 of the TRM. ...

To begin its review of Ameren Missouri's calculations of its monthly Company TD-NSB Share for the Review Period, Staff reviewed the version of DSMore[®] software that Ameren Missouri used to calculate the monthly NPV of benefits from its programs during the Review Period to verify that it is the same version of DSMore[®] specified in 2012 Stipulation. However, the version of DSMore[®] was incorrectly stated in 2012 Stipulation. The correct version of DSMore[®] is XLS Version 5.0.14, GCG Version 5.0.23. Ameren Missouri did use the same version of Batch files which have the same measure information as agreed in the 2012 Stipulation. Then, Ameren Missouri used the newer version of DSMore[®], DSMore[®] 2012 to run "*BatchTool*" files and "*BatchAggregation*" files with the automated procedural function.³⁶

To review the usage of the same values for avoided costs and discount rate, Staff compared the "Utility Input" tabs in DSMore[®] program's Batch files located in the files provided for the 2012 Stipulation to those in DSMore[®] program's Batch files for this prudence review. Staff did not find any different values for avoided costs and discount rate used to calculate the NPV of benefits from the programs.³⁷

Staff reviewed the input files for numbers of measures implemented (Columns S, T and U in each program tab) and incentive payments (Column D in Costs tabs) for each month. With these input files, the DSM planning team performed several steps³⁸ to calculate the NPV of

³⁴ Net-to-gross ratio equal 1.0 (except for the Refrigerator Recycling Program, which has a net-to-gross ratio of 0.64), avoided costs, and discount rate.

³⁵ DSMore Model – SLX Version 5.0.14, CSG Version 5.0.23.

³⁶ Staff made the data request in File No. EO-2015-0029, DR.0011.3, on October 16, 2014 and had a phone conference with Ameren Missouri (Robert Willen) on December 16, 2014.

³⁷ Staff compared Column G and H for avoided costs and Column N through R for discount rate from the file in the 2012 stipulation to those Columns from the prudence review file.

³⁸ These steps are described in Staff's data requests, DR 0011

benefits from the programs. Also, Staff reviewed all the steps performed by the DSM planning team and found the NPV of benefits from the programs to be \$384,510,388.

To calculate an aggregated deemed energy and demand savings from the programs, Ameren Missouri performed more procedures as shown in response to Staff's Data Request No. 0011 and the data supplied in response to Staff's Data Request No. 10. With these procedures and data, Staff verified the reported 649,509 MWh of energy savings and 89.8 MW of demand savings from the programs for the Review Period.

2. Summary of Cost Implications

If Ameren Missouri was imprudent in its decisions relating to calculating the NPV of the program benefits, ratepayer harm could result in an increase in future EEIRs.

3. Conclusion

Staff observed no indication that Ameren Missouri has acted imprudently regarding the calculation of the NPV of the program benefits by using the DSMore[®] software.

4. Documents Reviewed

- a. Ameren Missouri's *2013 – 2015 Energy Efficiency Plan*,
- b. Approved MEEIA Energy Efficiency and Demand Side Management Programs Tariff Sheets; and
- c. Staff Data Requests; 0010 and 0011.

Staff Expert: Dana Eaves

IX. Interest Costs

1. Description

The 2012 Stipulation provides that; "Interest shall be applied monthly at Ameren Missouri's short-term borrowing rate to the cumulative differences between the billed amount of monthly MEEIA Programs' costs and the monthly MEEIA Programs' costs actual incurred". During the Review Period ending December 31, 2015 the interest amount accrued for the under-recovery of program costs was (\$75,181) and for the under-recovery of TD-NSB Share was \$121,843 which will be recovered from customers as part of adjustments to the EEIRs under the Rider EEIC.

2. Summary of Cost Implications

If Ameren Missouri was imprudent in its reporting and/or calculating of the interest associated to over- or under-recovery of energy efficiency programs' costs and/or the Ameren Missouri's 90% of Company TD-NSB Share, ratepayer harm could result in an increase in future EEIRs.

3. Conclusion

Staff found no indication that Ameren Missouri has acted imprudently regarding the calculation of interest expense related to the under-recovery of interest costs related to program costs and TD-NSB Share.

4. Documents Reviewed

- a. Ameren Missouri's *2013 – 2015 Energy Efficiency Plan*,
- b. Approved MEEIA Energy Efficiency and Demand Side Management Programs Tariff Sheets; and
- c. Staff Data Requests; 0001, 0002, 0004, 0015 and 0016.

Staff Expert: Dana Eaves

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of the Second Prudence Review)
Of Union Electric Company d/b/a Ameren)
Missouri's Implementation of Energy)
Efficiency Programs in Furtherance of the)
Missouri Energy Efficiency Investment Act)
(MEEIA))

Case No. EO-2017-0023

AFFIDAVIT OF DANA E. EAVES

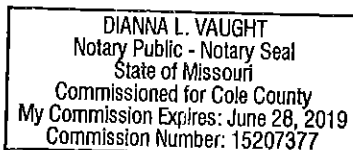
STATE OF MISSOURI)
) ss
COUNTY OF COLE)

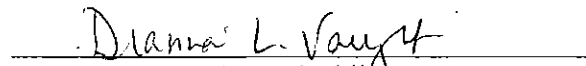
COMES NOW, Dana E. Eaves and on his oath declares that he is of sound mind and lawful age; that he contributed to the attached Staff Recommendation in Memorandum form; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.


Dana E. Eaves

Subscribed and sworn to be this 22nd day of December, 2016.




Notary Public

UNION ELECTRIC COMPANY

ELECTRIC SERVICE

MO.P.S.C. SCHEDULE NO. 63rd Revised SHEET NO. 90CANCELLING MO.P.S.C. SCHEDULE NO. 62nd Revised SHEET NO. 90APPLYING TO MISSOURI SERVICE AREARIDER EEICENERGY EFFICIENCY INVESTMENT CHARGEFor MEEIA CYCLE 1 PlanAPPLICABILITY

This Rider EEIC - Energy Efficiency Investment Charge (Rider EEIC) is applicable to all kilowatt-hours (kWh) of energy supplied to customers served by Ameren Missouri (Company) under Service Classification Nos. 1(M), 2(M), 3(M), 4(M), 11(M), and 12(M), excluding kWh of energy supplied to "opt-out" or "low-income" customers.

- * An Ameren Missouri low-income customer who has received assistance from Missouri Energy Assistance (a.k.a. Low Income Home Energy Assistance Program or LIHEAP), Winter Energy Crisis Intervention Program, or Summer Energy Crisis Intervention Program and (i) whose account has not automatically been exempted from Rider EEIC, or (ii) who has been charged Rider EEIC charges and whose account has not been credited for said charges, may provide the Company, via facsimile to **866.297.8054**, via email to myhomeamerenmissouri@ameren.com, or via regular mail to **Ameren Missouri, P.O. Box 790352, St. Louis, MO 63179-0352**

- a. documentation of the assistance received in the form of:
 - i. a copy of the Division of Social Services Family Support Division ("DSSFSD") form EA-7 energy assistance payment notice received by the low-income customer, or
 - ii. a copy of the DSSFSD LIHEAP Energy Assistance direct payment check received by the low-income customer, or
 - iii. a copy of the Contract Agency energy crisis intervention program ("ECIP") payment notification letter received by the low-income customer, or
 - iv. a printout of the low-income customer's DSSFSD LIHEAP EA EIRG System Registration screen identifying the supplier, benefit amount and payment processing date.
- b. Upon receipt of the documentation, the Company will credit the low-income customer's account for:
 - i. energy efficiency investment charges, and
 - ii. any municipal charges attributable to said EEIC charges, that were previously charged to the low-income customer within twelve billing months following the documented receipt of energy assistance; provided that the low-income customer shall not be entitled to any credit, nor shall Company credit the low-income customer, for energy efficiency investment charges and associated municipal charges incurred and billed prior to the June 2015 commencement of the low-income exemption.
- c. Upon receipt of the documentation, for the remainder of the twelve months following the documented receipt of energy assistance, the Company will exempt such low-income customer from any Rider EEIC charges thereafter imposed. The exemption will be evidenced on the low-income customer's bill as an EEIC charge, followed by a credit.

Charges passed through this Rider EEIC reflect the charges approved to be collected from the implementation of the MEEIA Cycle 1 Plan. Those charges include: 1) projected Program Costs, projected Ameren Missouri's TD-NSB Share and Performance Incentive Award (if any) for each Effective Period,

* Indicates Addition.

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Service Commission
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NAME OF OFFICERPresident
TITLESt. Louis, Missouri
ADDRESS

UNION ELECTRIC COMPANY

ELECTRIC SERVICE

MO.P.S.C. SCHEDULE NO. 62nd Revised SHEET NO. 90.1CANCELLING MO.P.S.C. SCHEDULE NO. 61st Revised SHEET NO. 90.1APPLYING TO MISSOURI SERVICE AREARIDER EEICENERGY EFFICIENCY INVESTMENT CHARGE (Cont'd.)For MEEIA CYCLE 1 Plan*** APPLICABILITY (Cont'd.)**

2) Reconciliations, with interest, to true-up for differences between the revenues billed under this Rider EEIC and total actual monthly amounts for: i) Program Costs incurred, ii) Ameren Missouri's TD-NSB Share incurred, and iii) amortization of any Performance Incentive Award ordered by the Missouri Public Service Commission (Commission) and 3) any Ordered Adjustments. Charges under this Rider EEIC shall continue after the anticipated December 31, 2015 end of MEEIA Cycle 1 Plan until such time as the charges described in items 1), 2) and 3) in the immediately preceding sentence have been billed. Charges arising from the MEEIA Cycle 1 Plan that are the subject of this Rider EEIC shall be reflected in one "Energy Efficiency Invest Chg" on customers' bills in combination with any charges arising from a rider that is applicable to post-MEEIA Cycle 1 Plan demand-side management programs approved under the Missouri Energy Efficiency Investment Act.

*** DEFINITIONS**

As used in this Rider EEIC, the following definitions shall apply:

"Ameren Missouri's TD-NSB Share" means 26.34% of the TD-NSB multiplied by the Time-Value Adjustment Factor.

"Effective Period" (EP) means the twelve (12) billing months beginning with the February billing month and ending with the January billing month. Where an additional EEIC filing is made during a calendar year, the Effective Period for such a filing shall begin with the June or October billing month and end with the subsequent January billing month.

"Evaluation Measurement & Verification - Net Shared Benefits" (EM&V-NSB) means the 2013 present value of the lifetime avoided costs (i.e., avoided energy, capacity, transmission and distribution, and probable environmental compliance costs) for the MEEIA Cycle 1 Plan using the EM&V results described in paragraph 11 of the Stipulation less the 2013 present value of Program Costs. Paragraphs 5.b.ii and 6. c. of the Stipulation provide further description of the EM&V-NSB.

"MEEIA Cycle 1 Plan" has the same meaning as the defined term "Plan" provided for in paragraph 4 of the Stipulation, as it may be hereafter amended by Commission-approved amendments to the Stipulation.

"MWH Target" has the meaning provided for in paragraph 5.b.ii and Appendix B of the Stipulation.

"Program Costs" means program expenditures, including such items as program design, administration, delivery, end-use measures and incentive payments, evaluation, measurement and verification, market potential studies and work on the Technical Resource Manual (TRM).

"Low-Income" customers means those Service Classification 1(M)-Residential customers eligible for the low income exemption provisions contained in Section 393.1075.6, RSMo. As approved in File No. ER-2014-0258, customers eligible under this definition will be exempt from Rider EEIC charges for 12 billing months following assistance received from either Missouri Energy Assistance (a.k.a. Low Income Home Energy Assistance Program or LIHEAP), Winter Energy Crisis Intervention Program, Summer Energy Crisis Intervention Program, the Company's Keeping Current Low Income Pilot Program, and/or the Company's Keeping Cool Low Income Pilot Program.

* Indicates Reissue.

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UNION ELECTRIC COMPANY

ELECTRIC SERVICE

MO.P.S.C. SCHEDULE NO. 61st Revised SHEET NO. 90.2CANCELLING MO.P.S.C. SCHEDULE NO. 6Original SHEET NO. 90.2APPLYING TO MISSOURI SERVICE AREARIDER EEICENERGY EFFICIENCY INVESTMENT CHARGE (Cont'd.)For MEEIA CYCLE 1 Plan* DEFINITIONS (Cont'd.)

"Performance Incentive Award" means the sum of a two-year annuity (using 6.95% as a discount rate and not discounting the first period) of a percentage of EM&V-NSB as described below and further described in paragraph 5.b.ii and Appendix B of the Stipulation:

Percent of MWH Target	Percent of EM&V-NSB*
<70	0.00%
70	4.60%
80	4.78%
90	4.92%
100	5.03%
110	5.49%
120	5.87%
130	6.19%
>130	6.19%

*Includes income taxes (i.e. results in revenue requirement without adding income taxes). The percentages are interpolated linearly between the performance levels.

"Stipulation" means the Stipulation and Agreement approved by the Commission in its order effective August 11, 2012, as amended by order effective December 29, 2012, in File No. EO-2012-0142, as it may be amended further by subsequent Commission orders.

"Throughput Disincentive - Net Shared Benefits" (TD-NSB) means the 2013 present value of the lifetime avoided costs (i.e., avoided energy, capacity, transmission and distribution, and probable environmental compliance costs) for the MEEIA Cycle 1 Plan using the deemed values in the TRM, less the 2013 present value of Program Costs as further described in paragraphs 5.b.i and 6. b. of the Stipulation.

"Time-Value Adjustment Factor" means the factor used each month to convert Ameren Missouri's TD-NSB Share from a present value into a nominal revenue requirement. The factor is $[1.0695 ^ {(\text{Calendar Year} - 2013)}]$.

ENERGY EFFICIENCY INVESTMENT RATE (EEIR) DETERMINATION

The EEIR during each applicable EP is a dollar per kWh rate for each Service Classification calculated as follows:

$$\text{EEIR} = [\text{NPC} + \text{NTD} + \text{NPI} + \text{NOA}] / \text{PE}$$

Where:

NPC = Net Program Costs for the applicable EP as defined below,

$$\text{NPC} = \text{PPC} + \text{PCR}$$

PPC = Projected Program Costs is an amount equal to Program Costs projected by the Company to be incurred during the applicable EP.

PCR = Program Costs Reconciliation is equal to the cumulative difference, if any, between the PPC revenues billed resulting from the application of the EEIR and the actual Program Costs incurred through the end of the previous EP (which will reflect projections through the end of the previous EP due to timing of adjustments). Such amounts shall include monthly interest charged at the Company's monthly short-term borrowing rate.

* Indicates Reissue.

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UNION ELECTRIC COMPANY

ELECTRIC SERVICE

MO.P.S.C. SCHEDULE NO. 61st Revised SHEET NO. 90.3CANCELLING MO.P.S.C. SCHEDULE NO. 6Original SHEET NO. 90.3APPLYING TO MISSOURI SERVICE AREARIDER EEICENERGY EFFICIENCY INVESTMENT CHARGE (Cont'd.)For MEEIA CYCLE 1 PlanEEIR DETERMINATION (Cont'd.)

- * NTD = Net Throughput Disincentive for the applicable EP as defined below,

$$NTD = PTD + TDR$$

- * PTD = Projected Throughput Disincentive is 90% of Ameren Missouri's TD-NSB Share projected by the Company to be incurred during the applicable EP.

- * TDR = Throughput Disincentive Reconciliation is equal to the cumulative difference, if any, between the PTD revenues billed resulting from the application of the EEIR and 100% of Ameren Missouri's TD-NSB Share through the end of the previous EP as adjusted for the inputs described in paragraph 6.b. of the Stipulation, (which will reflect projections through the end of the previous EP due to timing of adjustments). Prior to the beginning of the February 2014 billing month, such amounts shall include monthly interest charged at the Company's monthly Allowance for Funds Used During Construction (AFUDC) rate. Beginning with the start of the February 2014 billing month, any cumulative difference and all subsequent amounts shall include monthly interest charged at the Company's monthly short-term borrowing rate.

- NPI = Net Performance Incentive for the applicable EP as defined below,

$$NPI = PI + PIR$$

- PI = Performance Incentive is equal to the Performance Incentive Award monthly amortization multiplied by the number of billing months in the applicable EP.

The monthly amortization shall be determined by dividing the Performance Incentive Award by the number of available billing months between the first billing month of the first EEIR filing after the determination of the Performance Incentive Award and 24 calendar months following the end of the annual period in which the Performance Incentive Award is determined.

The number of applicable billing months in the EP shall be the number of applicable billing months less the number of months including Performance Incentive Award amortization from previous EPs.

- PIR = Performance Incentive Reconciliation is equal to the cumulative difference, if any, between the PI revenues billed resulting from the application of the EEIR and the monthly amortization of the Performance Incentive Award through the end of the previous EP (which will reflect projections through the end of the previous EP due to timing of adjustments). Such amounts shall include monthly interest charged at the Company's monthly short-term borrowing rate.

- NOA = Net Ordered Adjustment for the applicable EP as defined below,

$$NOA = OA + OAR$$

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UNION ELECTRIC COMPANY

ELECTRIC SERVICE

MO.P.S.C. SCHEDULE NO. 62nd RevisedSHEET NO. 90.4CANCELLING MO.P.S.C. SCHEDULE NO. 61st RevisedSHEET NO. 90.4APPLYING TO MISSOURI SERVICE AREARIDER EEICENERGY EFFICIENCY INVESTMENT CHARGE (Cont'd.)For MEEIA CYCLE 1 PlanEEIR DETERMINATION (Cont'd.)

- * OA = Ordered Adjustment is the amount of any adjustment to the EEIC ordered by the Commission as a result of prudence reviews and/or corrections under this Rider EEIC. Such amounts shall include monthly interest at the Company's monthly short-term borrowing rate.
- * OAR = Ordered Adjustment Reconciliation is equal to the cumulative difference, if any, between the OA revenues billed resulting from the application of the EEIR and the actual OA ordered by the Commission through the end of the previous EP (which will reflect projections through the end of the previous EP due to timing of adjustments). Such amounts shall include monthly interest charged at the Company's monthly short-term borrowing rate.
- PE = Projected Energy, in kWh, forecasted to be delivered to the customers to which the Rider EEIC applies during the applicable EP.

The EEIR components and Total EEIR applicable to the individual Service Classifications shall be rounded to the nearest \$0.000001.

Allocations of charges for each Service Classification for the MEEIA Cycle 1 Plan will be made in accordance with the Stipulation.

This Rider EEIC shall not be applicable to customers that have satisfied the opt-out provisions contained in Section 393.1075.7, RSMo or the low-income exemption provisions described herein.

FILING

The Company shall make an EEIC filing each calendar year to be effective for the subsequent calendar year's February billing month. The Company is allowed or may be ordered by the Commission to make one other EEIC filing in each calendar year with such subsequent filing to be effective beginning with either the June or October billing month. Rider EEIC filings shall be made at least sixty (60) days prior to their effective dates.

PRUDENCE REVIEWS

A prudence review shall be conducted no less frequently than at twenty-four (24) month intervals in accordance with 4 CSR 240-20.093(10). Any costs which are determined by the Commission to have been imprudently incurred or incurred in violation of the terms of this Rider EEIC shall be addressed through an adjustment in the next EEIR determination and reflected in factor OA above.

* Indicates Reissue.

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TITLESt. Louis, Missouri
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UNION ELECTRIC COMPANY

ELECTRIC SERVICE

MO.P.S.C. SCHEDULE NO. 64th RevisedSHEET NO. 90.5CANCELLING MO.P.S.C. SCHEDULE NO. 63rd RevisedSHEET NO. 90.5APPLYING TO MISSOURI SERVICE AREA

*THIS SHEET RESERVED FOR FUTURE USE

* Indicates Change.

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UNION ELECTRIC COMPANY

ELECTRIC SERVICE

MO.P.S.C. SCHEDULE NO. 6

1st Revised

SHEET NO. 91CANCELLING MO.P.S.C. SCHEDULE NO. 6

Original

SHEET NO. 91

APPLYING TO

MISSOURI SERVICE AREARIDER EEICENERGY EFFICIENCY INVESTMENT CHARGEFor MEEIA Cycle 2 PlanAPPLICABILITY

This Rider EEIC - Energy Efficiency Investment Charge (Rider EEIC) is applicable to all kilowatt-hours (kWh) of energy supplied to customers served under Company's Service Classification Nos. 1(M), 2(M), 3(M), 4(M), 11(M), and 12(M), excluding kWh of energy supplied to "opt-out" or "low-income" customers.

An Ameren Missouri low-income customer who has received assistance from Missouri Energy Assistance (a.k.a. Low Income Home Energy Assistance Program or LIHEAP), Winter Energy Crisis Intervention Program, or Summer Energy Crisis Intervention Program and (i) whose account has not automatically been exempted from Rider EEIC, or (ii) who has been charged Rider EEIC charges and whose account has not been credited for said charges, may provide the Company, via facsimile to **866.297.8054**, via email to myhomeamerenmissouri@ameren.com, or via regular mail to **Ameren Missouri, P.O. Box 790352, St. Louis, MO 63179-0352**

- a. documentation of the assistance received in the form of:
 - i. a copy of the Division of Social Services Family Support Division ("DSSFSFSD") form EA-7 energy assistance payment notice received by the low-income customer, or
 - ii. a copy of the DSSFSFSD LIHEAP Energy Assistance direct payment check received by the low-income customer, or
 - iii. a copy of the Contract Agency energy crisis intervention program ("ECIP") payment notification letter received by the low-income customer, or
 - iv. a printout of the low-income customer's DSSFSFSD LIHEAP EA EIRG System Registration screen identifying the supplier, benefit amount and payment processing date.
- b. Upon receipt of the documentation, the Company will credit the low-income customer's account for:
 - i. energy efficiency investment charges, and
 - ii. any municipal charges attributable to said EEIC charges, that were previously charged to the low-income customer within twelve billing months following the documented receipt of energy assistance; provided that the low-income customer shall not be entitled to any credit, nor shall Company credit the low-income customer, for energy efficiency investment charges and associated municipal charges incurred and billed prior to the June 2015 commencement of the low-income exemption.
- c. Upon receipt of the documentation, for the remainder of the twelve months following the documented receipt of energy assistance, the Company will exempt such low-income customer from any Rider EEIC charges thereafter imposed. The exemption will be evidenced on the low-income customer's bill as an EEIC charge, followed by a credit.

Charges passed through this Rider EEIC reflect the charges approved to be billed from the implementation of the Missouri Energy Efficiency Investment Act (MEEIA) 2016-18 Plan and any remaining unrecovered balances from the MEEIA 2013-15 plan. Those charges include:

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UNION ELECTRIC COMPANY

ELECTRIC SERVICE

MO.P.S.C. SCHEDULE NO. 6Original SHEET NO. 91.1

CANCELLING MO.P.S.C. SCHEDULE NO. _____

SHEET NO. _____

APPLYING TO MISSOURI SERVICE AREARIDER EEICENERGY EFFICIENCY INVESTMENT CHARGE (Cont'd.)For MEEIA Cycle 2 PlanAPPLICABILITY (Cont'd.)

- 1) Program Costs, Company's Throughput Disincentive ((TD) and Earnings Opportunity (EO) Award (if any) for each Effective Period (EP)
- 2) Reconciliations, with interest, to true-up for differences between the revenues billed under this Rider EEIC and total actual monthly amounts for:
 - i) Program Costs incurred in the MEEIA 2016-18 Plan and/or remaining unrecovered Program balances for MEEIA 2013-15, and
 - ii) Company's TD incurred in the MEEIA 2016-18 Plan and/or remaining TD-NSB Share balances for MEEIA 2013-15, and
 - iii) Amortization of Earnings Opportunity ordered by the Missouri Public Service Commission (Commission) and/or remaining balances for the MEEIA 2013-15 Performance Incentive,
- 3) Any Ordered Adjustments.

Charges under this Rider EEIC shall continue after the anticipated February 28, 2019 end of MEEIA 2016-18 Plan until such time as the charges described in items 1), 2), and 3) above have been billed.

Charges arising from the MEEIA 2016-18 Plan that are the subject of this Rider EEIC shall be reflected in one "Energy Efficiency Invest Chg" on customers' bills in combination with any charges arising from a rider that is applicable to the MEEIA 2013-15 Plan demand-side management programs.

DEFINITIONS

As used in this Rider EEIC, the following definitions shall apply:

"AFUDC" means the Allowance for Funds Used During Construction rate computed in accordance with the formula prescribed in the Code of Federal Regulations Title 18 Part 101.

"Company's Throughput Disincentive" (TD) means to represent the utility's lost margins associated with the successful implementation of MEEIA programs. The detailed method for calculating the TD is described in Tariff Sheets 91.6 - 91.8.

"Earnings Opportunity" (EO) means the amount ordered by the Commission based on actual performance verified through Evaluation Measurement & Verification (EM&V) against planned targets. The details of determining EO are described herein.

"Effective Period" (EP) means the twelve (12) billing months beginning with the February billing month and ending with the January billing month. Where an additional Rider EEIC filing is made to change the EEIC components during a calendar year, the EP for such a filing shall begin with the June or October billing month and end with the subsequent January billing month.

"End Use Category" means the unique summary category of end-use load shapes. The list of End Use Categories is included in Appendix E to the Stipulation.

"Evaluation Measurement & Verification" (EM&V) means the performance of studies and activities intended to evaluate the process of the Company's program delivery and oversight and to estimate and/or verify the estimated actual energy and demand savings, cost effectiveness, and other effects from demand-side programs.

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UNION ELECTRIC COMPANY

ELECTRIC SERVICE

MO.P.S.C. SCHEDULE NO. 6Original SHEET NO. 91.2

CANCELLING MO.P.S.C. SCHEDULE NO. _____

SHEET NO. _____

APPLYING TO MISSOURI SERVICE AREARIDER EEICENERGY EFFICIENCY INVESTMENT CHARGE (Cont'd.)For MEEIA Cycle 2 PlanDEFINITIONS (Cont'd.)

"Incentive" means any consideration provided by the Company, including, but not limited to, buy downs, markdowns, rebates, bill credits, payments to third parties, direct installation, giveaways, and education, which encourages the adoption of program measures.

"Low-Income" customers means those Service Classification 1(M)-Residential customers eligible for the low income exemption provisions contained in Section 393.1075.6, RSMo. As approved in File No. ER-2014-0258, customers eligible under this definition will be exempt from Rider EEIC charges for 12 billing months following assistance received from either Missouri Energy Assistance (a.k.a. Low Income Home Energy Assistance Program or LIHEAP), Winter Energy Crisis Intervention Program, Summer Energy Crisis Intervention Program, the Company's Keeping Current Low Income Pilot Program, and/or the Company's Keeping Cool Low Income Pilot Program.

"Measure" means energy efficiency measures described for each program attached as Appendix B to the Stipulation

"MEEIA 2013-15 Plan" means Company's "2013-15 Energy Efficiency Plan" submitted in File No. EO-2012-0142 and its corresponding tariff sheets.

"MEEIA 2016-18 Plan" means Company's "2016-18 Energy Efficiency Plan" submitted in File No. EO-2015-0055 and modified by the Stipulation.

"Programs" means MEEIA 2016-18 programs listed in tariff sheet no. 174 and added in accordance with the Commission's rule 4 CSR 240-20.094(4).

"Program Costs" means any prudently incurred program expenditures, including such items as program planning, program design, administration, delivery, end-use measures and incentive payments, advertising expense, evaluation, measurement and verification, market potential studies and work on a utility and/or statewide Technical Resource Manual (TRM).

"TRM" means the Company's Technical Resource Manual (attached as Appendix F to the Stipulation) and updated based on EM&V ex-post gross adjustments determined for Year 1 no later than twenty-four (24) months after commencement of MEEIA 2016-18.

"Stipulation" means the Stipulation and Agreement approved by the Commission in File No. EO-2015-0055, as it may be amended further by subsequent Commission orders.

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ISSUED BY	<u>Michael Moehn</u>	President	<u>St. Louis, Missouri</u>
	NAME OF OFFICER	TITLE	ADDRESS

UNION ELECTRIC COMPANY

ELECTRIC SERVICE

MO.P.S.C. SCHEDULE NO. 6Original SHEET NO. 91.3

CANCELLING MO.P.S.C. SCHEDULE NO. _____

SHEET NO. _____

APPLYING TO MISSOURI SERVICE AREARIDER EEICENERGY EFFICIENCY INVESTMENT CHARGE (Cont'd.)For MEEIA Cycle 2 PlanENERGY EFFICIENCY INVESTMENT RATE (EEIR) DETERMINATION

The EEIR during each applicable EP is a dollar per kWh rate for each applicable Service Classification calculated as follows:

$$EEIR = [NPC + NTD + NEO + NOA] / PE$$

Where:

NPC = Net Program Costs for the applicable EP as defined below,

$$NPC = PPC + PCR$$

PPC = Projected Program Costs is an amount equal to Program Costs projected by the Company to be incurred during the applicable EP.

PCR = Program Costs Reconciliation is equal to the cumulative difference, if any, between the PPC revenues billed resulting from the application of the NPC component of the EEIR and the actual Program Costs incurred through the end of the previous EP (which will reflect projections through the end of the previous EP due to timing of adjustments). Such amounts shall include monthly interest charged at the Company's monthly short-term borrowing rate. Any remaining PCR balance from MEEIA Cycle 1 shall be rolled into the PCR calculation starting February 2017.

NTD = Net Throughput Disincentive for the applicable EP as defined below,

$$NTD = PTD + TDR$$

PTD = Projected Throughput Disincentive is the Company's TD projected by the Company to be incurred during the applicable EP. For the detailed method for calculating the TD, see Sheet 91.6.

TDR = Throughput Disincentive Reconciliation is equal to the cumulative difference, if any, between the PTD revenues billed during the previous EP resulting from the application of the NTD component of the EEIR and the Company's TD through the end of the previous EP (which will reflect projections through the end of the previous EP due to timing of adjustments). Such amounts shall include monthly interest charged at the Company's monthly short-term borrowing rate. Any remaining TDR balance from MEEIA Cycle 1 shall be rolled into the TDR calculation starting February 2017.

NEO = Net Earnings Opportunity for the applicable EP as defined below,

$$NEO = EO + EOR$$

EO = Earnings Opportunity is equal to the Earnings Opportunity Award monthly amortization multiplied by the number of billing months in the applicable EP.

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	NAME OF OFFICER	TITLE	ADDRESS

UNION ELECTRIC COMPANY

ELECTRIC SERVICE

MO.P.S.C. SCHEDULE NO. 6Original SHEET NO. 91.4

CANCELLING MO.P.S.C. SCHEDULE NO. _____

SHEET NO. _____

APPLYING TO MISSOURI SERVICE AREARIDER EEICENERGY EFFICIENCY INVESTMENT CHARGE (Cont'd.)For MEEIA Cycle 2 PlanEEIR DETERMINATION (Cont'd.)

The monthly amortization shall be determined by dividing the Earnings Opportunity Award by the number of available billing months between the first billing month of the first EEIR filing after the determination of the Earnings Opportunity Award and 24 calendar months following the end of the annual period in which the Earnings Opportunity Award is determined.

The number of applicable billing months in the EP shall be the number of applicable billing months less the number of months including Earnings Opportunity Award amortization from previous EPs.

EOR = Earnings Opportunity Reconciliation is equal to the cumulative difference, if any, between the EO revenues billed resulting from the application of the NEO+NPI component of the EEIR and the monthly amortization of the Performance Incentive Award through the end of the previous EP (which will reflect projections through the end of the previous EP due to timing of adjustments). Such amounts shall include monthly interest charged at the Company's monthly short-term borrowing rate. Any remaining PIR balance from MEEIA Cycle 1 shall be rolled into the EOR calculation starting February 2019.

NOA = Net Ordered Adjustment for the applicable EP as defined below,

$$NOA = OA + OAR$$

OA = Ordered Adjustment is the amount of any adjustment to the Rider EEIC ordered by the Commission as a result of prudence reviews and/or corrections under this Rider EEIC. Such amounts shall include monthly interest at the Company's monthly short-term borrowing rate.

OAR = Ordered Adjustment Reconciliation is equal to the cumulative difference, if any, between the OA revenues billed resulting from the application of the EEIR and the actual OA ordered by the Commission through the end of the previous EP (which will reflect projections through the end of the previous EP due to timing of adjustments). Such amounts shall include monthly interest charged at the Company's monthly short-term borrowing rate.

PE = Projected Energy, in kWh, forecasted to be delivered to the customers to which the Rider EEIC applies during the applicable EP.

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UNION ELECTRIC COMPANY

ELECTRIC SERVICE

MO.P.S.C. SCHEDULE NO. 6Original SHEET NO. 91.5

CANCELLING MO.P.S.C. SCHEDULE NO. _____

SHEET NO. _____

APPLYING TO MISSOURI SERVICE AREARIDER EEICENERGY EFFICIENCY INVESTMENT CHARGE (Cont'd.)For MEEIA Cycle 2 PlanEEIR DETERMINATION (Cont'd.)

The EEIR components and Total EEIR applicable to the individual Service Classifications shall be rounded to the nearest \$0.000001.

Allocations of charges for each applicable Service Classification for the MEEIA 2016-18 Plan will be made in accordance with the Stipulation and Agreement in File No. EO-2015-0055, Company's MEEIA 2016-18 Plan.

This Rider EEIC shall not be applicable to customers that have satisfied the opt-out provisions contained in Section 393.1075.7, RSMo or the low-income exemption provisions described herein.

FILED
Missouri Public
Service Commission
EO-2015-0055; YE-2016-0198

DATE OF ISSUE	<u>February 5, 2016</u>	DATE EFFECTIVE	<u>March 6, 2016</u>
ISSUED BY	<u>Michael Moehn</u>	<u>President</u>	<u>St. Louis, Missouri</u>
	NAME OF OFFICER	TITLE	ADDRESS

UNION ELECTRIC COMPANY

ELECTRIC SERVICE

MO.P.S.C. SCHEDULE NO. 6Original SHEET NO. 91.6

CANCELLING MO.P.S.C. SCHEDULE NO. _____

SHEET NO. _____

APPLYING TO MISSOURI SERVICE AREA

RIDER EEIC
ENERGY EFFICIENCY INVESTMENT CHARGE (Cont'd.)
For MEEIA Cycle 2 Plan

TD DETERMINATION

Monthly TD is the sum of the TD calculation for all End Use Categories applicable to Service Classifications as set out in the Availability section herein.

The TD for each End Use Category shall be determined by the following formula:

$$TD = MS \times NMR \times NTGF$$

Where:

TD = Throughput Disincentive, in dollars, to be collected for a given month, for a given Service Classification.

MS = Monthly Savings, is the sum of all programs' monthly savings, in kWh, for a given month, for a given Service Classification. The MS for each End Use Category shall be determined by the following formula:

$$MS = ((MAS_{CM} / 2) + CAS_{PM} - RB) \times LS$$

Where:

MAS_{CM} = The sum of (MC x ME) for all measures in a program in the current calendar month.

MC = Measure Count. MC for a given month, for a given Service Classification, for each measure, is the number of each measure installed in the current calendar month. For the Home Energy Report program, the number of reports mailed during the current calendar month shall be used as the Measure Count.

ME = Measure Energy. ME will be determined as follows, for each Measure:

- a. Prior to finalization of EM&V for MEEIA 2016-18 Plan, Year 1 programs, for Measures not listed under those programs listed in (c) below, the ME is the annual total of normalized savings for each measure at customer meter per measure defined in the Company's Technical Resource Manual (TRM).
- b. After finalization of EM&V for MEEIA 2016-18 Plan, Year 1 programs, for Measures not listed under those programs listed in (c) below, the ME is the annual total of normalized savings for each measure at customer meter per measure defined in the updated TRM (which will be updated based on EM&V ex-post gross adjustments determined for Year 1 no later than 24 months after the commencement of MEEIA 2016-18 Plan).

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ISSUED BY <u>Michael Moehn</u>	<u>President</u>	<u>St. Louis, Missouri</u>
NAME OF OFFICER	TITLE	ADDRESS

UNION ELECTRIC COMPANY

ELECTRIC SERVICE

MO.P.S.C. SCHEDULE NO. 6Original SHEET NO. 91.7

CANCELLING MO.P.S.C. SCHEDULE NO. _____

SHEET NO. _____

APPLYING TO MISSOURI SERVICE AREARIDER EEICENERGY EFFICIENCY INVESTMENT CHARGE (Cont'd.)For MEEIA Cycle 2 PlanTD DETERMINATION (Cont'd.)

c. For Measures under the -Business Custom Incentive Program, Business New Construction Incentive Program, and Business Retro-Commissioning Program, the ME will be the annual value attributable to the installations reported monthly by the program implementer.

CM = Current calendar month.

CAS = Cumulative sum of MAS of all prior calendar months for each End Use Category for the MEEIA 2016-18 Plan.

PM = Prior calendar month.

RB = Rebasing Adjustment. The RB shall equal the CAS applicable as of the date used for MEEIA normalization when base rates are adjusted in any general electric rate case or otherwise resulting in new retail electric rates becoming effective during the accrual and collection of TD pursuant to this MEEIA 2016-18 Plan. In the event base rates are adjusted by more than one general electric rate case or otherwise resulting in new rates becoming effective during the accrual and collection of TD pursuant to this MEEIA 2016-18 Plan occurs, the RB adjustment shall include each and every prior RB adjustment calculation.

LS = Load Shape. The LS is the monthly load shape percent (%) for each End-Use Category (attached as Appendix E to the Stipulation).

NMR = Net Margin Revenue. NMR values for each applicable Service Classification are as follows:

Month	Service Classifications				
	1 (M) Res \$/kWh	2 (M) SGS \$/kWh	3 (M) LGS \$/kWh	4 (M) SPS \$/kWh	11 (M) LPS \$/kWh
January	0.043434	0.048788	0.036637	0.034915	0.029993
February	0.044138	0.048894	0.037264	0.035047	0.030043
March	0.045304	0.051013	0.038341	0.035644	0.031535
April	0.046874	0.054946	0.039250	0.036748	0.030815
May	0.049491	0.059735	0.040815	0.038016	0.031955
June	0.103908	0.090608	0.077915	0.072737	0.058070
July	0.103908	0.090608	0.075872	0.072470	0.059464
August	0.103908	0.090608	0.076876	0.071831	0.057987
September	0.103908	0.090608	0.076056	0.071710	0.058871
October	0.047785	0.056412	0.039397	0.036715	0.032203
November	0.049057	0.057213	0.039835	0.036993	0.032565
December	0.044989	0.052135	0.038004	0.035835	0.030688

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DATE OF ISSUE February 5, 2016DATE EFFECTIVE March 6, 2016

ISSUED BY Michael Moehn
NAME OF OFFICER

President
TITLE

St. Louis, Missouri
ADDRESS

UNION ELECTRIC COMPANY

ELECTRIC SERVICE

MO.P.S.C. SCHEDULE NO. 6Original SHEET NO. 91.8

CANCELLING MO.P.S.C. SCHEDULE NO. _____

SHEET NO. _____

APPLYING TO MISSOURI SERVICE AREARIDER EEICENERGY EFFICIENCY INVESTMENT CHARGE (Cont'd.)For MEEIA Cycle 2 PlanTD DETERMINATION (Cont'd.)

The Company shall file an update to NMR rates by month by Service Classification contemporaneous with filing any compliance tariff sheets in any general electric rate case reflecting the rates set in that case, and the billing determinants used in setting rates in such case. Updates to the NMR values shall be calculated following the same process described on pages 32-35 of the Company's filed December 22, 2014 2016-18 Energy Efficiency Plan.

NTGF = Net To Gross Factor. The initial NTGF is 0.85. Upon completion of the three year cycle, the final portfolio Net To Gross factor applied for the Earnings Opportunity shall be used as the NTGF prospectively starting with the month in which the Earnings Opportunity is determined.

Annual kWh savings per measure will be updated prospectively in the Company's TRM no later than twenty-four (24) months after the commencement of the plan based on EM&V ex-post gross adjustments determined for Year 1.

The Company shall file a general electric rate case at some point before February 28, 2021 to make a Rebasing Adjustment to rebase the TD arising from the MEEIA 2016-18 plan in its entirety, and if Company fails to do so, the accrual and collection of the TD terminates beginning March 1, 2021. The filing of a general electric rate case utilizing an update or true-up period that ends between thirty (30) months and sixty (60) months after the effective date of the electric tariff sheets implementing MEEIA 2016-18 satisfies this requirement. For the rate case used to rebase the TD arising from the MEEIA 2016-18 plan in its entirety, the MEEIA normalization shall reach forward as far as the effective date of new rates in that rate case.

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ISSUED BY	<u>Michael Moehn</u>	President	<u>St. Louis, Missouri</u>
	NAME OF OFFICER	TITLE	ADDRESS

UNION ELECTRIC COMPANY

ELECTRIC SERVICE

MO.P.S.C. SCHEDULE NO. 6Original SHEET NO. 91.9

CANCELLING MO.P.S.C. SCHEDULE NO. _____

SHEET NO. _____

APPLYING TO MISSOURI SERVICE AREARIDER EEICENERGY EFFICIENCY INVESTMENT CHARGE (Cont'd.)For MEEIA Cycle 2 PlanEO DETERMINATION

EO shall be calculated using the matrix below. EO will not go below zero dollars (\$0). The EO at 100% is \$27,471,935. Before adjustments reflecting TD EM&V including NTG, the EO cannot go above \$38,783,516. The EO including adjustments reflecting TD EM&V including NTG cannot go above \$53,783,516. The cap is based on current program levels. If Commission approved new programs are added in years 2017 and 2018, the Company may seek Commission approval to have the targets and the cap of the EO matrix scale adjusted. EO shall be adjusted for the difference, with carrying cost at the Company's monthly Allowance for Funds Used During Construction (AFUDC) rate compounded semi-annually, between TD billed and what TD billed would have been if:

- (1) The ME used in the calculation were the normalized savings for each measure at customer meter per measure determined through EM&V ex-post gross analysis for each program year, and
- (2) The NTGF used in the calculation was the net-to-gross values determined through EM&V, except that if the NTGF value determined through EM&V is less than 0.80, the recalculation shall use 0.80 and if the NTG value determined through EM&V is greater than 1.0, the recalculation shall use 1.0.

EARNINGS OPPORTUNITY MATRIX

Performance Metric	Ameren Missouri						
	Payout Rate	Payout Unit	% of Target EO	100% payout	Target @ 100%	Cap/100% Multiplier	Cap
Home Energy Report criteria will be effective, prudent spend of budget	n/a		7.28%	\$ 2,000,000			\$ 2,000,000
EE MWh (Excl. Home Energy Report, TStat & UMF): criteria will be the cumulative of the 1st yr incremental MWh during the 3 year plan	\$ 7.50	\$/MWh	14.09%	\$ 3,871,935	516,258	130%	\$ 5,033,516
EE Coincident MW (Excl. Home Energy Report, TStat & UMF): criteria will be cumulative of the 2023 MW reduction, coincident with system peak	\$141,428.57	\$/MW	72.07%	\$ 19,800,000	140	150%	\$ 29,700,000
Number of Learning Thermostats Installed	\$ 30.62	\$/Unit	1.82%	\$ 500,000	16,331	150%	\$ 750,000
Low Income Multi-Family (UMF): criteria will be effective, prudent spend of budget	n/a		4.73%	\$ 1,300,000			\$ 1,300,000
				\$ 27,471,935			\$ 38,783,516
Total Cap Including TD Adjustments							\$ 53,783,516

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NAME OF OFFICERPresident
TITLESt. Louis, Missouri
ADDRESS

UNION ELECTRIC COMPANY

ELECTRIC SERVICE

MO.P.S.C. SCHEDULE NO. 6Original SHEET NO. 91.10

CANCELLING MO.P.S.C. SCHEDULE NO. _____

SHEET NO. _____

APPLYING TO MISSOURI SERVICE AREARIDER EEICENERGY EFFICIENCY INVESTMENT CHARGE (Cont'd.)For MEEIA Cycle 2 PlanFILING

The Company shall make a Rider EEIC filing each calendar year to be effective for the subsequent calendar year's February billing month. The Company is allowed or may be ordered by the Commission to make one other Rider EEIC filing in each calendar year with such subsequent filing to be effective beginning with either the June or October billing month. Rider EEIC filings shall be made at least sixty (60) days prior to their effective dates.

PRUDENCE REVIEWS

A prudence review shall be conducted no less frequently than at twenty-four (24) month intervals in accordance with 4 CSR 240-20.093(10). Any costs which are determined by the Commission to have been imprudently incurred or incurred in violation of the terms of this Rider EEIC shall be addressed through an adjustment in the next EEIR determination and reflected in factor OA herein.

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Service Commission
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ISSUED BY	<u>Michael Moehn</u>	<u>President</u>	<u>St. Louis, Missouri</u>
	NAME OF OFFICER	TITLE	ADDRESS

UNION ELECTRIC COMPANY

ELECTRIC SERVICE

SCHEDULE WRD-1

MO.P.S.C. SCHEDULE NO. 61st Revised SHEET NO. 91.11CANCELLING MO.P.S.C. SCHEDULE NO. 6Original SHEET NO. 91.11APPLYING TO MISSOURI SERVICE AREA**RIDER EEIC****ENERGY EFFICIENCY INVESTMENT CHARGE (Cont'd.)**

(Applicable To Determination of EEIR Beginning March 1, 2016 through the Billing Month of January 2017)

MEEIA 2013-15 EEIR Components (Applicable to MEEIA Cycle 1 Plan)

Service Class	NPC/PE (\$/kWh)	NTD/PE (\$/kWh)	NPI/PE (\$/kWh)	NOA/PE (\$/kWh)
1(M)-Residential Service	(\$0.000807)	(\$0.000248)	\$0.000000	\$0.000000
2(M)-Small General Service	(\$0.000208)	\$0.000757	\$0.000000	\$0.000000
3(M)-Large General Service	(\$0.000174)	\$0.001112	\$0.000000	\$0.000000
4(M)-Small Primary Service	(\$0.000148)	\$0.001597	\$0.000000	\$0.000000
11(M)-Large Primary Service	(\$0.000089)	\$0.001504	\$0.000000	\$0.000000
12(M)-Large Transmission Service	\$0.000000	\$0.000000	\$0.000000	\$0.000000

MEEIA 2016-18 EEIR Components (Applicable to MEEIA Cycle 2 Plan)

Service Class	NPC/PE (\$/kWh)	NTD/PE (\$/kWh)	NEO/PE (\$/kWh)	NOA/PE (\$/kWh)
1(M)-Residential Service	\$0.001902	\$0.000191	\$0.000000	\$0.000000
2(M)-Small General Service	\$0.001618	\$0.000045	\$0.000000	\$0.000000
3(M)-Large General Service	\$0.001618	\$0.000062	\$0.000000	\$0.000000
4(M)-Small Primary Service	\$0.001618	\$0.000062	\$0.000000	\$0.000000
11(M)-Large Primary Service	\$0.001618	\$0.000060	\$0.000000	\$0.000000
12(M)-Large Transmission Service	\$0.000000	\$0.000000	\$0.000000	\$0.000000

Summary EEIR Components and Total EEIR

Service Class	NPC (\$/kWh)	NTD (\$/kWh)	(NEO+NPI) (\$/kWh)	NOA (\$/kWh)	Total EEIR (\$/kWh)
1(M)-Residential Service	\$0.001095	(\$0.000057)	\$0.000000	\$0.000000	\$0.001038
2(M)-Small General Service	\$0.001410	\$0.000802	\$0.000000	\$0.000000	\$0.002212
3(M)-Large General Service	\$0.001444	\$0.001174	\$0.000000	\$0.000000	\$0.002618
4(M)-Small Primary Service	\$0.001470	\$0.001659	\$0.000000	\$0.000000	\$0.003129
11(M)-Large Primary Service	\$0.001529	\$0.001564	\$0.000000	\$0.000000	\$0.003093
12(M)-Large Transmission Service	\$0.000000	\$0.000000	\$0.000000	\$0.000000	\$0.000000

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NAME OF OFFICERPresident Missouri Public St. Louis, Missouri
TITLE Service Commission ADDRESS

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HIGHLY CONFIDENTIAL

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Ameren Missouri
Quarter Ended, 12 Months Ended and Cumulative Total Ended June 30, 2014
SURVEILLANCE MONITORING REPORT
Missouri Energy Efficiency Investment Act of 2009 (MEEIA)
Status of Demand-Side Programs and Demand-Side Programs Investment Mechanism

DSM Program Name	Start Date	Planned End Date	Actual End Date
Business - Standard	01/02/2013	12/31/2015	
Business - Custom	01/02/2013	12/31/2015	
Business - Retro-commissioning	01/02/2013	12/31/2015	
Business - New Construction	01/02/2013	12/31/2015	
Residential - Lighting	01/02/2013	12/31/2015	
Residential - Energy Efficient Products	01/02/2013	12/31/2015	
Residential - HVAC	01/02/2013	12/31/2015	
Residential - Refrigerator Recycling	01/02/2013	12/31/2015	
Residential - Home Energy Performance	03/01/2013	12/31/2015	
Residential - New Homes	01/02/2013	12/31/2015	
Residential - Low Income	01/02/2013	12/31/2015	

Category	Descriptor	Quarter Ended	12 Months Ended	Cumulative Total Ended
Total Programs' Costs (\$)	Planned	\$ 12,423,552	\$ 41,060,303	\$ 59,364,739
Total Programs' Costs (\$)	Actual	\$ 11,700,349	\$ 41,630,147	\$ 54,813,543
Total Programs' Costs (\$)	Variance	\$ 723,203	\$ (569,844)	\$ 4,551,196
Total Programs' Costs (\$)	Billed	\$ 7,578,193	\$ 44,805,650	\$ 66,240,949
Total Programs' Costs (\$)	Actual	\$ 11,700,349	\$ 41,630,147	\$ 54,813,543
Total Programs' Costs (\$)	Variance	\$ (4,122,156)	\$ 3,175,503	\$ 11,427,406
Total Programs' Costs (\$)	Interest	\$ (10,089)	\$ (49,103)	\$ (71,618)
Energy Savings (MWh)	Planned	67,844	284,281	373,368
Energy Savings (MWh)	Actual	93,790	407,782	507,121
Energy Savings (MWh)	Variance	(25,946)	(123,501)	(133,753)
Demand Savings (MW)	Planned	17.26	52.98	64.93
Demand Savings (MW)	Actual	11.53	44.88	53.76
Demand Savings (MW)	Variance	5.73	8.10	11.17
Net Shared Benefits (\$)	Planned	\$ 44,080,329	\$ 128,469,277	\$ 183,533,984
Net Shared Benefits (\$)	Estimated	\$ 44,581,713	\$ 183,485,007	\$ 218,121,738
Net Shared Benefits (\$)	Variance	\$ (501,384)	\$ (55,015,730)	\$ (34,587,754)
Company TD-NSB Share (\$)	Planned	\$ 11,612,619	\$ 33,844,230	\$ 48,350,597
Company TD-NSB Share (\$)	Disincentive	\$ 11,744,705	\$ 48,337,695	\$ 57,462,471
Company TD-NSB Share (\$)	Variance	\$ (132,086)	\$ (14,493,465)	\$ (9,111,874)
90 % Company TD-NSB Share (\$)	Billed	\$ 10,364,925	\$ 37,858,984	\$ 50,605,338
Company TD-NSB Share (\$)	Disincentive	\$ 11,744,705	\$ 48,337,695	\$ 57,462,471
Company TD-NSB Share (\$)	Variance	\$ (1,379,780)	\$ (10,478,711)	\$ (6,857,133)
Company TD-NSB Share (\$)	Interest	\$ 83,352	\$ 211,716	\$ 70,634

Notes for Descriptors:

1. Planned = amounts which are consistent with and included in the Company's Commission-approved MEEIA Plan
2. Billed = amounts billed to customers for recovery of Programs' Costs or 90% of Company TD-NSB Share
3. Actual = amounts (prior to evaluation, measurement and verification (EM&V)) used to determine Estimated Net Benefits
4. Estimated = net shared benefits amounts calculated monthly using DSMore model and prior to EM&V
5. Disincentive = Commission-approved percentage of Estimated Net Shared Benefits amounts
6. Variance = Planned less Actual, Billed less Actual, Planned less Estimated, Planned less Calculated, or Billed less Calculated
7. Interest = amounts of interest (at Company's monthly short-term borrowing interest rate) applied monthly to the cumulative Variance for the Category

Ameren Missouri
Quarter Ended, 12 Months Ended and Cumulative Total Ended December 31, 2015
SURVEILLANCE MONITORING REPORT
Missouri Energy Efficiency Investment Act of 2009 (MEEIA)
Status of Demand-Side Programs and Demand-Side Programs Investment Mechanism

DSM Program Name	Start Date	Planned End Date	Actual End Date
Business - Standard	1/2/2013	12/31/2015	12/31/2015
Business - Custom	1/2/2013	12/31/2015	12/31/2015
Business - Retro-commissioning	1/2/2013	12/31/2015	12/31/2015
Business - New Construction	1/2/2013	12/31/2015	12/31/2015
Residential - Lighting	1/2/2013	12/31/2015	12/31/2015
Residential - Energy Efficient Products	1/2/2013	12/31/2015	12/31/2015
Residential - HVAC	1/2/2013	12/31/2015	12/31/2015
Residential - Refrigerator Recycling	1/2/2013	12/31/2015	12/31/2015
Residential - Home Energy Performance	3/1/2013	12/31/2015	12/31/2015
Residential - New Homes	1/2/2013	12/31/2015	12/31/2014
Residential - Low Income	1/2/2013	12/31/2015	12/31/2015

Category	Descriptor	Quarter Ended	12 Months Ended	Cumulative Total Ended
Total Programs' Costs (\$)	Planned	\$ 27,461,931	\$ 68,866,895	\$ 154,426,291
Total Programs' Costs (\$)	Actual	\$ 24,324,464	\$ 57,966,586	\$ 133,917,078
Total Programs' Costs (\$)	Variance	\$ 3,137,467	\$ 10,900,309	\$ 20,509,213
Total Programs' Costs (\$)	Billed	\$ 12,891,976	\$ 56,775,247	\$ 140,279,417
Total Programs' Costs (\$)	Actual	\$ 24,324,464	\$ 57,966,586	\$ 133,917,078
Total Programs' Costs (\$)	Variance	\$ (11,432,488)	\$ (1,191,339)	\$ 6,362,340
Total Programs' Costs (\$)	Interest	\$ (17,550)	\$ (61,191)	\$ (128,950)
Energy Savings (MWh)	Planned	87,509	307,206	821,303
Energy Savings (MWh)	Actual	213,328	457,347	1,156,630
Energy Savings (MWh)	Variance	(125,819)	(150,142)	(335,327)
Demand Savings (MW)	Planned	20.67	79.97	174.82
Demand Savings (MW)	Actual	26.70	64.29	143.63
Demand Savings (MW)	Variance	(6.03)	15.68	31.19
Net Shared Benefits (\$)	Planned	\$ 65,084,066	\$ 239,405,767	\$ 511,415,793
Net Shared Benefits (\$)	Estimated	\$ 132,009,419	\$ 280,236,010	\$ 606,154,220
Net Shared Benefits (\$)	Variance	\$ (66,925,353)	\$ (40,830,243)	\$ (94,738,427)
Company TD-NSB Share (\$)	Planned	\$ 17,143,143	\$ 63,059,479	\$ 134,706,920
Company TD-NSB Share (\$)	Disincentive	\$ 34,771,281	\$ 73,814,165	\$ 159,661,022
Company TD-NSB Share (\$)	Variance	\$ (17,628,138)	\$ (10,754,686)	\$ (24,954,102)
90 % Company TD-NSB Share (\$)	Billed	\$ 13,910,475	\$ 63,687,673	\$ 137,925,387
Company TD-NSB Share (\$)	Disincentive	\$ 34,771,281	\$ 73,814,165	\$ 159,661,022
Company TD-NSB Share (\$)	Variance	\$ (20,860,806)	\$ (10,126,492)	\$ (21,735,635)
Company TD-NSB Share (\$)	Interest	\$ 44,629	\$ 103,244	\$ 73,108

Notes for Descriptors:

1. Planned = amounts which are consistent with and included in the Company's Commission-approved MEEIA Plan
2. Billed = amounts billed to customers for recovery of Programs' Costs or 90% of Company TD-NSB Share
3. Actual = amounts (prior to evaluation, measurement and verification (EM&V)) used to determine Calculated Net Shared Benefits
4. Estimated = net shared benefits amounts calculated monthly using DSMore model and prior to EM&V
5. Disincentive = Commission-approved percentage of Estimated Net Shared Benefits amounts
6. Variance = Planned less Actual, Billed less Actual, Planned less Estimated, Planned less Calculated, or Billed less Calculated
7. Interest = amounts of interest (Company FAC rates for program cost variance and TD-NSB variance) applied monthly to the cumulative Variance for the Category. The AFUDC rate for TD-NSB variance was used from program start date through January 2014.

Additional Notes:

The sharing percentage truncation adjustment on the Company TD-NSB Share Disincentive was made in the Company's general ledger in November 2014.