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Issues: MEEIA Application
Witness: Adam Bickford
Sponsoring Party: Missouri Department of
Natural Resources –
Division of Energy
Type of Exhibit: Surrebuttal Testimony
File No.: EO-2012-0142

SURREBUTTAL TESTIMONY
OF
ADAM BICKFORD
MISSOURI DEPARTMENT OF NATURAL RESOURCES
DIVISION OF ENERGY

May 4, 2012

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

UNION ELECTRIC COMPANY, d/b/a AMEREN

MEEIA Application

FILE NO. EO-2012-0142

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1 **I. Introduction**

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

3 A. My name is Adam Bickford. My business address is Missouri Department of Natural
4 Resources, Division of Energy, 1011 Riverside Drive, P.O. Box 176, Jefferson City,
5 Missouri 65102-0176.

6 **Q. Are you the same Adam Bickford who offered testimony earlier in this case?**

7 A. Yes, I am.

8 **Q. What is the purpose of your surrebuttal testimony?**

9 A. I wish to address two points raised in the rebuttal testimony offered by parties in this
10 case:

- 11 1. A response to the comments of Office of Public Counsel witness Ryan Kind's
12 and Natural Resources Defense Fund witness Phillip Mosenthal's comments
13 about Ameren's use of its proposed Technical Resource Manual (TRM) and a
14 deemed savings approach, with the modifications to the TRM recommended by
15 MDNR and GDS; and
- 16 2. A response to Office of Public Counsel witness Ryan Kind's discussion of
17 Ameren's proposed performance incentive, and a discussion of the calculation
18 of the incentive award levels.

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II. Ameren's Technical Resource Manual

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Q. What was MDNR's recommendation concerning Ameren's use of a technical resource manual (TRM) and deemed savings estimates in their verification of DSM program savings?

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A. MDNR endorsed Ameren's use of a TRM and deemed savings estimates in their DSM program planning and evaluation. We presented GDS' assessment of the equations¹ proposed by Ameren and summarized the deemed savings estimates.

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Additionally, I noted that GDS' analysis did not include assessment of the deemed savings valued for weather sensitive measures, due to issues of "unpacking" the building simulation models Ameren used to assess these measures. If GDS had access to the information used in Ameren's building simulation models, it would have completed its assessment of Ameren's deemed savings values.

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MDNR recommended multiple changes in the equations contained in Ameren's TRM, in particular, making interactive terms, in-situ terms and in service rates more explicit and correcting some errors in Ameren's equations GDS highlighted in their report. Finally, we recommended that Ameren and its DSM collaborative develop plans to empirically verify the TRM equations and deemed savings estimates as part of Ameren's upcoming impact evaluation. However, in the end, we recommended that the Commission approve Ameren's requested variances that allowed it to use the TRM

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¹ Rebuttal Testimony of Robert Fratto, File No. EO-2012-0142.

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2 **Q. Have other parties commented on GDS' TRM report in rebuttal testimony?**

3 A. Yes. The Office of Public Counsel (OPC) recommended that Ameren's proposed
4 TRM be rejected because of the issues raised in the GDS report². On the other
5 hand, NRDC witness Philip Mosenthal agreed with all of GDS' recommendations,
6 but also highlighted the need for additional analysis.³ Staff reserved comment on
7 GDS' TRM report until they had the opportunity to review MDNR's and GDS'
8 rebuttal testimony.

9 **Q. What is your response to these parties' rebuttal testimony concerning**
10 **Ameren's TRM?**

11 A. While the GDS report identified some shortcomings in Ameren's TRM, it is overall a
12 valuable tool in the energy efficiency toolbox that should be accepted and allowed
13 to be implemented on a pilot basis for this first round of DSM programs. MDNR
14 disagrees with OPC's recommendation to reject Ameren's TRM. There is an
15 opportunity to revise the equations to remedy any errors and omissions identified
16 by GDS. Additionally, we see an opportunity to work with Ameren and its DSM
17 collaborative to complete the review of Ameren's building simulation models in
18 order to verify its deemed savings values for weather sensitive measures, as well
19 as an opportunity to design a verification study that will assess the accuracy of
20 Ameren's TRM equations and deemed savings estimates. Rather than rejecting
21 Ameren's TRM due to its initial shortcomings, we see the opportunity to build on
22 Ameren's work to create a viable tool for its DSM programming.

² Rebuttal Testimony of Ryan Kind, File No. EO-2012-0142, p 23-24.

³ Rebuttal testimony of Phillip Mosenthal, File No. EO-2012-0142, p 56-57.

1 MDNR is committed to developing a statewide TRM. We recognize that
2 there will be many developments and revisions to this manual between the first
3 efforts, such as Ameren's, and the final document. We see Ameren's TRM as a
4 major innovation, one that has the potential to improve DSM planning and
5 evaluation. While Ameren's approach to its TRM may not correspond to the
6 outlines of the eventual statewide manual, it can serve as a valuable test case. In
7 considering Ameren's TRM, and its associated variances, we encourage the
8 Commission to see the potential of Ameren's TRM and authorize its use in this first
9 MEEIA DSM program cycle.

10 **III. Construction of Ameren's Performance Incentive Request**

11 **Q. Do you have any response to the rebuttal testimony of other parties on the**
12 **matter of the form of Ameren's proposed performance incentive?**

13 A. Yes. OPC rejects this level of award as excessive and instead proposes an
14 alternative value of 4.8 million dollars, based on recovery of 10 percent of program
15 costs.⁴ OPC's call to base incentive awards on program costs changes the metric
16 of the incentive from net program benefits to program budgets. OPC's approach is
17 not consistent with the MEEIA rules. The MEEIA rules contain separate definitions
18 for a "DSIM cost recovery revenue requirement" (4 CSR 240-20.094(1)(L)), a "DSIM
19 utility incentive revenue requirement" (4 CSR 240-20.094(1)(M)), and a "DSIM utility
20 lost revenue requirement" (4 CSR 240-20.094(1)(N)). This provision for different
21 elements of "revenue requirement" implies that program costs (the "DSIM cost
22 recovery revenue requirement") should be treated separately from the incentive and

⁴ Rebuttal Testimony of Ryan Kind, EO-2012-0142, p 17-22 and 29

1 lost revenue components. Throughout his testimony, Mr. Kind expresses his
2 opinion that incentives should be based on program cost, and cites multiple states
3 where program costs are used in the determination of incentive awards.⁵ The
4 MEEIA rules provide that incentive awards be based on the net benefits a DSM
5 portfolio produces, and not on the costs to implement the programs in a portfolio.
6 Basing an incentive award something other than net benefits, such as OPC calls
7 for, does not seem appropriate.

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9 **Q. Have you been provided any information in the course of the technical**
10 **conferences in this case that causes you to reconsider any of your previous**
11 **testimony concerning Ameren's proposed performance incentive?**

12 A. Yes. In my rebuttal testimony I questioned the construction of Ameren's proposed
13 performance incentive, noting that it appeared to express award levels in absolute
14 dollars rather than as a percentage of net benefits as required by 4 CSR 240-
15 20.094(1)(M).⁶ In the technical conferences and additional discussions, Ameren
16 also discussed the incentive award in terms of absolute dollars recovered, but
17 pointed out that in their MEEIA application, they presented two graphs⁷, one
18 showing an "incentive curve" expressed in dollars awarded (Figure 2.5) and one
19 showing an "incentive curve" expressed in terms of percent of net shared benefits
20 retained (Figure 2.6). Ameren is asking the Commission to approve the incentive
21 curve in Figure 2.6. Additionally, the background data in Figure 2.6⁸ shows that the
22 appropriate curve is expressed as the percentage of net benefits retained. As a

⁵ Rebuttal testimony of Ryan Kind, EO-2012-0009, p 10-13.

⁶ Rebuttal Testimony of Adam Bickford, File No. EO-2012-0142, p 23-25.

⁷ Ameren 2013-2015 Energy Efficiency Plan, Figures 2.5 and 2.6, p 28-29.

⁸ See "Analysis_FINAL_fix1-perf incentive non-cash item.xlsx" (HC), Sheet "SNB Template", Cells P40:AD120

1 result, my concerns about the units used in the incentive curve (i.e., percentage of
2 net benefits versus absolute dollars) have been resolved.

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4 **Q. Do you have other concerns about the form of Ameren’s proposed**
5 **performance incentive?**

6 A. Yes. In reviewing the data provided in Ameren’s work papers⁹, I note that the
7 amount of net benefits created for achievement levels below 100 percent of
8 Ameren’s savings target were calculated differently from the amount of net benefits
9 calculated for achievement levels above 100 percent of its savings target. The
10 award levels achieved by Ameren’s proposed incentive vary by the level of program
11 performance achieved. The basis of the award level, the percentage of net benefits
12 achieved by Ameren’s DSM portfolio, is a function of both the level of the net
13 benefits achieved and the portion of net benefits retained by the Company. The
14 original calculations overestimate the level of net benefits generated at savings
15 values between 70 percent and 100 percent of savings targets.

16 The revised calculations, which use the same equation to calculate net
17 benefits regardless of the percentage of savings targets achieved is shown in
18 Table 1. This table shows that, for savings values between 70 and 100 percent of
19 savings targets, Ameren’s original calculations overstate the net benefits.

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⁹ Ibid.

Table 1: Proposed Revised Calculation of Net Benefits Achieved

Percent of Savings Target Achieved	Ameren Calculation of Net Benefits (\$MM)	Revised Calculation of Net Benefits (\$MM)	Difference (\$MM)
70%	280.23	255.01	25.22
80%	303.58	291.44	12.14
90%	331.18	327.86	3.31
100%	364.29	364.29	0.00
110%	400.72	400.72	0.00

Source: Ameren Workpapers

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2 **Q. Is Ameren aware of your findings and proposed revised calculation?**

3 A: Yes. I discussed this issue with William Davis on April 25, 2012.

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5 **Q. Are there other issues related to the MEEIA performance incentive?**

6 A. Yes. There is an important issue relative to the assessment of Ameren’s
 7 performance incentive: the amount of money recovered when the Company
 8 achieves 100 percent of its saving target. Ameren’s performance incentive is
 9 designed to allow the Company to recover a percentage of net benefits based on
 10 verified DSM portfolio performance. Establishing the size of this award requires
 11 setting the dollar value of the net benefits realized when the DSM portfolio achieves
 12 100 percent of its forecast savings, i.e., when the portfolio reaches its savings
 13 target. Unfortunately, the rules provide no guidance of what this value should be.

14 In its MEEIA proposal, Ameren based the net benefits to be recovered as
 15 20.2 percent of the estimated cost to construct a combined cycle plant in 2029.¹⁰

16 This percentage translates into a total award of 10 million dollars annually over the

¹⁰ Ameren 2013-2015 Energy Efficiency Plan, p 28.

1 three years of the MEEIA plan. Both Staff witness John Rogers¹¹ and NRDC
2 witness Philip Mosenthal¹² agree that this is an appropriate metric, but each raises
3 questions about the actual cost of this avoided supply-side resource and the
4 likelihood that it will be constructed.

5

6 **Q. Does MDNR have a response to the rebuttal testimony of Staff and NRDC?**

7 A. The MEEIA rules do not provide any guidance on what this value should be. Rather,
8 the rules rely on the Company to propose the percentage of net shared benefits it
9 needs to recover when it meets its savings goals and the amount of money that
10 percentage represents. This is represented in the definition of the Utility Incentive
11 component of a DSIM:

12 Utility incentive component of a DSIM means the methodology approved
13 by the commission in a utility's filing for demand-side program approval to
14 allow the utility to receive a portion of annual net shared benefits
15 achieved and documented through EM&V reports;¹³
16

17 According to this portion of the rule, MDNR is inclined to accept Ameren's
18 calculation of the dollar value to be recovered when they meet their savings target.

19 However, this is an area where the Commission's decision about appropriate
20 performance incentive awards will help clarify the issue. Gaining some clarity about
21 the appropriate metric of the performance incentive structure will streamline future
22 MEEIA applications.

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¹¹ Rebuttal Testimony of John Rogers, EO-2012-0142, p 44-46.
¹² Rebuttal Testimony of Phillip Mosenthal, EO-2012-0142, p 25-28.
¹³ 4 CSR 240-20.093(1)(EE)

1 **Q. Does this conclude your testimony?**

2 A. Yes. Thank you.

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

In the Matter of the Application of Ameren)
Missouri's filing under the Missouri Energy)
Efficiency Investment Act (MEEIA))

Case No. EO-2012-0142

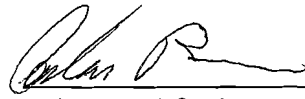
AFFIDAVIT OF ADAM BICKFORD

STATE OF MISSOURI)
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COUNTY OF COLE)

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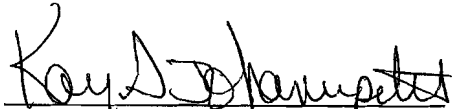
Adam Bickford, of lawful age, being duly sworn on his oath, deposes and states:

1. My name is Adam Bickford. I work in the City of Jefferson, Missouri, and I am employed by the Missouri Department of Natural Resources' Division of Energy as a Research Analyst.
2. Attached hereto and made a part hereof for all purposes is Surrebuttal Testimony on behalf of the Missouri Department of Natural Resources' Division of Energy, consisting of 9 pages of testimony, all of which have been prepared in written form for introduction into evidence in the above-referenced docket.
3. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded are true and correct to the best of my knowledge.



Adam Bickford

Subscribed and sworn to before me this 4th day of May, 2012.



Notary Public

My commission expires:

