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MEEIA Cycle 1 (2013-  
2015)  
Witness: William R. Davis  
Type of Exhibit: Direct Testimony  
Sponsoring Party: Union Electric Company  
File No.: EO-2012-0142  
Date Testimony Prepared: October 4, 2016

**MISSOURI PUBLIC SERVICE COMMISSION**

**File No. EO-2012-0142**

**(MEEIA Cycle 1 Performance Incentive)**

**DIRECT TESTIMONY**

**OF**

**WILLIAM R. DAVIS**

**ON**

**BEHALF OF**

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

**St. Louis, Missouri  
October 2016**

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**DIRECT TESTIMONY**

**OF**

**WILLIAM R. DAVIS**

**FILE NO. EO-2012-0142**

1     **I. INTRODUCTION**

2           **Q. Please state your name and business address.**

3           A. My name is William (“Bill”) R. Davis. My business address is One  
4 Ameren Plaza, 1901 Chouteau Avenue, St. Louis, Missouri 63103.

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

6           A. I am the Director of Energy Efficiency and Renewables for Union Electric  
7 Company d/b/a Ameren Missouri (“Ameren Missouri” or “Company”).

8           **Q. Please describe your educational background and employment**  
9 **history.**

10          A. I received a Bachelor of Science in Economics from Illinois State  
11 University in 2002. I subsequently received a Master of Science in Economics with an  
12 emphasis in regulatory economics from Illinois State University in 2003. I completed  
13 several internships during my college career, including an internship with Illinois Power  
14 Company. Upon completion of my master’s degree, I began working full-time for  
15 Caterpillar, Inc., at its corporate headquarters in Peoria, Illinois, as an Advanced  
16 Quantitative Analyst in the Business Intelligence Group, with the primary duties of  
17 performing economic and sales analyses.

18          In May 2005, I joined Ameren Services Company as a Load Research and  
19 Forecasting Specialist in the Corporate Planning Department. My duties included

1 electricity and natural gas sales forecasting, load research, weather normalization, and  
2 various other sales analyses. In September 2007, I became a Senior Load Research  
3 Specialist and then moved to the Resource Planning Group in March of 2009. In October  
4 2011, I became a Senior Corporate Planning Analyst. In that position, I was responsible  
5 for Ameren Missouri's 2011 Integrated Resource Plan and the 2012 Missouri Energy  
6 Efficiency Investment Act ("MEEIA") filing. In March 2013, I was promoted to  
7 Manager of Economic Analysis and Pricing, where I was responsible for the Company's  
8 rate design, class cost of service, and various other regulatory matters. I was promoted to  
9 my current position on September 1, 2016, where I am responsible for energy efficiency  
10 implementation, planning, and evaluation.

11 **II. PURPOSE AND SUMMARY OF TESTIMONY**

12 **Q. What is the purpose of your direct testimony in this proceeding?**

13 A. The purpose of my testimony is to support the approval of the Company's  
14 performance incentive associated with its first three-year plan approved under MEEIA. I  
15 will refer to this first three-year plan, which consisted of energy efficiency programs  
16 operated from 2013 through the end of 2015, as "MEEIA Cycle 1."

17 **Q. Please summarize your testimony.**

18 A. Ameren Missouri has earned a performance incentive of approximately  
19 \$29 million.<sup>1</sup> This figure has been calculated in accordance with the original MEEIA  
20 Cycle 1 Plan that was approved by the Commission in 2012 and as that Plan was later  
21 modified by the Commission in 2015. The remainder of my testimony is organized as  
22 follows:

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<sup>1</sup> As discussed later in my testimony, the precise figure is \$29,065,869.38.

- 1                    III.    The Basis for the Performance Incentive
- 2                    IV.    The Calculation of the Performance Incentive
- 3                    A.    Energy Savings
- 4                    B.    Net Benefits
- 5                    C.    Sharing Percentage
- 6                    D.    Resulting Performance Incentive
- 7                    V.    OPC's Objection

8    **III.    THE BASIS FOR THE PERFORMANCE INCENTIVE**

9                    **Q.    Please explain the status of Ameren Missouri's MEEIA programs and**  
10 **how it relates to this proceeding.**

11                  A.    In 2012, Ameren Missouri was the first public utility to gain Commission  
12 approval of an energy efficiency program plan under MEEIA. As noted, the programs  
13 approved as part of the MEEIA Cycle 1 Plan were in effect from January 2013 through  
14 December 2015. Subsequently, in February 2016, Ameren Missouri gained approval of a  
15 second three-year energy efficiency plan under MEEIA, consisting of MEEIA programs  
16 which began in March 2016 and will end in February 2019. As provided for in the  
17 MEEIA Cycle 1 Plan, now that MEEIA Cycle 1 is complete, it is time to assess the  
18 performance of the MEEIA Cycle 1 programs and to determine the performance  
19 incentive Ameren Missouri has earned under the terms approved by the Commission.

20                  **Q.    You have mentioned the Commission-approved Plan and a 2015**  
21 **modification of the Plan, also approved by the Commission. Please outline the Plan**  
22 **terms that govern the performance incentive.**

1           A.       The original MEEIA Cycle 1 Plan was reflected in the *2013-2015 Energy*  
2 *Efficiency Plan* which was filed with the application that initiated this docket. The  
3 original Plan terms were set forth in a detailed report, referred to below as the "MEEIA  
4 Report." The Plan terms were not approved precisely as filed, but in some respects were  
5 modified by a *Unanimous Stipulation and Agreement Resolving Ameren Missouri's*  
6 *MEEIA Filing* (the "2012 Stipulation"),<sup>2</sup> which was approved by the Commission. The  
7 Plan was then modified further by a *Non-Unanimous Stipulation and Agreement Settling*  
8 *the Program Year 2013 Change Requests* (the "2015 Stipulation"),<sup>3</sup> which was also  
9 approved by the Commission. In other words, the MEEIA Report, the 2012 Stipulation,  
10 and the 2015 Stipulation have to be read together to understand the terms of the approved  
11 Plan in its entirety, and to understand how the original Plan has, and has not, been  
12 modified by the 2012 and 2015 Stipulations.

13           One of the components of the Plan is a demand-side investment mechanism  
14 ("DSIM"), which itself consists of various components, including a performance  
15 incentive, which under the Commission's MEEIA rules is referred to as the "utility  
16 incentive component."<sup>4</sup> More specifically, the 2012 Stipulation provides as follows:<sup>5</sup>

17                     For purposes of this Stipulation, Ameren Missouri's three-year  
18                     demand side program plan (the "Plan") consists of 11 demand-side

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<sup>2</sup> The parties to the 2012 Stipulation were the Company, the Commission's 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. The Commission approved the 2012 Stipulation in an order issued August 1, 2012, and ordered all of the parties to comply with it.

<sup>3</sup> The parties to the 2015 Stipulation were the Company, the Commission's Staff, and the Office of the Public Counsel. No party objected to the 2012 Stipulation, which means that it is treated as a unanimous stipulation under 4 CSR 240-2.115. The Commission approved the 2015 Stipulation in an order issued February 25, 2015, and ordered all of the parties to comply with it.

<sup>4</sup> See 4 CSR 240-240-3.163(1)(F), as well as (1)(J) and (2)(E). In this testimony, I use the phrases "performance incentive" and "utility incentive component" interchangeably.

<sup>5</sup> See 2012 Stipulation, ¶¶ 4 and 5.

1 programs ("MEEIA Programs") described in Ameren Missouri's January  
2 20, 2012 MEEIA Report, the demand-side programs investment  
3 mechanism ("DSIM") described in the MEEIA Report, modified to reflect  
4 the terms and conditions herein, and the Technical Resource Manual  
5 ("TRM") attached as Appendix A to the surrebuttal testimony of Ameren  
6 Missouri witness Richard A. Voytas.

7 5. DSIM. The Signatories agree that the Commission should  
8 approve the DSIM described in the MEEIA Report, after being modified  
9 as set forth in this paragraph, paragraph 6 and paragraph 7, including all of  
10 their subparts.

11 In the 2012 Stipulation, both Subparagraph 5.b.ii ("NSB Relating to the  
12 Performance Incentive") and Appendix B made certain modifications to the terms of the  
13 DSIM originally reflected in the MEEIA Report. The 2015 Stipulation made a further  
14 change in its paragraph 12. As I noted previously, these three documents must be read  
15 together to get the full scope of the DSIM terms, as well as its performance incentive  
16 component.

#### 17 **IV. THE CALCULATION OF THE PERFORMANCE INCENTIVE**

18 **Q. What is the general approach to calculating the performance**  
19 **incentive component of the DSIM?**

20 A. The performance incentive is a function of two main components. The  
21 first component is based on how much energy the Company has saved compared to its  
22 energy savings targets. The second component is based on a share of the net benefits  
23 created from the Company's programs. Once we determine how the Company performed  
24 in meeting or exceeding its target, we know what sharing percentage Ameren Missouri  
25 has earned. Once we know that percentage, we can multiply it by the net benefits to  
26 determine the resulting performance incentive. I describe each of these steps in more  
27 detail below.

1                   **A.     Energy Savings**

2                   **Q.     How is the performance determined regarding how much energy the**  
3 **Company's programs have saved as compared to the savings goal?**

4                   A.     First, you look at the targeted energy savings. The Company's original  
5 target for energy savings is 793,100 MWh<sup>6</sup> but the final energy savings target is to be  
6 opt-out adjusted.<sup>7</sup> The opt-out adjustment simply recognizes the fact that when the  
7 original savings target was set there was limited information available regarding how  
8 many large customers would choose to be excluded from the Company's energy  
9 efficiency programs, as the MEEIA statute allows. While the original savings target  
10 assumed that 20% of eligible customers would opt-out, the terms of the approved DSIM  
11 provided that the final savings target would reflect the actual amount of opt-out  
12 customers. The tables below show the calculation and the determination of the final  
13 savings target which, after accounting for the opt-outs, is 821,303 MWh.

<b>Filed MEEIA Targets (MWh) based on assumed 20% Opt Out, January 2012</b>				
	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>3-Year Cum. Target</b>
<b>RES</b>	165,275	168,237	171,957	505,469
<b>BUS</b>	75,122	87,208	125,303	287,633
<b>Total</b>	240,397	255,445	297,260	793,102

14                   Revised Annual Target = (Annual 20% MWh Target)/(1 - 0.2) \* (1 - Actual Annual Opt-Out %)

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<sup>6</sup> 2012 Stipulation at ¶ 5.b.ii and Appendix B.

<sup>7</sup> Id.



1

<b>Adjusted MEEIA Target as of January 2016</b>				
	<b>2013 (Actual)</b>	<b>2014 (Actual)</b>	<b>2015 (Actual)</b>	<b>3-Year Cum. Target (Actual)</b>
<b>RES</b>	165,275	168,237	171,957	505,469
<b>BUS</b>	85,517	95,067	135,249	315,834
<b>Annual Opt Out</b>	8.93%	12.79%	13.65%	
<b>Total</b>	<b>250,792</b>	<b>263,305</b>	<b>307,206</b>	<b>821,303</b>

2           **Q.     With the final energy savings target determined, what is the next step**  
3 **for calculating the performance incentive?**

4           A.     The next step is determining the energy savings achieved by the Company  
5 from January 2013 through December 2015. While this may sound simple, the process  
6 requires several steps, including a determination of the net-to-gross ("NTG") ratios for  
7 the various programs. An NTG ratio is, in short, a means by which to account for the  
8 difference between net and gross savings and is intended help reflect the amount of  
9 energy efficiency adoption that is caused by the Company's energy efficiency programs.

10           As originally-approved, the DSIM called for the achieved energy savings to be  
11 based on evaluations from the Company's independent third-party evaluation,  
12 measurement and verification ("EM&V") evaluator, including the NTG ratios determined  
13 by the evaluator. During the discussions regarding the 2013 EM&V, however, it became  
14 apparent that there was still significant uncertainty regarding the NTG, so the parties  
15 modified this approach through the terms of the 2015 Stipulation by:

- 16           • reflecting agreed-upon energy savings for the 2013 program year; and

- 1                   • modifying the DSIM's terms (and in particular, the terms of the utility  
2                   incentive component of the DSIM) regarding how the energy savings  
3                   for the 2014 and 2015 program years would be determined.

4                   The 2015 Stipulation resolved the NTG ratio issue for the purposes of calculating  
5                   the performance incentive in two ways. First, the 2015 Stipulation set the 2013 program  
6                   year portfolio-wide MWh of savings and net shared benefits to agreed amounts; and  
7                   second, it established a "band" within which NTG ratio averages would be defaulted to a  
8                   set amount, as provided for by its provisions reproduced below:

9                   11. Resolution of PY 2013 dispute:

10                   a. The Signatories agree to portfolio-wide mega-watt hours savings of  
11                   347,360.

12                   b. The Signatories agree to net shared benefits [for the 2013 program  
13                   year] of \$123,646,681.

14                   [12.(a)] In each individual year (PY 2014 and PY 2015), the final  
15                   [Company] evaluator and [Commission] auditor portfolio-wide energy  
16                   savings Net-To-Gross ratios ("NTG") shall be averaged for the  
17                   respective program year. If the portfolio-wide averaged energy  
18                   savings NTG is between 0.9 and 1.1, then the agreed to NTG will be  
19                   deemed to 1.0, and the portfolio-wide program year net annual energy  
20                   savings and annual net shared benefits will be calculate consistent with  
21                   a portfolio-wide NTG of 1.0 for the evaluators' program year final  
22                   EM&V reports....

23                   Subsequently, the average of the Company evaluator and Commission auditor NTG ratios  
24                   for each of the 2014 and 2015 program years fell within the 0.9-1.1 band defined above.

25                   Accordingly, the modified utility incentive component of the DSIM required that the  
26                   NTG ratios were set to 1.0 for those program years. The table below sets out the  
27                   Company's achieved energy savings under the approved DSIM:

	2013 (Stipulated)	2014 (NTG Adjusted per 2015 Stipulation)	2015 NTG (Adjusted per 2015 Stipulation)	3-Year Cum.
MWh Savings	<b>347,360</b>	<b>360,445</b>	<b>460,562</b>	<b>1,168,367</b>

1                    **B.     Net Benefits**

2                    **Q.     With the Company’s achieved energy savings determined, what is the**  
3 **next step in the process to determine the performance incentive?**

4                    A.     The next step is to determine the net benefits associated with those  
5 achieved energy savings. To calculate those savings, each of the individual end-use  
6 energy efficiency measures are modeled in the software tool DSMore, which is the tool  
7 used by the EM&V contractors to assess the economics of the MEEIA programs. In  
8 short, the net benefits for the performance incentive are equal to the net present value of  
9 the lifetime benefits (calculated using DSMore) minus the net present value of utility  
10 program costs. The table below summarizes the calculation of net benefits for purposes  
11 of the performance incentive. A more detailed report of the net benefits is attached as  
12 Schedule WRD-1.

	2013 (Stipulated)	2014 (NTG Adjusted per 2015 Stipulation)	2015 NTG (Adjusted per 2015 Stipulation)	3-Year Cum.
MWh Savings	<b>347,360</b>	<b>360,445</b>	<b>460,562</b>	<b>1,168,367</b>
Total Benefits (2013\$)	\$158,079,084	\$195,924,278	\$225,584,885	\$579,588,246
Program Costs (2013\$)	\$34,432,402	\$38,820,093	\$52,030,962	\$125,238,458
Net Benefits (2013\$)	<b>\$123,646,682<sup>8</sup></b>	<b>\$157,104,184</b>	<b>\$173,553,922</b>	<b>\$454,304,788</b>

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<sup>8</sup> As noted above, this level of net benefits for the 2013 program year is established by the 2015 Stipulation.

1           **Q.     Are these net benefit sums final?**

2           A.     Yes, with one caveat. The net benefit sums are based upon the energy  
3 savings and net benefits determined by the evaluators and confirmed by the  
4 Commission's auditor, calculated according to the terms of the Commission-approved  
5 DSIM (per the MEEIA Report, as modified by the 2012 and 2015 Stipulations).  
6 However, these net benefit sums are subject to change based on only one factor--the  
7 outcome of a pending appeal. If the Company were to prevail on its appeal of the  
8 Commission's order granting summary determination in favor of the Staff in File No. EC-  
9 2015-0315, the net benefit sums for the 2014 and 2015 program years will change.

10           Because the appeal is still pending, we calculated the net benefits based on the  
11 Commission's currently effective order in that case. If the Court rules in the Company's  
12 favor, there will be additional net benefits and, as a result, an additional performance  
13 incentive sum will be due. The Company intends to include any additional performance  
14 incentive in the first Energy Efficiency Investment Charge Tariff ("Rider EEIC")  
15 adjustment filing made after the case is fully resolved, i.e., when a final court decision  
16 takes effect and any required remand to the Commission and subsequent orders are  
17 issued.

18                   **C.     Sharing Percentage**

19           **Q.     With the net benefits calculated, what is the next step to determine the**  
20 **performance incentive?**

21           A.     The next step is to determine the Company's share of the net benefits; that  
22 is, the amount of the calculated net benefits the Company retains as its performance  
23 incentive. This amount is set by the matrix contained in Appendix B to the 2012

1 Stipulation, and has been reproduced in Rider EEIC. At this point, we compare the  
2 achieved energy savings to the target energy savings and then use that result to look up  
3 the allowed sharing percent. From the information regarding target and actual energy  
4 savings laid out in the tables appearing earlier in my testimony, we know that the  
5 Company achieved 142% of its energy savings target ( $1,168,367/821,303 \times 100 = 142\%$ ).<sup>9</sup>  
6 The section below from Rider EEIC shows the sharing percentages. Since the sharing  
7 percentage for performance at 130% of target or above is 6.19%, the sharing percentage  
8 with performance at 142% is 6.19% of the net benefits.

"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&U-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&U-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.

9

#### 10 **D. Resulting Performance Incentive**

11 **Q. With the net benefits and sharing percentage determined, what is the**  
12 **next step in determining the performance incentive?**

13 **A.** The next step is also the final step: determining the dollar amount of the  
14 performance incentive. Even at this step, there are important aspects of the calculation  
15 that must be considered. For instance, when the sharing percentage (6.19%) is multiplied  
16 by the net benefits (\$454 million) the result of that calculation is still expressed as a net

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<sup>9</sup> As noted in the tables appearing previously in testimony, 1,168,367 is the actual 3-year cumulative MWh savings, while 821,303 is the 3-year cumulative target MWh savings.

1 present value in 2013 dollars. Again, the 2012 Stipulation provides exact guidance on  
2 how to determine the nominal performance incentive, which is then allocated between  
3 residential, business, and low-income classes as shown in the table below:

Net Benefit (PV, 2013\$)	\$454,304,788		
Sharing Percent	6.19%		
Initial Sharing Amount (PV)	\$28,121,466.41		
Class	RES	BUS	Low Income
MWh (3-Year Cum.)	619,540	532,810	16,017
MWh Allocation	53.03%	45.60%	1.37%
Before-Tax Rev. Req. (PV)	\$14,911,727.52	\$12,824,225.22	\$385,513.67
Revenue Requirement* (2-Year Annuity)	\$7,706,253.97	\$6,627,450.53	\$199,230.19

=\$14,532,934.69†

4 †The total amount to be recovered over ~2 years (i.e. \$14,532,934.69 + \$14,532,934.69 = \$29,065,869.38)

5 **Q. How is the performance incentive incorporated into rates?**

6 A. Rider EEIC dictates the manner in which the performance incentive will  
7 be collected from customers. Basically, it will be collected over 23 months. The  
8 Company's next Rider EEIC filing will be in November 2016. Under its terms, the  
9 November 2016 Rider EEIC adjustment will include \$15,164,801.42 of the performance  
10 incentive, and the remaining \$13,901,067.96 will be included in the Company's  
11 November 2017 Rider EEIC filing.<sup>10</sup>

12 **V. OPC'S OBJECTION**

13 **Q. On September 2, 2016, the Company and the Staff filed a *Non-***  
14 ***Unanimous Stipulation and Agreement Addressing Ameren Missouri's Performance***  
15 ***Incentive Award*. Please explain this stipulation.**

<sup>10</sup> If the Company prevails on its appeal of the Commission's order in File No. EC-2015-0315, the \$13,901,067.96 figure will be increased to account for the court's decision.

1           A.     As outlined earlier in my testimony, the original Plan, as modified by the  
2 2012 and 2015 Stipulations, prescribes the terms of the approved DSIM, including the  
3 Commission-approved performance incentive. Once the Cycle 1 programs were  
4 completed, all that remained was to perform the calculations required by the DSIM, using  
5 the data developed as required by the DSIM. The Company and Staff worked together to  
6 perform and verify those calculations, and reached complete agreement on them,  
7 including agreement that the calculations and the performance incentive (\$29,065,869.38)  
8 are in compliance with the Commission-approved DSIM. The stipulation filed last  
9 month reflects that agreement.

10           **Q.     The Office of the Public Counsel ("OPC") has objected to the**  
11 **foregoing stipulation. Do you have any comments on OPC's objections?**

12           A.     OPC filed a short objection, generally citing the MEEIA statute and two of  
13 the four MEEIA rules. OPC also generally cited to the 2012 Stipulation, the  
14 Commission's order approving the 2012 Stipulation, a December 2012 stipulation  
15 (making a minor change regarding the presentation of charges on customers' bills), the  
16 Commission's order approving the December 2012 stipulation, and the 2015 Stipulation  
17 and the Commission's order approving it. However, OPC did not cite to any specific rule  
18 or directive in any of these documents to support why it believes the performance  
19 incentive "is calculated incorrectly." As I noted earlier, the Company was very careful in  
20 making sure all of the data came from the appropriate sources and that all of the  
21 Commission-approved guidance was followed, and worked closely with Staff to ensure it  
22 has done everything correctly. OPC's suggestion that the performance incentive was  
23 somehow not calculated in accordance with the Commission-approved DSIM is simply

Direct Testimony of  
William R. Davis

1 mistaken. Presumably OPC will explain the basis for its objection in its own direct  
2 testimony on the performance incentive amount, which it is required to file concurrently  
3 with the Company's filing of this testimony, and I will address whatever OPC's bases are  
4 when I file my rebuttal testimony on October 12, 2016.

5 **Q. Does this conclude your direct testimony?**

6 **A. Yes, it does.**



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

In the Matter of Union Electric Company d/b/a Ameren )  
Missouri's Filing to Implement Regulatory Changes ) File No. EO-2012-0142  
Furtherance of Energy Efficiency as allowed by MEEIA. )

**AFFIDAVIT OF WILLIAM R. DAVIS**

STATE OF MISSOURI )  
 ) ss  
CITY OF ST. LOUIS )

William R. Davis, being first duly sworn on his oath, states:

1. My name is William R. Davis. I am a Director of Energy Efficiency and Renewables for Union Electric Company d/b/a Ameren Missouri ("Ameren Missouri" or "Company").

2. Attached hereto and made a part hereof for all purposes is my Direct Testimony on behalf of Union Electric Company, d/b/a AmerenUE, consisting of 14 pages (and Schedules 1 through n/a if any), all of which have been prepared in written form for introduction into evidence in the above-referenced docket.

2. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded are true and correct.

*William R. Davis*

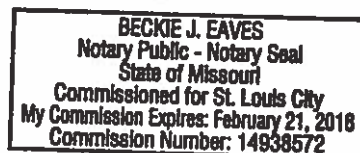
William R. Davis

Subscribed and sworn to before me this 4<sup>th</sup> day of October, 2016.

*Beckie J. Eaves*

Notary Public

My commission expires: 2-21-18



2014 Net-to-Gross Adjustment

Evaluators' EM&V Final Reports							Adjusted to Program NTG=1						
Program	Energy Savings and Net-To-Gross						Utility Benefits and Costs			Performance Results			
	Table	MWh Ex-Ante	MWh Ex-Post Gross	Realization Rate	MWh Net Savings	NTG	Table	2013\$ Benefits	2013\$ Costs	2013\$ Net Benefits	2013\$ Benefits	2013\$ Net Benefits	MWh Net Savings
		<i>x</i>	<i>a</i>	$r = a/x$	<i>b</i>	$c = b/a$		<i>d</i>	<i>e</i>	$f = d - e$	<i>g</i>	$h = g - e$	<i>a</i>
Appliance Recycling	1	12,932	8,850	0.684	6,281	0.710	4	\$2,927,005	\$ 1,356,441	\$1,570,564	\$4,101,127	\$2,744,686	8,850
Low Income	1	7,484	5,077	0.678	4,863	0.958	4	\$3,571,252	\$ 3,429,879	\$141,373	\$3,713,344	\$283,465	5,077
New Construction	1	408	275	0.674	118	0.429	4	\$161,508	\$ 301,206	(\$139,698)	\$376,476	\$75,270	275
HVAC	1	39,777	36,004	0.905	34,343	0.954	4	\$30,799,614	\$ 7,748,069	\$23,051,545	\$32,272,798	\$24,524,729	36,004
Lighting	1	144,913	156,842	1.082	155,780	0.993	4	\$46,392,750	\$ 8,924,334	\$37,468,416	\$46,824,931	\$37,900,597	156,842
Home Energy Analysis	1	701	442	0.631	375	0.848	4	\$211,512	\$ 310,250	(\$98,738)	\$248,838	(\$61,412)	442
Efficient Products	1	11,849	6,697	0.565	6,089	0.909	4	\$3,618,024	\$ 1,737,227	\$1,880,797	\$3,984,322	\$2,247,095	6,697
<b>PY14 Total Residential</b>	<b>1</b>	<b>218,064</b>	<b>214,187</b>	<b>0.982</b>	<b>207,849</b>	<b>0.970</b>	<b>4</b>	<b>\$87,681,665</b>	<b>\$ 23,807,406</b>	<b>\$63,874,259</b>	<b>\$91,521,836</b>	<b>\$67,714,430</b>	<b>214,187</b>
Custom	1-2	80,380	83,161	1.035	76,494	0.920	F-5,9	\$57,280,624	\$ 7,698,197	\$49,582,427	\$63,273,931	\$55,575,734	83,161
Standard	1-2	38,590	40,071	1.038	38,408	0.958	F-5,13	\$24,850,507	\$ 4,018,966	\$20,831,541	\$25,889,729	\$21,870,763	40,071
New Construction	1-2	13,171	13,400	1.017	13,374	0.998	F-5,17	\$10,001,717	\$ 1,599,117	\$8,402,600	\$10,021,342	\$8,422,225	13,400
Retro-Comm.	1-2	11,641	9,626	0.827	9,056	0.941	F-5,21	\$4,930,974	\$ 1,696,406	\$3,234,568	\$5,217,440	\$3,521,034	9,626
<b>PY14 Total Business</b>	<b>1-2</b>	<b>143,782</b>	<b>146,258</b>	<b>1.017</b>	<b>137,332</b>	<b>0.939</b>	<b>F-5</b>	<b>\$97,063,822</b>	<b>\$ 15,012,686</b>	<b>\$82,051,136</b>	<b>\$104,402,442</b>	<b>\$89,389,756</b>	<b>146,258</b>
<b>PY14 Total Portfolio</b>		<b>361,846</b>	<b>360,445</b>	<b>0.996</b>	<b>345,181</b>	<b>0.9577</b>		<b>\$184,745,487</b>	<b>\$ 38,820,092</b>	<b>\$145,925,395</b>	<b>\$195,924,278</b>	<b>\$157,104,186</b>	<b>360,445</b>

2015 Net-to-Gross Adjustment

Evaluators' EM&V Final Reports							Adjusted to Program NTG=1						
Program	Energy Savings and Net-To-Gross						Utility Benefits and Costs			Performance Results			
	Table	MWh Ex-Ante	MWh Ex-Post Gross	Realization Rate	MWh Net Savings	NTG	Table	2013\$ Benefits	2013\$ Costs	2013\$ Net Benefits	2013\$ Benefits	2013\$ Net Benefits	MWh Net Savings
		$x$	$a$	$r = a/x$	$b$	$c = b/a$		$d$	$e$	$f = d - e$	$g$	$h = g - e$	$a$
Appliance Recycling	1	9,982	10,774	1.079	8,237	0.765	4	\$2,929,764	\$ 1,830,835	\$1,098,929	\$3,834,544	\$2,003,709	10,774
Low Income	1	4,976	5,050	1.015	4,838	0.958	4	\$2,439,379	\$ 2,777,124	(\$337,745)	\$2,546,324	(\$230,800)	5,050
New Construction - N/A	1									\$0		\$0	
HVAC	1	58,451	54,622	0.934	60,677	1.111	4	\$24,431,963	\$ 11,139,399	\$13,292,564	\$22,204,979	\$11,065,580	54,622
Lighting	1	77,539	68,326	0.881	60,830	0.890	4	\$20,457,518	\$ 5,863,386	\$14,594,132	\$23,756,925	\$17,893,539	68,326
Home Energy Analysis	1	644	385	0.598	332	0.862	4	\$147,791	\$ 199,294	(\$51,503)	\$171,253	(\$28,041)	385
Efficient Products	1	10,049	7,908	0.787	7,755	0.981	4	\$2,870,124	\$ 1,818,795	\$1,051,329	\$2,967,428	\$1,148,633	7,908
<b>PY15 Total Residential</b>		<b>161,641</b>	<b>147,065</b>	<b>0.910</b>	<b>142,669</b>	<b>0.970</b>	<b>4</b>	<b>\$53,276,539</b>	<b>\$ 23,628,833</b>	<b>\$29,647,706</b>	<b>\$55,481,453</b>	<b>\$31,852,620</b>	<b>147,065</b>
Custom	1-2	173,413	180,356	1.040	183,922	1.020	N-7	\$98,507,036	\$ 15,876,477	\$82,630,559	\$98,013,321	\$82,136,844	180,356
Standard	1-2	60,206	67,000	1.113	69,540	1.038	N-12	\$34,372,899	\$ 5,725,605	\$28,647,294	\$32,620,274	\$26,894,669	67,000
New Construction	1-2	29,665	29,192	0.984	27,884	0.955	N-17	\$18,713,713	\$ 2,595,803	\$16,117,910	\$20,072,494	\$17,476,691	29,192
Retro-Comm.	1-2	41,015	36,949	0.901	36,360	0.984	N-22	\$19,087,827	\$ 4,095,735	\$14,992,092	\$19,397,344	\$15,301,609	36,949
<b>PY15 Total Business</b>	<b>1-2</b>	<b>304,299</b>	<b>313,497</b>	<b>1.030</b>	<b>317,705</b>	<b>1.013</b>	<b>N-2</b>	<b>\$170,681,475</b>	<b>\$28,293,620</b>	<b>\$142,387,855</b>	<b>\$170,103,432</b>	<b>\$141,809,812</b>	<b>313,497</b>
<b>PY15 Total Portfolio</b>		<b>465,940</b>	<b>460,562</b>	<b>0.988</b>	<b>460,374</b>	<b>0.9996</b>		<b>\$223,958,014</b>	<b>\$ 51,922,453</b>	<b>\$172,035,561</b>	<b>\$225,584,885</b>	<b>\$173,662,432</b>	<b>460,562</b>