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Recovery
Witness: Daniel G. Laurent
Sponsoring Party: Union Electric Company
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MISSOURI PUBLIC SERVICE COMMISSION

CASE NO. ER-2011-0028

REBUTTAL TESTIMONY

OF

DANIEL G. LAURENT

ON

BEHALF OF

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

**St. Louis, Missouri
March, 2011**

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1 **REBUTTAL TESTIMONY**

2 **OF**

3 **DANIEL G. LAURENT**

4
5 **CASE NO. ER-2011-0028**

6
7 **I. INTRODUCTION**

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

9 A. My name is Daniel G. Laurent, and my business address is One Ameren
10 Plaza, 1901 Chouteau Avenue, St. Louis, Missouri.

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

12 A. I am Manager, Energy Efficiency and Demand Response for Union
13 Electric Company d/b/a Ameren Missouri (“Ameren Missouri” or “Company”).

14 **Q. Please describe your educational background and employment**
15 **experience.**

16 A. I joined Central Illinois Public Service Company (“CIPS”) as
17 Meter/Distribution Engineer in June of 1988 and held several positions in engineering,
18 customer service and marketing before being promoted to the Marketing Manager prior
19 to the merger of CIPS and Union Electric Company in 1998. After the merger, I was
20 named Manager, Pricing and Contract Administration for Ameren Services. After
21 holding Manager positions in Marketing, Business Development and Regulatory
22 Compliance, I was promoted to my current position within Ameren Missouri. I have a
23 Bachelor of Science Degree in Electrical Engineering from the University of Illinois and
24 a Master of Business Administration from Webster University.

1 provide valuable input to the portfolio and program design due to their experience in
2 implementing programs. Review of evaluation reports and assessment of current market
3 conditions also contribute to dynamic program designs.

4 The time lag between the initial program design and ultimate implementation can
5 often lead to constructive changes to initial program plans. As Ms. Wolfe acknowledged
6 in her direct testimony, “The IRP is based on what is known at the time of the study. It is
7 not uncommon, however, in the course of designing, implementing and administering
8 DSM programs that a utility learns of other DSM opportunities that may not have been
9 considered before.”¹

10 Ms. Wolfe also notes that “Ameren Missouri has also shown a willingness to seek
11 out alternative program designs and target customers in order to achieve success.”² This
12 has been demonstrated by Ameren Missouri's successful implementation of the
13 Appliance Recycling, Multi-Family Income Qualified and Social Marketing Distribution
14 programs which were not included in the 2008 IRP.

15 Ameren Missouri is committed to implementing cost-effective programs that
16 achieve the MWh savings within the projected budget outlined in the 2008 IRP, not to
17 implement the exact programs originally outlined in the IRP. The program design should
18 be dynamic, not static, and keep current with changing market conditions.

¹ Direct testimony of Laura Wolfe, p. 8, l. 5-8.

² Id., p. 18-19.

1 **Q. Do you agree with Staff's assertion that the Lighting and Appliance**
2 **program benefits are very difficult to measure?**

3 A. No, the Company does not share their concern. The Company hired an
4 independent, third party contractor, The Cadmus Group (“Cadmus”), to evaluate our
5 portfolio of residential energy efficiency programs. Cadmus has national experience
6 evaluating similar programs and has developed a robust approach that is being utilized by
7 several utilities in numerous states throughout the country. Cadmus has expressed no
8 concerns pertaining to the accurate evaluation of the Lighting and Appliance program and
9 has explained their evaluation approach to the regulatory stakeholders on multiple
10 occasions.

11 It is useful to remember the purpose of evaluation. Evaluation will verify that the
12 program savings are what was expected, or make adjustments, up or down, as necessary.
13 Evaluation doesn’t eliminate the need for deemed savings values or engineering estimates
14 for program tracking prior to evaluation. These estimates are valid methods to report
15 program progress, and evaluation is used to provide a true-up at the end of a program
16 cycle. Evaluation is also used to recommend process improvements.

17 Ameren Missouri initiated a “best practice” energy efficiency program evaluation
18 process. Evaluators were hired early in the program implementation cycle and were
19 asked to review and comment on estimated savings values, review databases to determine
20 if the necessary data was being tracked, perform site visits throughout the program year,
21 and suggest program improvements whenever concerns arise. Ameren Missouri conducts
22 weekly calls with the evaluators to discuss program and evaluation progress. Instead of
23 the historical model where an evaluator reviews a program after the three-year program

1 cycle has been completed, Ameren Missouri's evaluation contractors have been
2 providing continuous evaluation services. As a result, the Company would not expect
3 any major surprises upon completion of the annual evaluation report as we would have
4 already been apprised of any concerns that evaluators might have with a particular
5 program.

6 **Q. Has Ameren Missouri received the Program Year 2 Lighting and**
7 **Appliance program evaluation results?**

8 A. Yes. Ameren Missouri has received the evaluation report completed by
9 Cadmus and has provided this report to the regulatory stakeholders.

10 The program's evaluated results exceeded its goals for energy savings. The
11 results of an hours of use study in the Company's territory indicate customers use
12 compact fluorescent lights ("CFLs") an average of 2.91 hours per day, considerably
13 higher than the conservative estimate of 2.34 hours used by APT to estimate energy
14 savings. The Net-to-Gross Ratio of the lighting portion of the program is 96%, much
15 higher than the conservative 80% that was used to estimate savings.

16 According to the evaluation, retailers reported the program has been successful in
17 increasing the supply of energy efficient CFLs and appliances in the market and most
18 retailers report significant increases in their sales due to the program.

19 The Company recalculated the Lighting and Appliance program Total Resource
20 Cost ("TRC") test based upon the Cadmus evaluation results and found the revised
21 program TRC to be 2.63. Programs passing the TRC test (that is, having a benefit to cost
22 ratio greater than 1.0) result in a decrease in the total cost of energy services to all electric
23 ratepayers.

1 Based on the evaluation results, the Lighting and Appliance Program has proved
2 to be very successful, is cost effective and is appreciated by and beneficial to Ameren
3 Missouri's customers. The costs of the Lighting and Appliance program incurred to date
4 should be included in rates.

5 **V. LOW INCOME WEATHERIZATION**

6 **Q. Do you agree with Ms. Wolfe and Mr. Warren that funding of Low**
7 **Income Weatherization should continue at a level of \$1.2 million per year?**

8 A. Yes. However, Ameren Missouri believes the program should have more
9 transparent reporting and that the program should be evaluated similar to other energy
10 efficiency programs funded by customers.

11 Ameren Missouri recommends that the DNR provide quarterly reporting at the
12 regulatory stakeholder update meetings to show the estimated electric energy savings at
13 customer homes and the associated costs resulting from this program. Ameren Missouri
14 recommends that a portion of the funds be spent on an independent third party evaluation
15 of the program as the last evaluation included the period 4/1/06 through 10/31/08. The
16 \$1.2 million per year should not be spent on gas measures or on Missouri residents that
17 are not Ameren Missouri electric customers.

18 **VI. SUMMARY OF TESTIMONY AND CONCLUSIONS**

19 **Q. Please summarize your testimony and conclusions.**

20 A. As I have stated above, Ameren Missouri recognizes the benefits of
21 utility-sponsored energy efficiency programs and has developed and implemented cost-
22 effective programs for the benefit of our customers. Ameren Missouri is currently
23 running successful residential and non-residential energy efficiency programs, including

1 the Residential Lighting and Appliance Program, and the costs of all of the programs
2 should be included in rates. Ameren Missouri is on track to meet the energy efficiency
3 savings goals within the projected budget as established in the 2008 IRP.

4 Ameren Missouri supports the funding of the Low Income Weatherization
5 Program through the Department of Natural Resources, but feels that program should be
6 subject to the same level of transparent reporting and evaluation as other programs
7 funded by customers.

8 **Q. Does this conclude your rebuttal testimony?**

9 A. Yes, it does.

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

In the Matter of Union Electric Company)
d/b/a AmerenUE for Authority to File)
Tariffs Increasing Rates for Electric)
Service Provided to Customers in the)
Company's Missouri Service Area.)

Case No. ER-2011-0028

AFFIDAVIT OF DANIEL G. LAURENT

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

Daniel G. Laurent, being first duly sworn on his oath, states:

1. My name is Daniel G. Laurent. I work in the City of St. Louis, Missouri, and I am employed by Union Electric Company d/b/a Ameren Missouri as Manager, Energy Efficiency and Demand Response.

2. Attached hereto and made a part hereof for all purposes is my Rebuttal Testimony on behalf of Ameren Missouri consisting of 9 pages, and Schedule DGL-ER1, 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.



Daniel G. Laurent

Subscribed and sworn to before me this 25 day of March, 2011.



Notary Public

My commission expires:



Ameren Missouri Demand-Side Resources Performance Summary Report

Date of Report: **February 28, 2011**

Year 1: Feb. 11, 2009 to Sept. 30, 2009 (BUSINESS) and Apr. 24, 2009 to Sept. 30, 2009 (RESIDENTIAL) Year 2: Oct. 1, 2009 to Sept. 30, 2010 Year 3: Oct. 1, 2010 to Sept. 30, 2011

Implementation Date	Program	IRP	Cumulative MWh			Cumulative MW			Cumulative Program Costs (\$000)			Cost Effectiveness	
			Year 1	Year 2	Year 3	Year 1	Year 2	Year 3	Year 1	Year 2	Year 3	TRC	UCT
3/2/09	ENERGY STAR Homes Program	IRP	0	0	154	0.0	0.0	0.1	\$ -	\$ 129	\$ 304	1.00	1.18
Expected		Actual	0	0	0	0.0	0.0	0.0	\$ -	\$ -	\$ -		
Actual		Variance	0	0	(154)	0	0	(0)	\$ -	\$ (129)	\$ (304)	(1.00)	(1.18)
10/31/08	Home Energy Performance	IRP	3,480	8,195	14,463	0.5	1.2	2.0	\$ 762	\$ 1,820	\$ 3,262	2.39	3.19
Expected		Actual	0	0	0	0.0	0.0	0.0	\$ 371	\$ 371	\$ 371		
Actual		Variance	(3,480)	(8,195)	(14,463)	(1)	(1)	(2)	\$ (391)	\$ (1,449)	\$ (2,891)	(2.39)	(3.19)
3/2/09	Res. DR-CPP w/ Smart Thermostat	IRP	0	0	159	0.0	0.0	1.8	\$ -	\$ -	\$ 506	1.37	1.30
Expected		Actual	0	0	0	0.0	0.0	0.0	\$ 300	\$ 300	\$ 300		
Actual		Variance	0	0	(159)	0	0	(2)	\$ 300	\$ 300	\$ (206)	(1.37)	(1.30)
10/31/08	Res. DR - Direct Load Control	IRP	495	1,013	1,554	5.5	11.3	17.3	\$ 1,144	\$ 2,458	\$ 3,955	1.93	1.78
Expected		Actual	0	0	0	0.0	0.0	0.0	\$ -	\$ -	\$ -		
Actual		Variance	(495)	(1,013)	(1,554)	(6)	(11)	(17)	\$ (1,144)	\$ (2,458)	\$ (3,955)	(1.93)	(1.78)
1/1/09	HVAC CheckMe!	IRP	0	7,368	17,086	0.0	1.5	3.5	\$ 520	\$ 3,275	\$ 7,273	1.55	1.92
Expected		Actual	0	798	5,101	0.0	0.2	1.5	\$ 622	\$ 943	\$ 2,002		
Actual		Variance	0	(6,570)	(11,985)	0	(1)	(2)	\$ 102	\$ (2,332)	\$ (5,272)	(1.55)	(1.92)
11/28/08	Res Lighting & Appliance	IRP	28,749	65,928	112,670	2.4	5.6	9.6	\$ 3,075	\$ 7,151	\$ 12,403	2.29	3.99
Expected		Actual	3,838	66,460	91,541	0.3	6.1	8.4	\$ 2,424	\$ 7,823	\$ 9,165		
Actual		Variance	(24,911)	(532)	(21,129)	(2)	1	(1)	\$ (651)	\$ 672	\$ (3,238)	(2.29)	(3.99)
7/7/10	Social Marketing Distribution	IRP	0	3,486	7,706	0.0	0.3	0.7	\$ -	\$ 192	\$ 477		
Expected		Actual	0	3,486	7,706	0	0	1	\$ -	\$ 192	\$ 477	0.00	0.00
Actual		Variance	0	0	0	0	0	0	\$ 0	\$ 0	\$ 0		
9/1/08	Res. Low Income	IRP	4,581	9,162	13,742	0.3	0.5	0.8	\$ 2,954	\$ 5,982	\$ 9,085	0.88	1.00
Expected		Actual	0	5,201	9,042	0.0	0.6	1.0	\$ 1,169	\$ 3,893	\$ 5,478		
Actual		Variance	(4,581)	(3,961)	(4,700)	(0)	0	0	\$ (1,785)	\$ (2,088)	\$ (3,607)	(0.88)	(1.00)
11/28/08	Res. Multi-Family	IRP	10,012	24,136	34,026	1.8	4.3	6.2	\$ 656	\$ 1,685	\$ 3,047	2.63	3.26
Expected		Actual	0	29	29	0.0	0.0	0.0	\$ 860	\$ 1,240	\$ 1,240		
Actual		Variance	(10,012)	(24,107)	(33,997)	(2)	(4)	(6)	\$ 204	\$ (445)	\$ (1,806)	(2.63)	(3.26)
N/A	Appliance Recycling	IRP	0	0	0	0.0	0.0	0.0	\$ -	\$ -	\$ -	1.71	2.13
Expected		Actual	0	551	4,172	0.0	0.1	0.6	\$ -	\$ 109	\$ 859		
Actual		Variance	0	551	4,172	0	0	1	\$ -	\$ 109	\$ 859	(1.71)	(2.13)
	Total Residential Portfolio	IRP	47,317	115,802	193,854	10.5	24.4	41.3	\$ 9,111	\$ 22,500	\$ 39,834		
Expected		Actual	3,838	76,525	117,591	0.3	7.3	12.2	\$ 5,745	\$ 14,872	\$ 19,892		
Actual		Variance	(43,479)	(39,277)	(76,263)	(10)	(17)	(29)	\$ (3,365)	\$ (7,628)	\$ (19,942)		
9/1/08	C&I Custom	IRP	27,099	54,198	81,297	3.5	7.0	10.6	\$ 4,203	\$ 8,510	\$ 12,925	2.23	2.94
Expected		Actual	5,018	57,365	81,634	1.0	8.8	12.5	\$ 1,882	\$ 8,159	\$ 10,542		
Actual		Variance	(22,081)	3,167	337	(2.5)	1.8	1.9	\$ (2,321)	\$ (351)	\$ (2,384)	(2.23)	(2.94)
11/28/09	C&I Prescriptive	IRP	32,470	68,985	109,738	4.8	10.5	16.6	\$ 4,871	\$ 11,327	\$ 19,647	1.89	2.44
Expected		Actual	10,466	23,359	32,326	1.9	4.0	5.4	\$ 1,524	\$ 3,007	\$ 3,989		
Actual		Variance	(22,004)	(45,626)	(77,412)	(2.9)	(6.5)	(11.2)	\$ (3,346)	\$ (8,320)	\$ (15,659)	(1.89)	(2.44)
9/1/08	C&I Retro-Commissioning	IRP	11,573	24,007	37,357	1.4	2.8	4.4	\$ 562	\$ 1,182	\$ 1,863	3.17	6.78
Expected		Actual	0	1,558	3,581	0.0	0.2	0.5	\$ 74	\$ 314	\$ 912		
Actual		Variance	(11,573)	(22,449)	(33,776)	(1.4)	(2.6)	(3.9)	\$ (489)	\$ (868)	\$ (951)	(3.17)	(6.78)
9/1/08	Commercial Demand Credit	IRP	760	760	760	38.0	38.0	38.0	\$ 410	\$ 830	\$ 1,261	1.56	1.08
Expected		Actual	156	156	156	7.5	7.5	7.5	\$ 40	\$ 40	\$ 40		
Actual		Variance	(604)	(604)	(604)	(30.5)	(30.5)	(30.5)	\$ (370)	\$ (790)	\$ (1,221)	(1.56)	(1.08)
3/2/09	Commercial DR - CPP w/ Smart Therm.	IRP	0	0	178	0.0	0.0	2.0	\$ -	\$ -	\$ 488	1.60	1.51
Expected		Actual	0	0	0	0.0	0.0	0.0	\$ -	\$ -	\$ -		
Actual		Variance	0	0	(178)	0.0	0.0	(2.0)	\$ -	\$ -	\$ (488)	(1.60)	(1.51)
2/2/09	Commercial New Construction	IRP	817	1,634	2,451	0.3	0.5	0.8	\$ 666	\$ 1,348	\$ 2,047	1.14	1.35
Expected		Actual	0	4,809	7,596	0.0	0.7	1.4	\$ 95	\$ 841	\$ 1,615		
Actual		Variance	(817)	3,175	5,145	(0.3)	0.2	0.6	\$ (571)	\$ (507)	\$ (432)	(1.14)	(1.35)
7/18/08	Industrial Interruptible Tariff	IRP	3,800	3,800	3,800	47.5	47.5	47.5	\$ 1,999	\$ 4,047	\$ 6,147	1.59	0.36
Expected		Actual	0	0	0	0.0	0.0	0.0	\$ -	\$ -	\$ -		
Actual		Variance	(3,800)	(3,800)	(3,800)	(47.5)	(47.5)	(47.5)	\$ (1,999)	\$ (4,047)	\$ (6,147)	(1.59)	(0.36)
	Total C&I Portfolio	IRP	76,519	153,384	235,581	96	106	120	\$ 12,710	\$ 27,245	\$ 44,379		
Expected		Actual	15,640	87,247	125,293	10	21	27	\$ 3,615	\$ 12,361	\$ 17,097		
Actual		Variance	(60,879)	(66,137)	(110,288)	(85)	(85)	(93)	\$ (9,096)	\$ (14,884)	\$ (27,282)		

53.2%

38.53%

Education Program	IRP						\$ 500	\$ 1,200	\$ 2,100			
	Actual											
	Variance						\$ (500)	\$ (1,200)	\$ (2,100)			
Information Program	IRP						\$ 500	\$ 1,200	\$ 2,100			
	Actual						\$ 484	\$ 1,230	\$ 1,232			
	Variance						\$ (16)	\$ 30	\$ (868)			
Total Education and Information Programs	IRP						\$ 1,000	\$ 2,400	\$ 4,200			
	Actual						\$ 484	\$ 1,230	\$ 1,304			
	Variance						\$ (516)	\$ (1,170)	\$ (2,896)			
Total Portfolio (Without Indirect Costs)	IRP	123,836	269,186	429,435	106	131	161	\$ 22,821	\$ 52,144	\$ 88,414	1.71	2.04
	Actual	19,478	163,772	242,884	11	29	39	\$ 9,844	\$ 28,462	\$ 38,293		
	Variance	(104,358)	(105,414)	(186,551)	(95)	(102)	(122)	\$ (12,977)	\$ (23,682)	\$ (50,120)		
Portfolio Administration - Contractor	IRP						\$ -	\$ -	\$ -			
	Actual						\$ -	\$ -	\$ -			
	Variance						\$ -	\$ -	\$ -			
Portfolio Administration - Ameren Missouri	IRP						\$ 1,100	\$ 2,500	\$ 4,200			
	Actual						\$ 736	\$ 1,717	\$ 2,045			
	Variance						\$ (364)	\$ (783)	\$ (2,156)			
EM&V - Contractor	IRP						\$ 1,100	\$ 2,500	\$ 4,200			
	Actual						\$ 304	\$ 1,351	\$ 1,767			
	Variance						\$ (796)	\$ (1,149)	\$ (2,433)			
Total Portfolio Indirect Costs	IRP						\$ 2,200	\$ 5,000	\$ 8,400			
	Actual						\$ 1,040	\$ 3,068	\$ 3,811			
	Variance						\$ (1,160)	\$ (1,932)	\$ (4,589)			
Total Ameren Missouri DSM Portfolio	IRP	123,836	269,186	429,435	106	131	161	\$ 25,021	\$ 57,144	\$ 96,814	1.71	2.04
	Actual	19,478	163,772	242,884	11	29	39	\$ 10,884	\$ 31,531	\$ 42,105		
	Variance	(104,358)	(105,414)	(186,551)	(95)	(102)	(122)	\$ (14,137)	\$ (25,614)	\$ (54,709)		