Exhibit No.:

Issue: Demand-Side Investment Mechanism

Witness: Maurice Brubaker Type of Exhibit: Rebuttal Testimony

Sponsoring Party: Missouri Industrial Energy Consumers

Case No.: EO-2012-0142 Date Testimony Prepared: April 13, 2012

# 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 in Furtherance of Energy Efficiency as Allowed by MEEIA

Case No. EO-2012-0142

Rebuttal Testimony and Schedules of

**Maurice Brubaker** 

On behalf of

## **Missouri Industrial Energy Consumers**

April 13, 2012



Project 9563

# 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 in Furtherance of Energy Efficiency as Allowed by MEEIA

Case No. EO-2012-0142

STATE OF MISSOURI ) SS COUNTY OF ST. LOUIS )

#### Affidavit of Maurice Brubaker

Maurice Brubaker, being first duly sworn, on his oath states:

- 1. My name is Maurice Brubaker. I am a consultant with Brubaker & Associates, Inc., having its principal place of business at 16690 Swingley Ridge Road, Suite 140, Chesterfield, Missouri 63017. We have been retained by the Missouri Industrial Energy Consumers in this proceeding on their behalf.
- 2. Attached hereto and made a part hereof for all purposes is my rebuttal testimony and schedules which were prepared in written form for introduction into evidence in Missouri Public Service Commission Case No. EO-2012-0142.
- 3. I hereby swear and affirm that the testimony and schedules are true and correct and that they show the matters and things that they purport to show.

Maurice Brubaker

Subscribed and sworn to before me this 12<sup>th</sup> day of April, 2012.

TAMMY S. KLOSSNER
Notary Public - Notary Seal
STATE OF MISSOURI
St. Charles County
My Commission Expires: Mar. 14, 2015
Commission # 11024862

Notary Public

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In the Matter of Union Electric Company d/b/a Ameren Missouri's Filing to Implement Regulatory Changes in Furtherance of Energy Efficiency as Allowed by MEEIA

Case No. EO-2012-0142

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# 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 in Furtherance of Energy Efficiency as Allowed by MEEIA

Case No. EO-2012-0142

#### Rebuttal Testimony of Maurice Brubaker

PLEASE STATE YOUR NAME AND BUSINESS ADDRESS. 1 Q 2 Α Maurice Brubaker. My business address is 16690 Swingley Ridge Road, Suite 140, 3 Chesterfield, MO 63017. 4 Q WHAT IS YOUR OCCUPATION? 5 Α I am a consultant in the field of public utility regulation and President of Brubaker & 6 Associates, Inc., energy, economic and regulatory consultants. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE. 7 Q 8 Α This information is included in Appendix A to my testimony. 9 Q ON WHOSE BEHALF ARE YOU APPEARING IN THIS PROCEEDING? 10 Α I am appearing on behalf of the Missouri Industrial Energy Consumers ("MIEC"). 11 Members of the MIEC are large consumers of electric power on the Ameren Missouri 12 system and could be significantly impacted by the decisions made in this case.

#### 1 Q WHAT SUBJECTS ARE ADDRESSED IN YOUR TESTIMONY?

- 2 A In my testimony, I will address the manner in which any approved Demand-Side
  3 Investment Mechanism ("DSIM") charges should be assessed to and collected from
  4 customers.
  - The fact that I do not address other aspects of Ameren Missouri's demand-side management ("DSM") programs or its DSIM proposal should not be interpreted as an endorsement of them.

#### 8 Q PLEASE SUMMARIZE YOUR FINDINGS AND RECOMMENDATIONS.

9 A They may be summarized as follows:

- Costs associated with residential programs should be charged to residential customers and costs associated with commercial and industrial programs should be charged to commercial and industrial rate schedules.
- 13 2. The allocation of costs and other elements of DSIM charges to business customers should be by rate schedule.
  - 3. Ameren Missouri's treatment of customers who have opted out from the DSM programs is appropriate.
  - 4. I generally agree with Ameren Missouri's allocation of program costs to rate schedules (see Schedule 1).
    - 5. I believe Ameren Missouri's allocation of claimed Performance Mechanism benefits to customer classes uses too short of a period of history and results in an unrepresentative amount of costs being allocated to Large Primary Service ("LPS") customers. I have proposed an allocation that uses data from a more representative period of time (see Schedules 2 and 3).
    - 6. I recommend that Ameren Missouri track program expenditures and realized energy reductions by rate schedule. To the extent that the actual results by rate schedule differ from the expected results, there should then be a true-up whereby these differences are combined with the expected amounts for the subsequent recovery period, so that the proper amounts eventually will be collected from each rate schedule.
  - 7. Over the next several years, the only customers that can possibly benefit from Ameren Missouri's programs are those that actually are able to, and do, take advantage of the programs. Customers who do not participate will see higher rates.

1 2		8. Over the long run, the standard cost-effectiveness tests indicate that customers' rates will be higher than they would be without the programs (see Schedule 5).
3	Ame	eren Missouri's Approach to DSIM
4	Q	IN GENERAL, WHAT IS AMEREN MISSOURI'S APPROACH TO COLLECTING
5		COSTS AND OTHER CHARGES ASSOCIATED WITH ITS DSM PROGRAMS?
6	Α	There are three components to Ameren Missouri's proposed DSIM. The first is the
7		recovery of program costs, the second is what Ameren Missouri describes as a
8		"Performance Mechanism" and the third is a component to provide an amortization of
9		costs that previously have been capitalized, along with a return on the unamortized
10		balance.
11	Q	HOW HAS AMEREN MISSOURI TREATED CUSTOMERS WHO HAVE OPTED
12		OUT OF ITS DSM PROGRAMS?
13	Α	Ameren Missouri has appropriately excluded from the DSIM surcharge the
14		kilowatthours associated with customers who have opted out of its programs. This is
15		appropriate because customers who have elected not to participate in these
16		programs should not be required to bear their costs.
17	Q	HAS AMEREN MISSOURI TRACKED THE ELEMENTS OF PROGRAM COST BY

Yes, to a substantial degree. Ameren Missouri first separated program costs and

benefits between residential customers as a group and business customers as a

group. Using historic information and current sales volumes net of opt-out customer

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RATE SCHEDULE?

energy, Ameren Missouri then apportioned the business customer charges to individual rate schedules.

#### Q DO YOU AGREE WITH THIS GENERAL APPROACH?

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Α

4 A Yes. I believe this general approach is appropriate. However, I will comment on some of the allocations among rate schedules within the business class and offer an alternative.

# IS IT APPROPRIATE FOR AMEREN TO TRACK AND RECOVER THE DSIM CHARGES BY RATE SCHEDULE?

Yes. One of the most fundamental tenets of ratemaking is to charge costs to those customers or groups of customers who are responsible for their incurrence. This is why in a cost of service study some customers are charged with costs of secondary voltage facilities and others are not; why costs such as meter reading, billing and customer accounting are analyzed and assigned to customer classes based on their causation of costs; why differences in losses as a function of the voltage level of service are recognized in cost of service studies; and similarly throughout the entire cost assignment/allocation and ratemaking process. It is no different with respect to these specific services that are performed on the premises of individual customers.

There simply is no justification for spreading the costs of residential and commercial/industrial customer programs across all customer classes. Costs associated with residential customers should be assigned to and collected from only residential customers and costs associated with commercial and industrial customers should be assigned to and collected only from them.

Furthermore, the primary beneficiary of any energy efficiency service is the customer who receives it directly, and as a result experiences a reduction in the quantity of electricity through the meter. This, of course, directly reduces the amount of the electric bill and 100% of this benefit accrues to the customer receiving the energy efficiency service.

#### HOW DO THE INDIVIDUAL CUSTOMER REDUCTIONS AFFECT THE CUSTOMER

#### CLASS?

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The reduced consumption by a customer reduces the amount of revenue collected from the class of which that customer is a member, reduces the number of kilowatthours consumed by that class and reduces kilowatt demands placed on the system by that class. These class-level benefits will translate into a reduced allocation of both demand-related costs and energy-related costs to the class of which these participating customers are a member.

#### 14 Q CAN YOU ELABORATE?

Yes. For example, if the residential class demand is reduced by, say, 3%, then the demand-related costs allocated to the residential class in a future class cost of service study will be proportionately reduced. Non-residential customers receive no part of this benefit. The same is true for reduced energy usage in terms of a lower allocation of variable costs such as fuel.

1	Q	WHAT IF THE INCREASE IN A RATE CASE IS SPREAD AS A FUNCTION OF
2		CLASS REVENUES?
3	Α	If the revenue increase in a rate case is allocated in some proportion to existing class
4		revenues, the class of which the participant is a member will have a lower proportion
5		of total system revenues and therefore would receive a lower proportion of any
6		revenue increase that is spread as a function of class revenues.
7	Reco	very of Program Costs
8	Q	WHERE IN AMEREN MISSOURI'S REPORT ARE THE PROGRAM COST
9		RECOVERY COMPONENTS SET FORTH?
0	Α	They are set forth on page 32 of the Missouri Energy Efficiency Investment Ac
1		("MEEIA") Report, and duplicated on Schedule 1, along with some supporting detail
2		that appears in Ameren Missouri's workpapers.
13	Q	WHAT IS THE BASIS FOR THE ALLOCATION OF THE BUSINESS PROGRAM
4		COSTS AMONG BUSINESS PROGRAM RATE SCHEDULE CUSTOMERS?
15	Α	These costs are related to the cost of new programs which Ameren Missouri has

Ameren Missouri has allocated the business class expenditures among rate schedules on the basis of the weather-normalized rate class energy, adjusted for customer opt-outs. Ameren Missouri's reasoning is that this allocator is appropriate because customers in each class are eligible to participate in the programs.

proposed. They represent a three-year average of expected program costs.

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#### 1 Q DO YOU AGREE WITH THIS ALLOCATION?

I believe it is a reasonable allocation given the fact that actual participation by customers in each class will not be known until the three-year period has passed. For purposes of calculating the initial DSIM factor, I think Ameren's approach is reasonable.

#### 6 Q DO YOU HAVE ANY RECOMMENDATIONS?

Yes. I recommend that Ameren Missouri track these expenditures by rate schedule.

To the extent that the actual expenditures by rate schedule differ from the expected amounts, there should be a true-up whereby these differences are combined with the expected program expenditures for the subsequent recovery period, so that the proper amounts eventually will be collected from each rate schedule.

## 12 Recovery of the Performance Mechanism Amounts

- 13 Q WHERE IN AMEREN MISSOURI'S MEEIA REPORT IS THE ALLOCATION BY
  14 RATE SCHEDULE FOR THE PERFORMANCE MECHANISM SET FORTH?
- 15 A This is set forth on page 34 of the MEEIA report.
- 16 Q WHAT IS THE BASIS OF THE ALLOCATION OF THE PERFORMANCE
  17 MECHANISM REVENUE REQUIREMENT AMONG RATE SCHEDULES IN THE
- 18 **BUSINESS CLASS?**
- A Ameren Missouri has based this allocation on estimated annualized test year energy reductions by rate class associated with historical utility energy efficiency programs.

#### Q DO YOU AGREE WITH THIS APPROACH?

2 A Generically, I think the approach is reasonable. However, I do not believe that the specific historical allocation base that Ameren Missouri has chosen for this allocation is reasonable.

#### 5 Q PLEASE EXPLAIN.

Α

Schedule 2 attached to this testimony is a summary of Ameren Missouri's estimated energy savings from its energy efficiency programs, detailed by rate schedule, within the business class of customers. The data set available extends from April 2009 (the programs were launched in February 2009) through September 2011. The data in columns (5) and (6) on the attached Schedule 2 represent the basis for Ameren Missouri's allocation of the performance mechanism revenue requirements among customer classes. As indicated, this is based on historic estimated energy savings reductions. Note that the percentage share of savings attributed to the LPS class in the October 2010 through September 2011 period used by Ameren Missouri is nearly twice the percentage in prior periods. In examining the data for this period, it was determined that a single, large project in June 2011 for a Rate 11 customer represents nearly 50% of the total for Rate 11 for this time period, and is substantially in excess of monthly totals throughout the period.

#### 19 Q DO YOU HAVE A RECOMMENDATION?

A Yes. I believe data for the entire period, April 2009 through September 2011, would be more representative and should be utilized for the purpose of allocating any performance mechanism revenue requirements.

#### 1 Q HAVE YOU CALCULATED THE DSIM SURCHARGE COMPONENT THAT WOULD

#### 2 BE ASSOCIATED WITH THIS ALLOCATION?

Yes. This appears on Schedule 3 attached to this testimony. It uses the same general methodology that Ameren Missouri has used, but bases the allocation among rate schedules within the business class of customers on the estimated energy efficiency savings that are attributable to programs and measure installations over the entire period of time.

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#### Q DO YOU HAVE ANY OTHER RECOMMENDATIONS?

A Yes. I recommend that Ameren Missouri track the results of the new measure installations by rate schedule. To the extent that the actual energy reductions by rate schedule differ from the expected amounts, there should be a true-up whereby these differences are combined with the expected savings from new measures to be installed in the subsequent recovery period, so that the proper amounts eventually will be collected from each rate schedule.

# 16 Recovery of Historic Costs that

## 17 Are Currently Being Amortized

- 18 Q HAS AMEREN MISSOURI SET FORTH THE RECOVERY MECHANISM
- 19 COMPONENTS FOR THE AMORTIZATION AND RETURN ON THE
- 20 UNAMORTIZED BALANCE OF PREVIOUSLY INCURRED COSTS?
- 21 A This is mentioned on page 34 of the MEEIA Report. However, in the table which 22 deals with "prior periods," the amounts shown are simply those being collected in 23 current rates. Most likely, this is because the current rate case (Case

1		No. ER-2012-0166) was not filed until approximately two weeks after the MEEIA filing
2		was made.
3	Q	HAVE YOU DEVELOPED AN ILLUSTRATION OF HOW THE PRIOR PERIOD
4		COSTS REQUESTED IN THE RATE CASE WOULD BE COLLECTED IF
5		APPROVED?
6	Α	Yes. Schedule 4 attached to this testimony sets out those amounts. They are taken
7		from the "EE" tab in the cost of service study in the rate case that is sponsored by
8		Ameren Missouri witness Warwick.
9	Q	HOW ARE THESE AMOUNTS ALLOCATED TO CUSTOMER CLASSES?
10	Α	Amounts are allocated between the residential customers and the business
11		customers using historic program costs. Costs within the business class are
12		allocated to rate schedules based on historic incentives paid to customers.
13	Q	DO YOU AGREE WITH THIS APPROACH?
14	Α	Yes, I do. I believe it is reasonable as a basis for apportioning these costs to rate
15		schedules.
16	Bene	efits of DSM Programs
17	Q	IN THE SHORT RUN, WHO BENEFITS?
18	Α	In the short-run, only those customers who participate in the programs have the
19		possibility of being better-off. They would be better off only if the savings that they
20		experience in the electric bill is more than the sum of their directly incurred costs plus
21		the DSIM charges that they would pay. Customers who do not participate, and who

- do not opt-out, clearly would be worse off because they are being charged for DSIM costs, yet receiving no direct benefit.
  - Q WHAT ARE THE EXPECTATIONS IN THE LONG-RUN?
- A Please see Schedule 5 attached to my testimony. This is Ameren Missouri's cost-effectiveness test summary which presents the results of the standard cost-effectiveness measures for DSM programs. The impact on rates is determined by the ratepayer impact measure ("RIM").

#### 8 Q WHAT IS THE BASIS OF THE RIM TEST?

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- 9 A Under the RIM test, the benefits are the costs avoided as a result of implementing the
  10 DSM programs. The costs consist of incentives paid to participants, other costs
  11 incurred by the utility, and the loss in revenues as a result of diminished consumption.
  12 Costs also include the cost to administer, deliver and evaluate the DSM program.
- 13 Q HOW SHOULD THE RESULTS OF THE RIM TEST BE INTERPRETED?
- 14 A Under the RIM test, a ratio of less than 1.0 means that implementation of the program
  15 will cause rates to be higher than they would have been had the program not been
  16 implemented and instead the utility had pursued supply-side resources. Note that
  17 nearly all the programs have the effect of increasing rates.
  - In particular, the residential programs have a total RIM of 0.68, the business programs have a total RIM of 0.79, and the overall composite portfolio has a RIM of 0.72.

- 1 Q DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?
- 2 A Yes, it does.

# Appendix A

# **Qualifications of Maurice Brubaker**

1	Q	PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.								
2	Α	Maurice Brubaker. My business address is 16690 Swingley Ridge Road, Suite 140,								
3		Chesterfield, MO 63017.								
4	Q	PLEASE STATE YOUR OCCUPATION.								
5	Α	I am a consultant in the field of public utility regulation and President of the firm of								
6		Brubaker & Associates, Inc. (BAI), energy, economic and regulatory consultants.								
7	Q	PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND								
8		EXPERIENCE.								
9	Α	I was graduated from the University of Missouri in 1965, with a Bachelor's Degree in								
10		Electrical Engineering. Subsequent to graduation I was employed by the Utilities								
11		Section of the Engineering and Technology Division of Esso Research and								
12		Engineering Corporation of Morristown, New Jersey, a subsidiary of Standard Oil of								
13		New Jersey.								
14		In the Fall of 1965, I enrolled in the Graduate School of Business at								
15		Washington University in St. Louis, Missouri. I was graduated in June of 1967 with								
16		the Degree of Master of Business Administration. My major field was finance.								
17		From March of 1966 until March of 1970, I was employed by Emerson Electric								
18		Company in St. Louis. During this time I pursued the Degree of Master of Science in								
19		Engineering at Washington University, which I received in June, 1970.								

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In March of 1970, I joined the firm of Drazen Associates, Inc., of St. Louis, Missouri. Since that time I have been engaged in the preparation of numerous studies relating to electric, gas, and water utilities. These studies have included analyses of the cost to serve various types of customers, the design of rates for utility services, cost forecasts, cogeneration rates and determinations of rate base and operating income. I have also addressed utility resource planning principles and plans, reviewed capacity additions to determine whether or not they were used and useful, addressed demand-side management issues independently and as part of least cost planning, and have reviewed utility determinations of the need for capacity additions and/or purchased power to determine the consistency of such plans with least cost planning principles. I have also testified about the prudency of the actions undertaken by utilities to meet the needs of their customers in the wholesale power markets and have recommended disallowances of costs where such actions were deemed imprudent.

I have testified before the Federal Energy Regulatory Commission (FERC), various courts and legislatures, and the state regulatory commissions of Alabama, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Georgia, Guam, Hawaii, Illinois, Indiana, Iowa, Kentucky, Louisiana, Michigan, Missouri, Nevada, New Jersey, New Mexico, New York, North Carolina, Ohio, Pennsylvania, Rhode Island, South Carolina, South Dakota, Texas, Utah, Virginia, West Virginia, Wisconsin and Wyoming.

The firm of Drazen-Brubaker & Associates, Inc. was incorporated in 1972 and assumed the utility rate and economic consulting activities of Drazen Associates, Inc., founded in 1937. In April, 1995 the firm of Brubaker & Associates, Inc. was formed. It includes most of the former DBA principals and staff. Our staff includes consultants

with backgrounds in accounting, engineering, economics, mathematics, computer science and business.

Brubaker & Associates, Inc. and its predecessor firm has participated in over 700 major utility rate and other cases and statewide generic investigations before utility regulatory commissions in 40 states, involving electric, gas, water, and steam rates and other issues. Cases in which the firm has been involved have included more than 80 of the 100 largest electric utilities and over 30 gas distribution companies and pipelines.

An increasing portion of the firm's activities is concentrated in the areas of competitive procurement. While the firm has always assisted its clients in negotiating contracts for utility services in the regulated environment, increasingly there are opportunities for certain customers to acquire power on a competitive basis from a supplier other than its traditional electric utility. The firm assists clients in identifying and evaluating purchased power options, conducts RFPs and negotiates with suppliers for the acquisition and delivery of supplies. We have prepared option studies and/or conducted RFPs for competitive acquisition of power supply for industrial and other end-use customers throughout the Unites States and in Canada, involving total needs in excess of 3,000 megawatts. The firm is also an associate member of the Electric Reliability Council of Texas and a licensed electricity aggregator in the State of Texas.

In addition to our main office in St. Louis, the firm has branch offices in Phoenix, Arizona and Corpus Christi, Texas.

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# Energy Efficiency Program Cost Recovery

#### **Allocated** Revenue Revenue Winter Summer Requirement Winter Revenue **Allocation** Requirement Summer Summer Winter Revenue (Class Energy) (\$MM) kWh\* kWh\* Line **Rate Class** (\$MM) \$/kWh \$/kWh **Share** Share (4) (5) (6) (9) (7) (1) (2) (3) (8) RES 1 \$27.65 100% \$27.6 \$0.0027 \$0.0017 4,747,027,696 8,743,191,174 46.1% 53.9% 2 SGS 19.8% \$4.1 \$0.0015 \$0.0010 2,263,993,723 43.7% 56.3% 1,231,811,419 \$9.6 3 LGS 46.0% \$0.0016 \$0.0009 2,932,934,020 5,193,662,064 48.6% 51.4% \$20.78 4 SPS 19.5% \$4.0 \$0.0016 \$0.0010 1,235,975,637 2,203,096,787 48.1% 51.9% 5 LPS \$0.0010 931,458,259 14.7% \$3.1 \$0.0015 1,673,985,671 46.2% 53.8% 6 LTS \$0.0 \$0.0 \$0.0000 \$0.0000 N.A. N.A. N.A. N.A. \$0.0 \$0.0 7 Lighting \$0.0000 \$0.0000 N.A. N.A. N.A. N.A. 8 \$20.78 Total Bus. 100% \$20.78 9 Total All \$48.43 \$48.43

<sup>\*</sup> Net of Opt-out kWh

## Estimated Energy Savings Due to Energy Efficiency Efforts Benefitting the Business Classes of Customers

		April 09 - Sep	ot. 09	Oct. 09 - Sep	Oct. 10 - Sept	t. 11*	April 09 - Sept 11		
		<b>Energy Efficiency Savings</b>		<b>Energy Efficiency Savings</b>		Energy Efficiency Savings		<b>Energy Efficiency Savings</b>	
Line	Rate Class	(kWh)	(%)	(kWh)	(%)	(kWh)	(%)	(kWh)	(%)
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	SGS (Rate 2M)	1,472,549	9.5%	4,956,746	6.9%	10,864,469	8.9%	17,293,764	8.2%
2	LGS (Rate 3M)	10,959,529	70.8%	36,589,633	51.0%	56,595,474	46.2%	104,144,636	49.7%
3	SPS (Rate 4M)	2,976,843	19.2%	22,093,682	30.8%	29,969,204	24.5%	55,039,728	26.3%
4	LPS (Rate 11M)	75,223	0.5%	8,050,054	11.2%	25,069,168	20.5%	33,194,444	15.8%
5	Totals	15,484,144	100.0%	71,690,114	100.0%	122,498,315	100.0%	209,672,573	100.0%

<sup>\* -</sup> Indicates the time period used by Ameren Missouri in its 2012 MEEIA Filing Report

#### Energy Efficiency Performance Mechanism Recovery

# Allocated

Line	Rate Class	Revenue Requirement (\$MM) (1)	Allocation on Historical Savings From DSM Programs (2)	Revenue Requirement (\$MM) (3)	Summer \$/kWh (4)	Winter \$/kWh (5)	Summer kWh* (6)	Winter kWh* (7)	Summer Revenue Share (8)	Winter Revenue Share (9)
1	RES	\$20.70	100%	\$20.7	\$0.0020	\$0.0013	4,747,027,696	8,743,191,174	46.1%	53.9%
2	SGS		8.2%	\$1.0	\$0.0003	\$0.0002	1,231,811,419	2,263,993,723	43.7%	56.3%
3	LGS	\$11.78	49.7%	\$5.9	\$0.0010	\$0.0006	2,932,934,020	5,193,662,064	48.6%	51.4%
4	SPS	φ11.70	26.3%	\$3.1	\$0.0012	\$0.0007	1,235,975,637	2,203,096,787	48.1%	51.9%
5	LPS		15.8%	\$1.9	\$0.0009	\$0.0006	931,458,259	1,673,985,671	46.2%	53.8%
6	LTS	\$0.0	-	\$0.0	\$0.0000	\$0.0000	N.A.	N.A.	N.A.	N.A.
7	Lighting	\$0.0		\$0.0	\$0.0000	\$0.0000	N.A.	N.A.	N.A.	N.A.
8	Total Bus.	\$11.78	100%	\$11.78						
9	Total All	\$32.49		\$32.49						

<sup>\*</sup> Net of Opt-out kWh

# Energy Efficiency Cost Recovery for Amortization and Return on the Unamortized Balance of Previously Incurred Costs

Amort. & Return

Line	Rate Class	on Unamortized Balance** (\$MM)	Summer \$/kWh	Winter \$/kWh	Summer kWh*	Winter kWh*	Summer Revenue Share	Winter Revenue Share
		(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	RES	\$10.4	\$0.0010	\$0.0006	4,747,027,696	8,743,191,174	46.1%	53.9%
2	SGS	\$1.1	\$0.0004	\$0.0003	1,231,811,419	2,263,993,723	43.7%	56.3%
3	LGS	\$6.6	\$0.0011	\$0.0007	2,932,934,020	5,193,662,064	48.6%	51.4%
4	SPS	\$3.4	\$0.0013	\$0.0008	1,235,975,637	2,203,096,787	48.1%	51.9%
5	LPS	\$2.1	\$0.0011	\$0.0007	931,458,259	1,673,985,671	46.2%	53.8%
6	LTS	\$0.0	\$0.0000	\$0.0000	N.A.	N.A.	N.A.	N.A.
7	Lighting	\$0.0	\$0.0000	\$0.0000	N.A.	N.A.	N.A.	N.A.
8	Total Bus.	\$13.23						
9	Total All	\$23.63						

<sup>\*</sup> Net of Opt-out kWh

<sup>\*\*</sup> Class Cost of Service Study ("EE Allocator" tab) in Case No ER-2012-0166.

## **Cost-Effectiveness Test Summary**

MEEIA Implementation				
Plan 2013-2015	TRC	UCT	PCT	RIM
RES-Lighting	3.66	6.01	10.18	0.56
RES-Efficient Products	1.55	3.90	2.85	0.62
RES-HVAC	2.11	4.61	2.63	0.94
RES-Refrigerator Recycling	2.23	2.93	11.67	0.63
RES-HEP	1.64	3.00	3.11	0.68
RES-New Homes	1.26	1.77	3.61	0.57
RES-Low Income	0.84	0.84	2.85	0.43
RES-TOTAL	2.24	4.00	4.52	0.68
Bus-Standard	2.14	3.15	4.10	0.75
BUS-Custom	1.77	3.55	2.62	0.82
BUS-RCx	1.70	3.77	2.51	0.79
BUS-New Construction	1.36	2.22	2.42	0.71
BUS-TOTAL	1.85	3.33	2.98	0.79
PORTFOLIO TOTAL	2.07	3.71	3.86	0.72

Note: Data in table reflects cost-based values calculated using DSMore.

Source: Ameren Missouri MEEIA Report, Page 43.