

Exhibit No.:
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Expenses
Witness: Adam Bickford
Sponsoring Party: Missouri Department of Natural
Resources – Division of Energy
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File No.: ER-2012-0166

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

September 7, 2012

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

UNION ELECTRIC COMPANY, d/b/a AMEREN MISSOURI

FILE NO. ER-2012-0166

**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 Electric Service.)

Case No. ER-2012-0166

AFFIDAVIT OF ADAM BICKFORD

STATE OF MISSOURI

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CITY OF JEFFERSON

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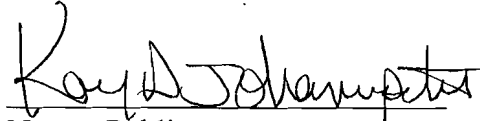
)

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 Planner III.
2. Attached hereto and made a part hereof for all purposes is the Public version of my Surrebuttal Testimony on behalf of the Missouri Department of Natural Resources' Division of Energy, consisting of 18 pages of testimony and 1 schedule, 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 7th day of September, 2012.


Notary Public

My commission expires:

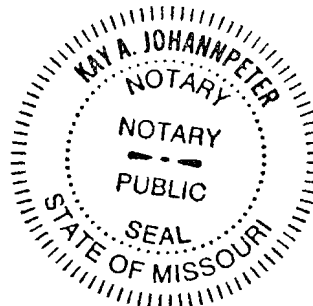
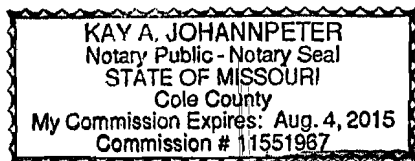


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I. Introduction

Q. Please state your name and business address.

A. My name is Adam Bickford. My business address is Missouri Department of Natural Resources, Division of Energy, 1101 Riverside Drive, P.O. Box 176, Jefferson City, Missouri 65102-0176.

Q. Are you the same Adam Bickford that filed Direct Testimony in this case?

A. Yes I am.

Q. What is the purpose of your testimony?

A. I wish to respond to the rebuttal testimony of Mr. Greg Lovett of Ameren Missouri (or "Ameren"), Dr. Henry Warren of the PSC Staff, and Mr. Ryan Kind of the Office of Public Counsel. Each of these witnesses recommended that the Commission reject MDNR's request that to increase the amount collected from rate payers for the Low-Income Weatherization program by \$120,000 each year to cover MDNR's administrative costs.

II. Availability of ARRA and Department of Energy Funds for Weatherization

Q. Mr. Lovett and Mr. Kind each question whether ARRA and Department of Energy Weatherization funds are available to cover the administrative costs MDNR is requesting. Are there non-Ameren funds available to cover MDNR's administrative expenses?

A. ARRA Weatherization funds will be fully expended by March 31, 2013.. As of August 31, 2012, 95% of ARRA Weatherization funds have been expended. The ARRA grant expires March 31, 2013 with no subgrantee home production allowed after December 31, 2012. No new regular Department of Energy (DOE) funding

1 was received for Program Year 2012 (PY2012). The subgrantees and MDNR are
2 sustaining the Weatherization program from carryover funds from Fiscal Year 2012
3 (FY2012).

4 With respect to regular (non-ARRA) DOE Weatherization funds, there is no
5 indication from that DOE funding for the Weatherization program will increase; in
6 fact cuts are very likely. While it has been MDNR's practice to utilize DOE funds to
7 administer the utility funded Weatherization programs, it will be increasingly difficult
8 to administer the utility grants in future years as DOE Weatherization dollars are
9 dramatically decreasing.

10 According to the DOE Weatherization Program Notice 2012-02:

11 Congress has passed and the President has signed the FY 2012 Energy and
12 Water Appropriations Act, Pub. L. 112-74. The FY 2012 Appropriations Act
13 funds Weatherization at \$68,000,000. This funding level is less than one-third
14 of that recently provided annually through Appropriations for WAP. Congress
15 also provided the DOE Secretary authority to waive the allocation formula
16 established in the WAP regulations for Program Year 2012.

17
18 DOE has determined that an appropriation level of \$68 million cannot sustain
19 an effective national Weatherization program using the regulatory formula to
20 allocate funds. The Secretary is exercising the provided authority and funds
21 are being allocated in an effort to provide States WAP funding in PY 2012 at
22 a level comparable to funding levels prior to the Recovery Act, with
23 consideration of carry-over funding available to States and the funding level
24 provided through FY2012 appropriations. There will be Grantees that will
25 receive no new DOE funding for FY 2012.¹

26
27 Of the 59 Weatherization Assistance Program (WAP) grantees(states and
28 territories), 26 received no funding for PY2012. Of the 33 WAP grantees that did
29 receive funding, the average allocation was approximately \$2 million. Missouri had

¹ See Direct Testimony of Adam Bickford, File No. ER-2012-0166, Schedule AB-1.

1 approximately \$10 million in regular DOE carryover funds from Federal Program
2 Year 2011, from July 1, 2012 through June 30, 2013.

3 Although it has been MDNR's practice to utilize DOE funds to administer the
4 utility funded Weatherization programs, it will be increasingly difficult to do so in
5 future years as DOE Weatherization dollars are dramatically decreasing. This
6 practice began as a default because the federal funds were the only ones available
7 to support Weatherization administrative activities. It is appropriate for funds to be
8 provided to support MDNR's efforts to administer a high quality Weatherization
9 program with fiscal accountability and proven results that will benefit Ameren
10 customers, either by direct effects of a weatherized home or the benefits of reduced
11 system energy demand, environmental improvements and lower arrearages and
12 uncollectible accounts. In addition, the Staff and OPC are funded through
13 ratepayer funding via utility assessments which are built into rates, so the notion of
14 ratepayer funding for administrative expenses that support efforts in the interest of
15 ratepayers is not foreign to the regulatory process. To the extent the Commission
16 has approved Weatherization funding, and the costs of evaluation of the program,
17 extending the funding to cover the necessary administrative activities performed by
18 MDNR seems a logical and appropriate step. If the Commission approves
19 administrative funding for MDNR in this case, we anticipate processing the funds
20 through EI ERA, and MDNR will gladly work with the DSM advisory group on the to
21 establish appropriate procedures for recording activities and processing payments
22 for administrative funds, much as the original Collaborative Committee, and the
23 signatories to the original Cooperative and Funding agreement resolved procedural

1 and logistical issues when the Ameren Weatherization fund was initially established
2 in Case No. EC-2002-1 (HEW-1, pp. 42-46).

3 **III. Response to Mr. Greg Lovett, Ameren Missouri**

4 **Q. Ameren witness Greg Lovett raised many issues from the Apprise and**
5 **Cadmus evaluations of the Weatherization program supported by Ameren**
6 **funds. Do you have any response?**

7 A. Yes. Mr. Lovett discusses several points about the portion of the Missouri
8 Weatherization program supported by Ameren funds. These points are based on
9 the recommendations from the two previous evaluations of the Weatherization
10 program, the first conducted by Apprise in 2009 and the second conducted by the
11 Cadmus Group in 2012. Many of Mr. Lovett's points are based on the
12 recommendations of the Apprise evaluation. MDNR's implemented these
13 recommendations, some of which were reported on in the Cadmus Group
14 evaluation.

15 **Q. What points did Mr. Lovett raise from the Apprise evaluation?**

16 A. Mr. Lovett identified three points from Apprise evaluation:

- 17 • Revise the rules for expenditure of Ameren Missouri program funds so that
- 18 electric usage reduction measures are allowed and emphasized.
- 19 • Provide a program information sheet for agencies to distribute during the energy
- 20 audit with Ameren Missouri's logo.
- 21 • MDNR, as administrator of the program, should develop a database for
- 22 agencies to collect and manage the program data. This data will be useful for
- 23 both program management and future program evaluation efforts.²
- 24

25 Mr. Lovett claimed that "none of the above recommendations have been fully
26 implemented, based on the 2012 evaluation conducted by The Cadmus Group."

² Rebuttal Testimony of Greg Lovett, File No. ER-2012-0166, p. 3

1 **Q. Do you agree with Mr. Lovett's claims?**

2 A. No. First, it is important to remember that the Ameren weatherization funds are
3 administered consistent with the federal DOE Weatherization Program guidelines
4 pursuant to Commission order in Case No. EC-2002-1. With respect to the first
5 point, MDNR authorized the use of federal weatherization funds for replacement of
6 electric measures such as refrigerators and air conditioners at the beginning of the
7 ARRA Weatherization program. For example, MDNR's Weatherization Program
8 Operations Manual contains the following rule:

9 Central air conditioners, heat pumps and room air conditioners may be
10 repaired or replaced as a health and safety measure provided that the
11 occupant can provide a letter from a licensed physician stating that the
12 occupant's health and safety would be in danger without a functioning air
13 conditioning unit. All documentation pertaining to the health and safety
14 (i.e. letter, etc.) must be included in the Client File.³
15

16 Refrigerator replacement was authorized in 2009 and air conditioner installation
17 was authorized in 2010. However, installation of each appliance is subject to
18 expenditure limits specified by the DOE. Before ARRA, under federal regulations
19 the average per-house expenditure limit was \$3,000. During the ARRA period, the
20 average per-house expenditure limit increased to \$6,500. In the 2012 program
21 year, the average per-house expenditure limit increased to \$6,769.⁴ The higher
22 expenditure limits allowed for installation of a much broader range of electric
23 measures.

24 Subgrantees are encouraged to utilize all energy efficiency measures such
25 as refrigerators, compact fluorescent light-bulbs, air conditioners, and furnaces and

³ Department of Natural Resources, Division of Energy. *Weatherization Program Operational Manual*. Section 3, Subsection VIII, Part D. Base load Measures. p. 115. June 1, 2010

⁴ U.S. Department of Energy, Weatherization Program Update Notice 12-1, p. 7.

1 any new measures that may become available, as long as subgrantees stay within
2 the DOE's expenditure limits. However, it is the decision of each subgrantee to
3 determine what energy conservation measures will be installed in each home
4 based on use of DOE's National Energy Audit Tool (NEAT Audit). With the
5 exception of health and safety reasons, all measures must be cost-effective as
6 determined by the NEAT Audit.

7 Mr. Lovett is interprets the Apprise recommendation to request an exception
8 for homes in the Ameren service territory. This runs counter to the cooperative
9 agreement governing Ameren's funds, which states that "Monies from the Fund will
10 be spent in a manner consistent with the Federal Weatherization Assistance
11 Program as administered by MDNR."⁵

12
13 **Q. On Page 3 of his testimony, Mr. Lovett makes the following statement: "For**
14 **example, CAAs have reported that replacement of electric measures,**
15 **such as air conditioners and electric furnaces, seldom receive approval**
16 **from MDNR, even with a doctor's note verifying that they are needed for**
17 **health reasons." What is your response to Mr. Lovett's statement?**

18 A. Decisions about whether to replace and install electric measures are made by
19 individual subgrantees. Subgrantees have the authority to approve or deny
20 requests for air conditioner replacements due to health and safety based on the
21 physicians' letter provided by the client. MDNR has never denied a request to
22 replace or install an air conditioning unit when the client has provided a doctor's

⁵ Cooperation and Funding Agreement, Paragraph 4(c). See Rebuttal Testimony of Henry E. Warren, File No. ER-2012-0166, Schedule HEW-1. And Commission Order in Case No. EC-2002-1.

1 letter stating that an appliance is necessary to support a homeowner's health and
2 safety.

3 **Q. What is your response to Mr. Lovett's second point, about the availability of a**
4 **program sheet identifying Ameren's contribution to the Weatherization**
5 **program?**

6 A. This recommendation from the Apprise evaluation should be primarily addressed by
7 Ameren, in conjunction with MDNR and Ameren's DSM advisory group. Neither
8 MDNR nor the subgrantees have discussed, or been presented with, materials to
9 distribute to customers receiving weatherization services which are partly funded
10 with Ameren weatherization funding. If a program sheet is developed and language
11 regarding Ameren's contribution to the weatherization program is agreed to, MDNR
12 is willing to work with its weatherization subgrantees to arrange distribution.
13 However, I would note that Ameren's rate payers provide the funding for the
14 Weatherization program.

15 **Q. Mr. Lovett's third point from the Apprise evaluation concerns the**
16 **implementation of a program database. Has MDNR implemented such a**
17 **database?**

18 A. Yes. Mr. Lovett is referring to the MoWAP database. Planning for this database
19 began in 2008 and it was launched in 2010. This database was not developed in
20 response to the Apprise evaluation; it was in the planning and implementation
21 stages before the Apprise evaluation was published. MoWAP was developed to
22 improve the efficiency of MDNR's administration of the DOE Weatherization
23 program and quality and quantity of data that would be available for use in meeting

1 the demanding reporting requirements of the federal program. Development of the
2 MoWAP database was very expensive and time consuming and was accomplished
3 without use of any utility weatherization funds. Use of this database began in
4 September, 2010 to administer August, 2010 reimbursements. The availability of
5 this database for utility weatherization inquiries and evaluation is incidental to and
6 not attributable to the Apprise study. Ameren was made aware well before the
7 Cadmus evaluation started that any data the evaluator would request that related to
8 any date prior to September 2010 was available only upon manual search. To the
9 extent that Cadmus was unaware of this fact, it is Ameren's responsibility, not
10 MDNR's.

11 **Q. Was Ameren made aware of the development of this database?**

12 A. Yes. Ameren was aware of the development of the MoWAP database system. A
13 tremendous amount of effort has gone into making this system an operable and
14 useful tool for the Weatherization network. MDNR is working with the Office of
15 Administration for increased reporting capability and other improvements. MDNR
16 anticipates this will be a long term process as we will want to continue to develop
17 and improve this important database.

18 The MoWAP database records detailed client level data, including measure
19 specific information, reported on the client file's work order. This information
20 reported on the work order includes: the client's name and contact information, the
21 work provider and work start and end dates, change order information, detailed
22 work order information, and whether or not the measure passed inspection. DOE
23 has not provided a standardized list of energy conservation measures that can be

1 performed as part of the LIWAP. Due to the vast and unknown number of measures
2 that are possible to report for reimbursement, the work order "Measure Name" field
3 is user defined, while the "Measure Type" field is standardized in 10 categories
4 such as Building Insulation, HVAC Systems, etc. While the measure name is
5 recorded in MoWAP's database, the reporting quality is diminished due to the
6 variety of information entered into the "Measure Name" field. The "Measure Type"
7 field is standardized, and is easily reported.

8 **Q. What were Mr. Lovett's criticisms about the MDNR database?**

9 A. Mr. Lovett claimed that the contents of the MDNR database did not collect
10 measure-level detail sufficient to allow Cadmus to calculate measure-level cost-
11 effectiveness measures. He stated that:

12 The lack of this data negatively impacted the 2012 evaluation to the extent that
13 the scope of the Cadmus Evaluation needed to be reduced from the original
14 evaluation plan. Cadmus anticipated having specific data on measures that
15 were installed at each participant's home, similar to the level of detail they see in
16 the databases for other Ameren Missouri energy efficiency programs. When
17 Cadmus learned that the anticipated level of detail was not available, they had
18 to eliminate their plan to develop measure level savings and Total Resource
19 Cost ("TRC") results.⁶

20
21 **Q. What is your reaction to Mr. Lovett's criticisms?**

22 A. I think that Mr. Lovett is overstating the severity of this problem. While it is true that
23 the measure-level detail available from the Weatherization programs is not as
24 detailed as Ameren may desire, it should be remembered that MoWAP was
25 developed to comply with DOE requirements, not to satisfy the preference of the
26 utilities or its contractors. Since the Ameren weatherization funds are required to
27 be administered consistent with the federal Weatherization program, and the

⁶ Rebuttal Testimony of Greg Lovett, File No. ER-2012-0166, p. 4.

1 MoWAP database meets those requirements, its structure should be acceptable by
2 Ameren and its evaluation contractors.

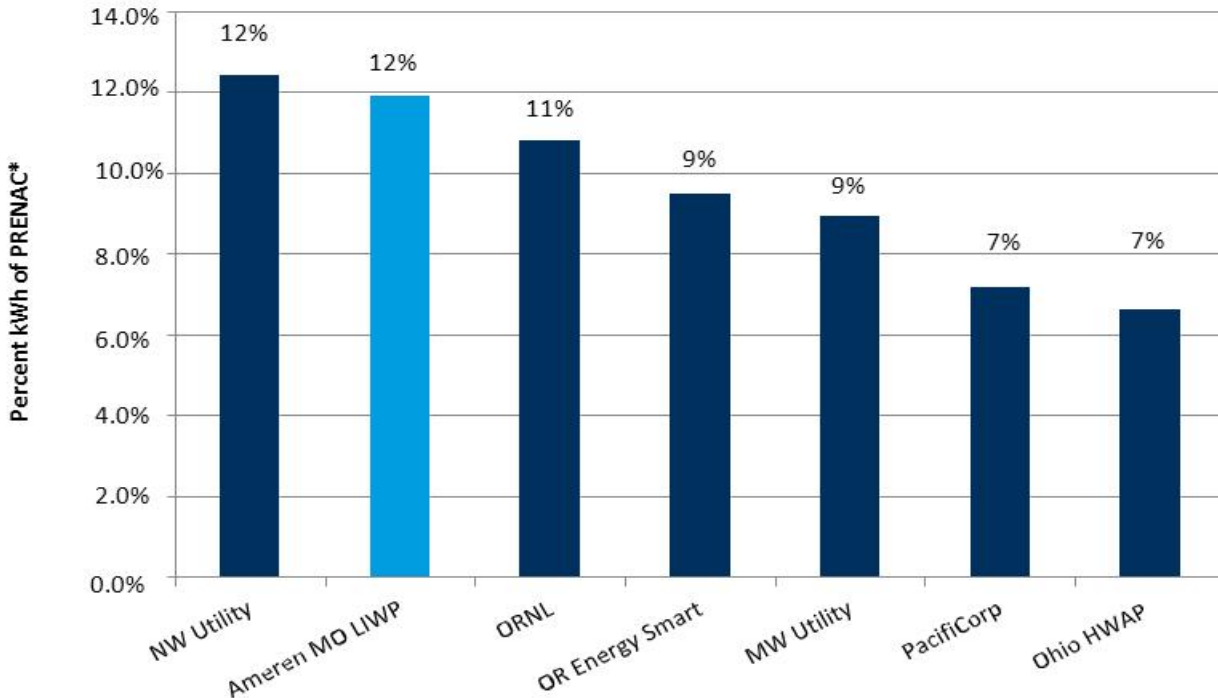
3 With respect to Ameren's DSM programs, Ameren is accustomed to
4 specifying which measures are installed and is able to provide a complete
5 accounting of installed measures to its evaluators. The situation of the
6 Weatherization stakeholders is not as simple. Each stakeholder organization is an
7 independent entity that is working to meet the DOE's program requirements. In
8 designing the MoWAP database, MDNR and the subgrantees are working to meet
9 the DOE's reporting requirements. These requirements are categorical
10 requirements addressing types of home repairs, and not lists of specific measures.
11 In the MoWAP database, the measure categories are standardized to meet the
12 reporting requirements established by the DOE, while measure descriptions are
13 recorded in a text field. Subgrantees differ in the amount of measure-specific detail
14 they enter into the database. Nevertheless, this information was made available to
15 Ameren's evaluators.

16 **Q. Has reliance on the measure categories specified by the DOE prevented**
17 **evaluation of other Weatherization programs?**

18 A. No. The Cadmus evaluation compared the overall program savings from the
19 Ameren Weatherization program to a set of Weatherization evaluations conducted
20 between 2005 and 2011.⁷ The comparison revealed that the 12% energy savings
21 attributed to Ameren's Weatherization program was equal to the highest level of
22 savings in Figure 1 (reproduced below).

⁷ The Cadmus Group, 2012. Residential Low Income Weatherization Program Evaluation, Figure 1 and Table 17, p. 18.

Figure 1. Savings Comparison to Other Electric Low Income Programs



Source: Cadmus Group 2012, "Residential Low Income Weatherization Program Evaluation", p. 18

*PRENAC: pre-period normalized annual consumption (pre-NAC, see Cadmus, 2012, p. 14)

2 Table 17 from the Cadmus report indicated that four of the six studies cited in
 3 Figure 1 are publically available. The contents of Table 17 and the results of
 4 MDNR's review of each available evaluation are presented in Schedule AB-S1.
 5 The results of this review indicate that **none** of the evaluation studies report the
 6 measure-level savings that Mr. Lovett criticizes MDNR's database for not being
 7 able to provide. It is also important to note that three of the four available
 8 evaluations listed Dr. M. Sami Khawaja, the principal of the Cadmus Group, and the
 9 first author of the Ameren Weatherization evaluation, as the reports' first author.

10 **Q. What conclusions do you draw from Schedule AB-S1?**

1 A. The materials provided by the Cadmus Group indicate measure-specific results are
2 not typically provided by Weatherization evaluations. Mr. Lovett's criticism of
3 MDNR for not being able to provide measure-specific data is not appropriate, and
4 would hold MDNR to a higher standard than is applied to other evaluations,
5 including those conducted by its evaluator, Cadmus. He is asking for a level of
6 specificity that none of the evaluations cited by Ameren's evaluation contactor have
7 been able to provide.

8 **Q. Do you have any response to Mr. Lovett's concerns about the program-level**
9 **TRC calculated by the Cadmus Group?**

10 A. Mr. Lovett cites a TRC value of 1.03 from the Cadmus Group evaluation, but then
11 goes on to suggest that because Cadmus' calculation does not account for the
12 administrative costs retained by the weatherization subgrantees, the "true" TRC is
13 likely lower. I wish to raise two points. First, because the Weatherization program
14 is a low-income program, it is exempt from cost-benefit considerations. Secondly,
15 the calculation of the program-level TRC in the Cadmus Group report was
16 completed by the Cadmus Group. MDNR had no role in this calculation; if Mr.
17 Lovett has issues with the calculation of this measure, it appears that his issue is
18 with the Cadmus Group.

19 **Q. Mr. Lovett raises questions about the process of allocating Ameren Missouri**
20 **funds to the CAAs. Do you have any response to his questions?**

21 A. The allocation formula has several steps and has been agreed to by the Ameren
22 collaborative committee in place when Ameren and MDNR entered into the original
23 Cooperation and Funding Agreement (CFA) after the conclusion of Case No. EC-

2002-01 (HEW-1, page 42-44). This past year, Ameren Missouri provided MDNR with an updated number of Ameren Missouri electric accounts and MDNR staff updated that information on their allocation spreadsheet. The key points in this allocation process are:

- 1) All subgrantees that have significant number of Ameren Missouri (Electric) customers receive an equal share of base funding in the amount of \$10,000
- 2) Fifty percent of the remaining funds are allocated based on the percentage of total Ameren Missouri (Electric) residential customers by agency service territory.
- 3) Fifty percent of the remaining funds are allocated based on the percentage of poverty households by agency service territory.
- 4) The collaborative group will review the allocation formula annually.⁸

Q. What response do you have to Mr. Lovett's questioning whether Ameren ratepayer funds should be spent on MDNR's administrative costs?

A. In my direct testimony I outlined the reasons for this request. Since the beginning of the Low-Income Weatherization program, MDNR has paid the cost of administering the program, i.e., conducting technical and financial audits, providing training services and statewide program oversight, through federal funds. This practice included the years since Ameren entered its CFA with MDNR. In the years since the original 2003 CFA with Ameren, MDNR has not requested assistance to support its program administration activities. However, as seen in materials presented in my direct testimony, new administrative funds for MDNR from federal sources are not available in the current fiscal year, and future federal funding is

⁸ Note that Ameren's collaborative group is no longer in place. The allocation formula is sent to Ameren for approval currently.

1 uncertain. We are asking for funds to continue the current level of program
2 oversight that MDNR provides.

3 **Q. In several points in his rebuttal testimony, Mr. Lovett states Ameren**
4 **Missouri's intent to work with MDNR and the CAAs to improve the operation**
5 **of the Weatherization program. Do you have any response to Mr. Lovett's**
6 **statements?**

7 A. Yes. This is one reason why it is imperative to obtain some administrative funds.
8 Meeting Ameren's requests for MDNR staff time and responding to information
9 requests have costs. While it has been MDNR's practice to utilize DOE funds to
10 administer the utility funded Weatherization programs, it will be increasingly difficult
11 to do so in future years as DOE Weatherization dollars are decreasing. MDNR
12 needs to cover its administrative costs not only to maintain its current level or
13 service.

15 **III. Response to Dr. Henry Warren, PSC Staff**

16 **Q. Do you have any points from Dr. Warren's testimony you would like to clarify?**

17 A. Yes. Dr. Warren mentioned that I asked for an increase of utility funds for low
18 income Weatherization in File No. ER-2012-0174 and ER-2012-0175, KCPL and
19 GMO's current rate cases, but did not ask for administrative funds for
20 weatherization in either of these cases. MDNR does not administer weatherization
21 funds for either KCPL or GMO, so it would not be appropriate to request
22 administrative funds from these companies.

1 **Q. Dr. Warren compared MDNR's Weatherization auditing function to the**
2 **evaluation activities conducted by the Cadmus Group. Are these activities**
3 **comparable?**

4 A. No. Dr. Warren is confusing MDNR's on-site and desk auditing activities with the
5 evaluation process conducted by a program evaluator. MDNR conducts a financial
6 audit, also known as a "desk audit", for each reimbursement request submitted by a
7 Weatherization agency. These audits verify how much is spent for each repair or
8 installation, verify the work orders and document the number of houses served and
9 the per-house costs. Additionally, MDNR conducts a series of on-site verification
10 visits on a subset of weatherized houses for each subgrantee. These site visits
11 involve physical entry into the home, visual verification that measures were installed
12 correctly to achieve energy efficiency and, where applicable, health and safety
13 improvements were made to the weatherized home.

14 On the other hand, when evaluation "site visits" are conducted by EM&V
15 consultants such as Apprise and Cadmus, they are conducted on a sample of
16 weatherized homes and their focus is on verifying reported energy savings. In the
17 case of the evaluations conducted for Ameren, neither evaluator conducted
18 physical site visits to weatherized homes. In the case of the Apprise evaluation a
19 sample of participants were asked to complete a survey, while in the case of the
20 Cadmus Group evaluation, a billing analysis was conducted. This type of analysis
21 compares administrative and billing records to assess energy savings. Neither of
22 the evaluations performed the detailed financial and technical review provided by
23 MDNR personnel.

1 MDNR's financial/desk audit and on-site visits functions are essential steps
2 in the operation of the Weatherization program, necessary to assure the quality and
3 accountability of the work performed by the subgrantees. They are labor-intensive
4 functions that involve detailed review of paperwork and travel to all parts of the
5 state to inspect attics, cellars, and crawl spaces. These functions are not
6 contemplated as within the scope of work of evaluation contractors.

7 **Q. Dr. Warren questioned some of the costs included in the 10% request,**
8 **specifically the funds allocated to MDNR Division of Energy personnel**
9 **classified as performing "General Administration and Management" duties in**
10 **Schedule AB-5 of your direct testimony. He also mentioned services that**
11 **Energy Division staff members who are not directly employed in the**
12 **Weatherization section provide to the weatherization program.**

13 A. To begin with, I wish to note that the total personnel time accounted for by the
14 Ameren Weatherization program is 0.86 FTE. The personnel in Schedule AB-5
15 listed under the classification "General Administration and Management" include
16 administrative assistants, the managers of the Weatherization program, and a
17 portion of the time of the managers of the MDNR Division of Energy.

18 The specific activities of the staff members listed in Dr. Warren's testimony
19 vary from reviewing grant agreements and allocations of utility funds to individual
20 subgrantees, compiling quantitative reports of subgrantee performance, integrating
21 information from MDNR's legacy reporting spreadsheets and current MoWAP
22 reports, responding to inquiries regarding subgrantee issues, addressing

1 weatherization issues in utility collaboratives and in cases before the Commission,
2 and communicating with EIERA, the subgrantees and weatherization funders.

3 **Q. Dr. Warren questioned whether it was appropriate for weatherization funds to**
4 **be used to pay for MDNR's administrative expenses. What is your response**
5 **to this question?**

6 A. It is appropriate to allow this use of funds and increase of the amount collected for
7 the Weatherization program by 10% in order to successfully administer, provide
8 oversight of the program, and to respond to extensive requests for information from
9 Ameren Missouri and contracted evaluation staff. As mentioned above, the outlook
10 for weatherization funds going forward is bleak. Without these requested funds,
11 MDNR will need to focus its efforts on the federally-funded work of the subgrantees
12 and will not be able to provide the level of services to the utility-funded efforts of the
13 subgrantees that we have traditionally provided. MDNR does not wish to reduce
14 the amount of money available to weatherize houses using Ameren funds. Rather
15 than reallocating existing funds, as has been done to fund the program evaluation,
16 MDNR is asking for additional funds to cover its expenses.

17 **IV. Response to Mr. Ryan Kind, Office of Public Counsel**

18 **Q. In his rebuttal testimony in this case, Mr. Kind states that "MDNR has not fully**
19 **explained why Missouri did not receive WAP funding from DOE for this year**
20 **(which would have included some funding for MDNR administrative costs)**
21 **when some other states apparently did." What is your response to this**
22 **question?**

1 A. Mr. Kind questions why Missouri received \$0 for Weatherization in Program Year
2 2012. The allocation of weatherization funds by DOE was done without further
3 explanation beyond what was provided in the letter from DOE's Office of
4 Weatherization and Intergovernmental Program, which was attached to my Direct
5 Testimony as Schedule AB-1. I describe the funding situation in Section I of my
6 surrebuttal testimony. Missouri's situation is reflective of the national reduction in
7 Weatherization funding.

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

9 A. Yes. Thank you.

Table 17. Benchmarking References⁶

Label	Reference
ORNL	Schweitzer, Martin. 2005. Estimating the National Effects of the U.S. Department of Energy's Weatherization Assistance Program with State-Level Data: A Meta-evaluation Using Studies from 1993 to 2005. ⁷
OR Energy Smart	Quantec, 2008. Energy Smart Program Evaluation, Oregon HEAT. ⁸
PacifiCorp	The Cadmus Group, 2011. Idaho Low-Income Weatherization Program Evaluation (2007-2009), PacifiCorp. ⁹
Ohio HWAP	Quantec, 2006. Ohio Home Weatherization Assistance Program Impact Evaluation, Ohio Office of Energy Efficiency. ¹⁰

⁶ The evaluations labeled *NW Utility* and *MW Utility* are not publically available; therefore no references are provided.

⁷ http://Weatherization.ornl.gov/pdfs/ORNL_CON-493.pdf

⁸ Not available online.

⁹ http://www.pacificpower.net/content/dam/pacific_power/doc/About_Us/Rates_Regulation/Washington/Regulatory_Filings/DSM_I_937_Compliance_Filing/07-02-10_Revised_Report/Revised_Report/WA_UE_100170_Revised_Rpt_7_2_10.pdf

Accurate citation:

http://www.pacificcorp.com/content/dam/pacificcorp/doc/Energy_Sources/Demand_Side_Management/ID_LowIncome_2007-2009.pdf

¹⁰ https://development.ohio.gov/cms/uploadedfiles/Development.ohio.gov/Divisional_Content/Community/Office_of_Community_Services/HWAPImpactEvaluation.pdf

Source: Cadmus Group 2012, "Residential Low Income Weatherization Program Evaluation", p. 18

Summary of measure-level savings and cost effectiveness tests

Label	Page location of savings data	Report measure-level savings?	Cost effectiveness test	Notes
ORNL	Unclear. Gas heating results reported in Table 2 (p. 11), Energy savings in electrically-heated houses reported in Appendix B (p. 29); Electricity savings for non-heating uses reported in Appendix C (p. 31). None of these tables present the 11% savings cited in Figure 1.	No	"Using the above-reported values, benefit-cost ratios for gas-heated houses served by the Weatherization Assistance Program were computed to be 1.34 from the program perspective and 2.53 using the societal approach." (p. xiv)	Evaluation focused on gas savings, although there are summary tables showing savings f Energy savings in electrically-heated houses reported in Appendix B and Electricity savings for non-heating uses reported in Appendix C.
OR Energy Smart	Table 2 (p. 4) and Table 17 (p. 34)	No. Installation rates of electric measures are provided in Table 16 (p. 32), but energy savings for these measures are not reported. Installation numbers for categories of Weatherization measures are reported (p. 33), by energy savings by category is not. Report mentions "Our analysis of the client billing data shows actual savings experienced by the households." (p. 33)	Improvement in energy usage ("Scenario A"): 0.23 (Table 27, p.43)	Evaluation conducted by Quantec, M. Sami Khawaja lead author
PacifiCorp	Table 11 (p. 18) "Participant Adjusted Gross Savings"	No. Program-level savings reported (see p. 14)	Program-level TRC No-adder Energy-only effects: 0.79 (Table 21, p. 29); Energy and non-Energy benefits: 1.15 (Table 23, p. 29)	Evaluation conducted by Cadmus Group, M. Sami Khawaja lead author.
Ohio HWAP	Table 11 (p. 35), reports Net savings for "Electricity – Electric Heat Usage and Savings" at 6.6%	No. Savings calculated for categories of measures, primarily building shell categories, water heating and furnace repair. Results are presented in therms saved; no results are presented in KWh saved (see Table 9, p. 28 and Appendix E.).	Table 21 (p. 48) lists overall benefit/cost ratios for electric homes: 0.70 from the "program perspective" and 2.01 from the "societal perspective". Figure 19 (p.50) provides benefit/cost ratios for "Site Built Single-Family Measure-Level Cost Effectiveness by Natural Gas Usage Category". No equivalent measures for electric measures are provided.	Evaluation conducted by Quantec, M. Sami Khawaja lead author