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**MISSOURI PUBLIC SERVICE COMMISSION**

**UNION ELECTRIC COMPANY**

d/b/a

**AMEREN MISSOURI**

**CASE NO. ER-2014-0258**

**DIRECT TESTIMONY**

**OF**

**JOHN BUCHANAN**

**ON**

**BEHALF OF**

**MISSOURI DEPARTMENT OF ECONOMIC DEVELOPMENT**

**DIVISION OF ENERGY**

Jefferson City, Missouri  
December 19, 2014

(Rate Design)

DOE Exhibit No. 700  
Date 2-23-15 Reporter KF  
File No. ER-2014-0258

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

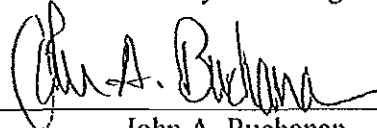
In the Matter of Union Electric Company d/b/a Ameren     )  
Missouri's Tariffs to Increase Its Revenues for         )     ER-2014-0258  
Electric Service   )

**AFFIDAVIT OF JOHN A. BUCHANAN**

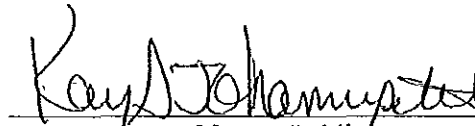
STATE OF MISSOURI     )  
   )     ss  
COUNTY OF COLE        )

John A. Buchanan, of lawful age, being duly sworn on his oath, deposes and states:

1. My name is John A. Buchanan. I work in the City of Jefferson, Missouri, and I am employed by the Missouri Department of Economic Development as Senior Planner, Division of Energy.
2. Attached hereto and made a part hereof for all purposes is my Direct Testimony on behalf of the Missouri Department of Economic Development – Division of Energy.
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.

  
\_\_\_\_\_  
John A. Buchanan

Subscribed and sworn to before me this 19<sup>th</sup> day of December, 2014

  
\_\_\_\_\_  
Notary Public

My commission expires: \_\_\_\_\_

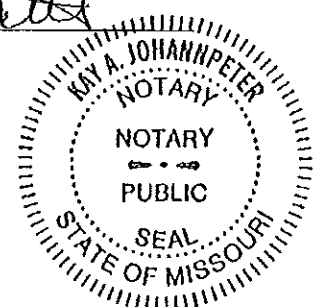
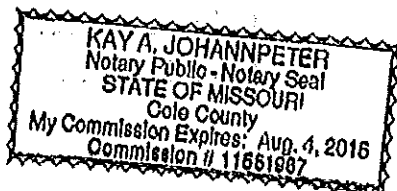


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1 **I. INTRODUCTION**

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

3 A. John Buchanan, Missouri Department of Economic Development, Division of Energy, 301  
4 West High Street, Suite 720, Jefferson City, Missouri.

5 **Q. What is the Division of Energy?**

6 A. The Division of Energy ("DE") is a division of the Missouri Department of Economic  
7 Development ("DED") and is the designated state energy office in Missouri responsible for  
8 the administration of several federal programs and grants including the federal Low Income  
9 Weatherization Assistance Program ("LIWAP"). The DE is also responsible for  
10 administering the federal State Energy Program ("SEP") established by the United States  
11 Congress in 1978, which is managed nationally by the United States Department of Energy  
12 ("USDOE"). The SEP consists of several statewide energy efficiency programs administered  
13 by the DE and funded by the USDOE. The DE is vested with the powers and duties set forth  
14 in Section 640.150, RSMo.

15 **Q. What is your position with the Missouri Division of Energy?**

16 A. I am the Senior Planner in the DE's Energy Policy and Resources Program.

17 **Q. On whose behalf are you testifying?**

18 A. I am testifying on behalf of the DE, an intervenor in these proceedings.

19 **Q. Please describe your educational background and business experience.**

20 A. I joined the Missouri Department of Natural Resources' ("DNR") DE in July of 1980 as  
21 director of the Missouri Residential Conservation Service Program, a congressionally  
22 mandated investor-owned electric and natural gas utility Demand Side Management

1 initiative. In 1986, I was promoted to serve as the Senior Planner within the Director's  
2 Office at the DE. In this capacity, I was involved in a variety of programs and projects  
3 addressing energy, environmental, and natural resource issues. In October 1995, I was  
4 appointed as a Senior Planner within the Policy and Planning Unit at the DE where my  
5 responsibilities include preparation of testimony filed in general rate or other cases by the  
6 DNR before the Missouri Public Service Commission ("Commission"), energy efficiency  
7 program design and development, energy emergency planning, energy supply and price  
8 monitoring and energy-related policy development. Governor Jay Nixon by Executive Order  
9 13-03 transferred the DE from the DNR to the DED effective August 28, 2013. Prior to my  
10 employment with the DNR, I served as Special Assistant to the Mayor, City of Columbia,  
11 Missouri for two years. I have a Bachelor of Arts degree in Political Science from Columbia  
12 College. I am a former Fellow of Missouri University, where I received my Master of  
13 Science in Public Administration.

14 **Q. Are you currently working with Missouri utilities to implement energy efficiency**  
15 **initiatives?**

16 **A. Yes.** Since 1980 I have worked directly with investor-owned regulated electric and natural  
17 gas utilities on several energy efficiency initiatives including the federal Residential  
18 Conservation Service Program established by Congress. This was the first nationwide utility-  
19 sponsored non-low income residential energy efficiency program under the guidance of the  
20 USDOE. The DE is a charter member of several electric and natural gas energy efficiency  
21 collaboratives authorized by the Commission. I serve as the designated DE representative on  
22 the following utility efficiency collaboratives:

- 1) Ameren Missouri (“Ameren” or “the Company”);
- 2) Empire District Gas Company;
- 3) Laclede Gas Company;
- 4) Liberty Utilities (formerly Atmos Energy Corporation); and,
- 5) Missouri Gas Energy.

## II. PURPOSE AND SUMMARY OF TESTIMONY

### **Q. What is the purpose of your direct testimony in these proceedings?**

A. The purpose of my direct testimony is to address the biennial evaluation of the Ameren weatherization program authorized by the Commission in ER-2007-0002<sup>1</sup>, ER-2011-0028<sup>2</sup> and Case No. ER-2012-0166<sup>3</sup>. I will specifically offer testimony regarding:

- (1) The need to discontinue biennial evaluations following the “second” evaluation of the Ameren Missouri weatherization program scheduled for completion on July 31, 2015; and,
- (2) Requested changes to Ameren’s tariff.

<sup>1</sup> Missouri Public Service Commission Case No. ER-2007-0002, *In the Matter of Union Electric Company d/b/a AmerenUE’s Tariffs Increasing Rates for Electric Service Provided to Customers in the Company’s Missouri Service Area*, Report and Order, June 1, 2007, page 112 – 113.

<sup>2</sup> Missouri Public Service Commission Case No. ER-2011-0028, *In the Matter of the Tariff Filings of Union Electric Company, d/b/a Ameren Missouri, to Increase Its Revenues for Retail Electric Service*, Nonunanimous Stipulation and Agreement Regarding Low Income Weatherization Evaluation, May 18, 2011, page 1 – 2.

<sup>3</sup> Missouri Public Service Commission Case No. ER-2012-0166, *In the Matter of Union Electric Company, d/b/a Ameren Missouri’s Tariff to Increase Its Annual Revenues for Electric Service*, Nonunanimous Stipulation and Agreement Regarding Low Income Weatherization Program, October 15, 2012, page 1 – 3.

1 III. RECOMMENDATIONS REGARDING AMEREN MISSOURI'S BIENNIAL  
2 WEATHERIZATION PROGRAM EVALUATION  
3

4 Q. What recommendations do you have regarding Ameren Missouri's biennial  
5 weatherization program evaluation?

6 A. To assist Ameren in its continuing efforts to address the needs of low income residential  
7 customers and to help improve or reduce energy consumption that may lead to lower utility  
8 bills and timely utility bill payments, the DE recommends that the Commission:

9 (1) Order the discontinuation of future evaluations of the Ameren weatherization program  
10 following the scheduled completion of the July 31, 2015 "second evaluation" identified  
11 in the Nonunanimous Stipulation and Agreement Regarding Ameren Missouri's Low  
12 Income Weatherization Program from Case No. ER-2012-0166;

13 (2) Require Ameren to discontinue withholding \$60,000 from the \$1.2 million that it  
14 receives annually from ratepayers to hire an Evaluation, Measurement and Verification  
15 (EM&V) contractor for future evaluations;

16 (3) Require Ameren to return any withheld funds that are in excess of amounts needed to  
17 support evaluation contractor expense to be used to provide low income weatherization  
18 services;

19 (4) Authorize the removal of paragraph 5. within Ameren's current tariff sheet 175 in the  
20 section titled, "ENERGY EFFICIENCY AND DEMAND SIDE MANAGEMENT  
21 PROGRAMS", subsection titled "WEATHERIZATION PROGRAM" referencing the  
22 weatherization evaluation; and,

23 (5) Authorize recommended changes to Ameren's tariff.

1 **IV. FEDERAL LOW INCOME WEATHERIZATION ASSISTANCE PROGRAM**  
2

3 **Q. Please describe the federal Low Income Weatherization Assistance Program.**

4 A. In response to the energy crisis of the early 1970s, Congress established the federal Low-  
5 Income Weatherization Assistance Program (“LIWAP” or “Weatherization”). As Missouri’s  
6 state energy office, the DE administers the federal program. The Weatherization program  
7 provides cost-effective energy-efficient home improvements to Missouri’s low income  
8 households, especially the elderly, children, those with physical disadvantages, and others hit  
9 hardest by high utility costs. The program aims to lower utility bills and improve comfort  
10 while ensuring health and safety. Today, Weatherization is the nation’s largest residential  
11 energy efficiency program. Since its inception in 1977, over 180,000 Missouri homes have  
12 been weatherized through the LIWAP.

13 The Weatherization program utilizes a “whole house retrofit” approach to building  
14 improvement. Participating houses undergo a thorough energy audit for leaks and  
15 substandard or malfunctioning equipment (such as heaters), followed by repairs and  
16 equipment replacement conducted by trained Weatherization professionals. After repairs are  
17 complete, a second home audit is performed to verify that retrofits were installed properly.  
18 Work on eligible homes is performed by 19 subgrantees, which consist of Community Action  
19 Agencies or local non-profit agencies situated to serve every region of Missouri. DE  
20 administers the grant from USDOE and liaisons with the USDOE for receipt, processing and  
21 administration of the federal grant funds. DE processes all required reporting and responds to  
22 federal and state auditors. DE also administers the subgrant process by which funds are  
23 provided to the local agency subgrantees by obtaining budgets, allocating funds and drafting



1 subgrant documents for execution by DE and each agency. Once subgrants are executed, DE  
2 provides technical and fiscal training, technical monitoring (desk reviews and field  
3 inspections) and fiscal oversight (desk and on-site review of agency processes and program  
4 compliance) of the subgrantees.

5 **Q. What are the current sources of funding to weatherize homes of low-income residents of**  
6 **Missouri?**

7 A. Funding comes primarily from two sources<sup>4</sup>, the federal government and four Missouri  
8 utilities. Funding from federal sources is part of the DE's allocation from the USDOE, under  
9 a formula allocation based on population, local climatic conditions, and the cost of heating  
10 and cooling for low-income residences.<sup>5</sup>

11 The second source of funding is from Missouri investor-owned electric and natural gas  
12 utilities. DE administers utility weatherization funds approved by the Commission in various  
13 cases for four utilities (Ameren Missouri - electric and gas, Laclede Gas Company and  
14 Liberty Gas). DE administers the utility weatherization funds consistent with the guidelines  
15 of the federal USDOE Weatherization program. Regardless of source, funds are passed  
16 through the DE to the various subgrantees to provide vital weatherization services, under  
17 federal administrative guidelines, throughout the state. Utility weatherization funds are used  
18 to improve the energy efficiency and health and safety of homes of eligible utility customers  
19 in their respective service territories.

20 **Q. Are there weatherization utility fund sources that are not administered by the DE?**

---

<sup>4</sup> Low Income Heating Energy Assistance Program (LIHEAP) funds have been used in the past and will be used in the 2014/2015 LIWAP program year to weatherize homes, but have not been available on an annual basis. LIHEAP funds will not be addressed in testimony.

<sup>5</sup> See [http://www1.eere.energy.gov/wip/wap\\_allocation.html](http://www1.eere.energy.gov/wip/wap_allocation.html)

1 A. Yes. The Commission has authorized weatherization programs for Empire District Electric  
2 Company, Missouri Gas Energy, Kansas City Power & Light Company, including Kansas  
3 City Power & Light Company's Greater Missouri Operations Company. These utilities  
4 operate their weatherization program independent of Missouri's LIWAP.

5 **Q. How has DE managed its costs for Weatherization program administration, monitoring  
6 and technical assistance?**

7 A. The DE currently uses federal Weatherization funds to pay for LIWAP and utility fund  
8 source program administration, monitoring and technical assistance associated with  
9 managing the utility weatherization funds. DE conducts desk monitoring and onsite technical  
10 and administrative monitoring for all weatherization grants.

11 **Q. How has DE administered utility weatherization funds?**

12 A. DE has administered all utility weatherization funds in conjunction with the federal  
13 Weatherization program and subject to USDOE administrative and financial guidelines. All  
14 utility weatherization funds have been provided directly to local agencies through subgrant  
15 agreements.

16 **Q. Does Ameren's annual weatherization payment of \$1.2 million include an allocation for  
17 DE's administrative, T&TA costs or program evaluations?**

18 A. No, however, \$60,000 is withheld by Ameren each year from the \$1.2 million for Ameren to  
19 hire an evaluation contractor.

20  
21  
22

1 **V. AMEREN MISSOURI'S WEATHERIZATION PROGRAM**  
2

3 **Q. Please describe Ameren Missouri's Weatherization Cooperation and Funding**  
4 **Agreement.**

5 A. On August 14, 2007 Ameren Missouri, the Missouri Department of Natural Resources (now  
6 the DE), and Missouri Public Service Commission entered into an agreement to fund  
7 Weatherization activities in Ameren's service territory in Case No. ER-2007-0002. This  
8 agreement provided \$1.2 million annually, to be deposited in an account maintained by  
9 Environmental Improvement and Energy Resources Authority (EI ERA). It is DE's  
10 responsibility to allocate these funds to the 13 Weatherization agencies operating in  
11 Ameren's service territory. This agreement has been amended several times; most recently  
12 to provide funds for a biennial program evaluation agreed to in Case No. ER-2011-0028 and  
13 Case No. ER-2012-0166, but the annual amount of Ameren's contribution has not changed  
14 since the inception of the program.

15 **Q. Does Ameren, in any way, co-administer the weatherization program?**

16 A. No. Ameren provides a one-time annual payment to the EI ERA and receives quarterly  
17 updates from the DE on program expenditures and weatherization services completed.

18 **Q. Does Ameren co-administer the weatherization program with agencies that provide**  
19 **weatherization services in their service territory?**

20 A. No.  
21

1 **VI. AMEREN MISSOURI'S BIENNIAL WEATHERIZATION EVALUATION**  
2

3 **Q. Have prior Ameren weatherization program evaluations been completed?**

4 A. Yes. In December 2009, Applied Public Policy Research Institute for Study and Evaluation  
5 completed an evaluation of the Ameren Low-Income Weatherization Program as authorized  
6 by Case No. ER-2007-0002. In July 2012, the Cadmus Group, Inc. completed a similar  
7 evaluation as authorized by Case No. ER-2011-0028.

8 **Q. Has Ameren withheld funds to support these evaluations?**

9 A. Yes. Ameren has withheld \$360,000, to date, to hire contractors to complete these evaluation  
10 projects or the equivalent of approximately 180 homes that would have received  
11 weatherization services (at an average cost of \$2,000/unit<sup>6</sup>). The diversion of these funds to  
12 complete these program evaluations results in the need to spend a higher level of federal  
13 funds or other local funds to complete weatherization services for Ameren's low income  
14 customers.

15 **Q. When is the next biennial Ameren weatherization evaluation scheduled for completion?**

16 A. The evaluation must be completed no later than July 31, 2015. As of the December 10, 2014  
17 meeting of the Ameren Energy Efficiency Collaborative ("EEAC") regarding this evaluation,  
18 Ameren will select a contractor and initiate a formal agreement after January 1, 2015.

19 **Q. Are these biennial weatherization evaluations subject to a sunset provision?**

20 A. No. These biennial evaluations, and associated \$60,000 per year of customer-provided fund  
21 withholdings, may continue indefinitely.

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<sup>6</sup> The average amount of Ameren weatherization funds combined with other fund sources, including federal LIWAP, used to complete weatherization services to a low-income customer's home served by Ameren. The total average weatherization investment to a low-income customer's home served by Ameren is approximately \$6,000.

1 Q. What were the findings of the December 2009 Applied Public Policy Research Institute  
2 for Study and Evaluation weatherization evaluation report authorized in Case No. ER-  
3 2007-0002?

4 A. The report noted the program “benefited them (low income customers) by reducing their  
5 bills, improving the safety and comfort of their home, lowering their energy use, and  
6 improving energy education.”<sup>7</sup>

7 Q. Did the evaluation report contain recommendations?

8 A. The report included 14 recommendations under 4 categories: 1) Program Management,  
9 Administration and Procedures; 2) Agency Weatherization Staff Training; 3) Program  
10 Impact; and, 4) Satisfaction.

11 Q. Were any of the report recommendations formally adopted?

12 A. For the most part, no.

13 Q. Please explain.

14 A. The report included recommendations to continue certain activities such as on-going training  
15 and technical support, continuation of health and safety measures, and to maintain joint  
16 program implementation through DE. These recommendations did not require formal  
17 adoption. The report, however, reflected certain recommendations that were not addressed in  
18 an EEAC meeting and, consequently, were never fully implemented. For example, the report  
19 recommended that:

20 Ameren could provide a program information sheet for agencies to distribute during the  
21 energy audit with energy efficiency tips and Ameren’s logo.<sup>8</sup>  
22

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<sup>7</sup> Ameren Low-Income Weatherization Program Final Evaluation Report, Applied Public Policy Research Institute  
for Study and Evaluation, December 2009, page E12.

<sup>8</sup> *Ibid.*, page E14.

1 Such material is not being distributed by weatherization agencies.

2  
3 Also, the report reflected the recommendation,

4 Revise the rules for expenditure of Ameren program funds so that electric usage  
5 reduction measures are allowed and emphasized.<sup>9</sup>

6  
7 This recommendation was not formally addressed by the EEAC.

8 DE administers the Ameren weatherization funds in accordance with USDOE rules and  
9 regulations. All weatherization funding administered through DE follows USDOE guidance  
10 which helps in the ease of program administration.

11 **Q. What were the findings of the July 2012 Cadmus Group, Inc. weatherization program  
12 evaluation report authorized in Case No. ER-2011-0028?**

13 **A. The study found weatherization saves energy. According to the report,**

14 This analysis revealed that, on average, program participants decreased their annual  
15 energy consumption by 1,877 kWh. This represents approximately 12% savings over  
16 their pre-program annual electricity consumption.<sup>10</sup> Further, the program proved cost-  
17 effective from the total resource cost (TRC) test and the Utility Cost Test (UCT)  
18 perspectives ...<sup>11</sup>

19  
20  
21 Weatherization assistance is not required to be cost-effective through traditional TRC, UCT  
22 or other benefit/cost analysis. Weatherization assistance provides other benefits such as  
23 health, safety, comfort and education.

24 **Q. Did the evaluation report contain recommendations?**

25 **A. The report included 7 recommendations.**

26 **Q. Were any of the report recommendations formally adopted?**

27 **A. Again, for the most part, no.**

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<sup>9</sup> *Ibid*, page E13.

<sup>10</sup> Residential Low Income Weatherization Program Evaluation, The Cadmus Group, Inc., July 2012, page 3.

<sup>11</sup> *Ibid*, page 4.

1 **Q. Please explain.**

2 A. The report reflected certain recommendations that were not addressed by the EEAC and,  
3 consequently, were never fully implemented. For example, the report recommended  
4 "Increase Ameren Missouri sponsorship awareness through leave-behind materials."<sup>12</sup>  
5 Another report recommendation, "Collaboratively assess the potential addition of new  
6 electric measures."<sup>13</sup> These recommendations were not formally addressed by the EEAC.  
7 DE administers the Ameren weatherization funds in accordance with USDOE rules and  
8 regulations. All weatherization funding administered through DE follows USDOE guidance  
9 which helps in the ease of program administration.

10 **Q. Do you have concerns regarding future and on-going biennial Ameren weatherization**  
11 **evaluations?**

12 A. Yes, there are aspects of this evaluation process that raises concern:

- 13 • Funds to support the evaluation process are drawn from funds originally targeted for  
14 weatherization services. This means that the biennial evaluation is completed at the  
15 expense of low-income customers served by Ameren. The \$360,000 withheld to date  
16 for the biennial evaluations represents approximately 180 low income households that  
17 may have otherwise received Ameren funded weatherization services.
- 18 • There is no sunset provision. This biennial weatherization evaluation can be  
19 performed into perpetuity.
- 20 • Prior evaluation recommendations have not been discussed by the EEAC nor  
21 implemented. In the absence of formally adopted program recommendations and

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<sup>12</sup> *Ibid*, page 5.

<sup>13</sup> *Ibid*, page 5.

1 without adequate time for such recommendations to operate within a period of 2 years  
2 or less between biennial evaluations, the usefulness of subsequent evaluations is  
3 questionable.

- 4 • This biennial evaluation addresses one of only four utility funded weatherization  
5 programs administered by the DE. In fact, the focus of this evaluation process is not  
6 on Ameren's weatherization program but the federal Weatherization program  
7 administered within the Ameren service territory.

8  
9 **VII. TARIFF REVISIONS**  
10

11 **Q. Is there a specific revision to Ameren's current tariff sheet 175 that you request?**

12 **A. Yes. In the section titled, "ENERGY EFFICIENCY AND DEMAND SIDE MANAGEMENT**  
13 **PROGRAMS", subsection titled "WEATHERIZATION PROGRAM", there is a reference to**  
14 **the Department of Natural Resources within paragraph 1. and paragraph 4. I request be**  
15 **changed to read "Department of Economic Development – Division of Energy." The**  
16 **Division of Energy was formerly a part of the Department of Natural Resources, but was**  
17 **transferred to the Department of Economic Development (DED) on August 29, 2013 by**  
18 **Executive Order 13-03. The Executive Order transfers "all authority, powers, duties,**  
19 **functions, records, personnel, property, contracts, budgets, matters pending, and other**  
20 **pertinent vestiges of the Division of Energy from the Missouri Department of Natural**  
21 **Resources to the Missouri Department of Economic Development...." The Division of**  
22 **Energy is a charter member of the EEAC and continues in that role after the transfer.**  
23



1 **Q. Please summarize your testimony.**

- 2 • Significant strides have been made by investor-owned electric utilities, including  
3 Ameren, to successfully implement cost-effective energy efficiency programs in  
4 Missouri. These investments should continue to be strongly supported at adequate  
5 levels to ensure their on-going success. The DE respectfully recommends, therefore,  
6 that the Commission address and authorize the following:
- 7 • Order the discontinuation of future evaluations of the Ameren weatherization  
8 program following the scheduled completion of the July 31, 2015 “second  
9 evaluation” identified in the Nonunanimous Stipulation and Agreement Regarding  
10 Ameren Missouri’s Low Income Weatherization Program from Case No. ER-2012-  
11 0166;
- 12 • Require Ameren to discontinue withholding \$60,000 from the \$1.2 million that it  
13 receives annually from ratepayers to hire an Evaluation, Measurement and  
14 Verification (EM&V) contractor for future evaluations;
- 15 • Require Ameren to return any withheld funds that are in excess of amounts needed to  
16 support evaluation contractor expense to be used to provide low income  
17 weatherization services;
- 18 • Authorize the removal of paragraph 5. within Ameren’s current tariff sheet 175 in the  
19 section titled, “ENERGY EFFICIENCY AND DEMAND SIDE MANAGEMENT  
20 PROGRAMS”, subsection titled “WEATHERIZATION PROGRAM” referencing  
21 the weatherization evaluation; and,
- 22 • Authorize recommended changes to Ameren’s tariff.

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

2 **A. Yes. Thank you.**