

Exhibit No.:  
Issues: Low-Income Weatherization  
Income Related Considerations  
Witness: Sharlet E. Kroll  
Sponsoring Party: Missouri Department of Economic  
Development – Division of Energy  
Type of Exhibit: Direct Testimony  
Case No.: GR-2018-0013

**MISSOURI PUBLIC SERVICE COMMISSION**

**LIBERTY UTILITIES (MIDSTATES NATURAL GAS CORP.)  
d/b/a LIBERTY UTILITIES**

**CASE NO. GR-2018-0013**

**DIRECT TESTIMONY**

**OF**

**SHARLET E. KROLL**

**ON**

**BEHALF OF**

**MISSOURI DEPARTMENT OF ECONOMIC DEVELOPMENT**

**DVISION OF ENERGY**

Jefferson City, Missouri

March 2, 2018

(Revenue Requirement)

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

In the Matter of Liberty Utilities (Midstates )  
Natural Gas) Corp. d/b/a Liberty Utilities' )  
Tariff Revisions Designed to Implement a )  
General Rate Increase for Natural Gas )  
Service in the Missouri Service Areas of the )  
Company )

**File No. GR-2018-0013**

**AFFIDAVIT OF SHARLET E. KROLL**

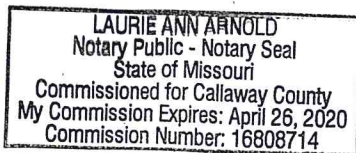
STATE OF MISSOURI            )  
  )        ss  
COUNTY OF COLE            )


Sharlet E. Kroll, of lawful age, being duly sworn on her oath, deposes and states:

1. My name is Sharlet E. Kroll. I work in the City of Jefferson, Missouri, and I am employed by the Missouri Department of Economic Development, Division of Energy as an Energy Specialist IV.
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.

  
\_\_\_\_\_  
Sharlet E. Kroll

Subscribed and sworn to before me this 2<sup>nd</sup> day of March, 2018.



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

My commission expires: 4/26/20

TABLE OF CONTENTS

I.	INTRODUCTION.....	1
II.	PURPOSE AND SUMMARY OF TESTIMONY.....	4
III.	FEDERAL LOW INCOME WEATHERIZATION ASSISTANCE PROGRAM .....	5
IV.	DIVISION OF ENERGY'S ADMINISTRATION OF WEATHERIZATION ASSISTANCE PROGRAMS.....	7
V.	THE COMPANY'S WEATHERIZATION PROGRAM.....	11
VI.	INCOME RELATED ENERGY CONSIDERATIONS.....	18
VII.	CONCLUSIONS.....	23

1 **I. INTRODUCTION**

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

3 A. My name is Sharlet E. Kroll. My business address is 301 West High Street, Suite 720, PO  
4 Box 1766, Jefferson City, Missouri 65102.

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

6 A. I am employed by the Missouri Department of Economic Development (“DED”) –  
7 Division of Energy (“DE”) as an Energy Specialist IV.

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

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

10 **Q. What are the responsibilities of the Division of Energy?**

11 A. DE is a division within DED which serves as Missouri’s state energy office. DE is  
12 responsible for the administration of federal programs and grants such as federal Low  
13 Income Weatherization Assistance Program (“LIWAP”) funding in Missouri. DE is also  
14 responsible for administering the federal State Energy Program (“SEP”) in Missouri. The  
15 SEP, established by the United States Congress in 1978, is managed nationally by the  
16 United States Department of Energy (“USDOE”). DE’s powers and duties are outlined in  
17 Section 640.150, RSMo.

18 **Q. Have you previously testified before any state regulatory commission?**

19 A. Yes. I have testified before the Missouri Public Service Commission (“MPSC” or  
20 “Commission”). Please see Schedule SEK-1.

1 **Q. Please describe your educational and professional background.**

2 A. I was awarded a dual Bachelor of Arts degree in Sociology and Political Science in 1993  
3 from the University of Missouri – Columbia (“UMC”). I am a Capital Fellow in the  
4 Master of Public Affairs Program at the Harry S Truman School of Public Affairs.

5 I joined the DED-DE team in 2015 as a Planner II, Energy Policy Analyst. As an Energy  
6 Policy Analyst, I represented DE at investor-owned utility (“IOU”) advisory group  
7 meetings, conducted DE’s internal budget tracking of energy efficiency (“EE”) measures  
8 in Missouri, evaluated and developed policy recommendations on the non-energy benefits  
9 and low-income issues related to initiatives under the Clean Power Plan, and worked on a  
10 project to detail the EE case history of each utility. In March of 2017, I was promoted as  
11 the Administrative Manager for DE’s LIWAP unit where I supervise the LIWAP  
12 procedural operations and staff. I have over 24 years of state government program  
13 experience in areas related to low-income, public health, emergency response, and EE. I  
14 started my career as a Social Service Worker with the State of Missouri in the Department  
15 of Social Services (“DSS”), initially with the Division of Family Services and later with  
16 the Division of Aging – which is now the Division of Senior and Disability Services within  
17 the Department of Health and Senior Services. During my service with Division of Aging,  
18 I was cross-trained to receive and process Medicaid applications related to: Old Age  
19 Assistance and the Permanently and Totally Disabled. In 2002 I became Missouri’s first  
20 “State Medical Reserve Corps/Volunteer Program Coordinator” and worked with local  
21 public health agencies to develop and implement a statewide public health volunteer  
22 program for disaster response. I also hold a certificate of knowledge in Building Science  
23 Principles, which is a home performance course. In addition, I completed Building

1 Operator Certification (“BOC”). The BOC is a national workforce training and  
2 credentialing program that offers job skills in EE building and operation maintenance  
3 practices. Finally, I completed the National Incident Management System curriculum  
4 required for public health, the Federal Emergency Management Agency’s (“FEMA”)   
5 Planners Course, and other emergency management courses sponsored through the State  
6 Emergency Management Agency (“SEMA”). I participated in and evaluated several state-  
7 level disaster preparedness exercises.

8 **Q. Please describe your work assisting Missouri utilities with energy efficiency**  
9 **initiatives and weatherization.**

10 A. I am the Weatherization Assistance Program Administrative Manager for DE, prior to this  
11 position, I served as DE’s designated representative to all electric and natural gas IOU  
12 collaboratives. These included: Liberty Utilities (Midstates Natural Gas) Corporation  
13 d/b/a Liberty Utilities (“Liberty” or “Company”) EE Advisory Group, Missouri Gas  
14 Energy - Laclede Gas Company EE Collaborative, Ameren Missouri<sup>1</sup> Demand-Side  
15 Management Stakeholder Group (“DSMAG”), Ameren Missouri Natural Gas EE Advisory  
16 Group, Kansas City Power and Light Company DSMAG, KCP&L Greater Missouri  
17 Operations Company DSMAG, Summit Natural Gas EE Advisory Group, Empire District  
18 Electric Company DSMAG, and Empire District Gas Company DSMAG. Most  
19 collaboratives meet quarterly via conference call, web cast, or in-person. Three  
20 collaboratives meet biannually. Each collaborative addresses company-specific issues,

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<sup>1</sup> Union Electric Company d/b/a Ameren Missouri

1 which may include EE measures and programs, weatherization efforts, the potential for co-  
2 delivery of programs, and program evaluation.

3 **Q. What information did you review in preparation of this testimony?**

4 A. In preparation of this testimony, I reviewed the relevant portions of direct testimonies of  
5 Robert B. Hevert, Brent A. Baker, David Swain, EE and weatherization program  
6 documents including DE weatherization reports, the Company's website, and past  
7 testimonies of DE witnesses John Buchanan and Joe Gassner.

8 **II. PURPOSE AND SUMMARY OF TESTIMONY**

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

10 A. The purpose of my testimony is to present DE's recommendations regarding administration  
11 and funding of the Company's weatherization program. I will provide information on the  
12 history and performance of the weatherization program, as well as, discuss energy burden  
13 and other household income related considerations.

14 **Q. What are your recommendations regarding the Company's weatherization program?**

15 A. DE requests that the Commission (1) continue the current level of funding for the  
16 Company's weatherization program at \$105,000 as approved in Case Nos. GR-2010-0192  
17 and GR-2014-0152, (2) transition administration of the Company's weatherization  
18 program to the Company, and (3) request that the Energy Efficiency Collaborative discuss  
19 adding as a check off box to customer bills and the on-line payment systems to allow  
20 additional voluntarily contributions to weatherization efforts – a long-term energy solution.

1 **III. FEDERAL LOW INCOME WEATHERIZATION ASSISTANCE PROGRAM**

2 **Q. Please describe the federal LIWAP.**

3 A. Congress established the federal LIWAP in response to the energy crisis of the early 1970s.  
4 LIWAP is the nation’s largest residential energy efficiency program, and it provides cost-  
5 effective, energy-efficient home improvements to Missouri’s low income households,  
6 especially households in which the elderly, children, those with physical disadvantages,  
7 and others hit hardest by high utility costs reside. The program is intended to be a more  
8 effective, long-lasting solution to address energy insecurity. Its goal is to lower utility bills  
9 and improve comfort while ensuring health and safety. The LIWAP utilizes a “whole  
10 house retrofit” approach to building improvement. All participating homes must undergo  
11 an energy audit to identify energy efficiency and health and safety opportunities, such as  
12 malfunctioning or substandard equipment. Home efficiency and health and safety  
13 measures which have been determined to be cost effective or necessary for client health  
14 and safety are installed by trained weatherization professionals. Effective July 1, 2015,  
15 every weatherized home must pass a thorough, quality-control inspection (“QCI”) by the  
16 subgrantee before the dwelling can be reported as completed. The final inspection must  
17 certify that all repairs and installations were completed in a professional manner and in  
18 accordance with the Technical Standards.

19 **Q. What are some of the benefits of weatherization?**

20 A. Weatherization can reduce customer energy use and provide economic benefits for utilities,  
21 ratepayers and local communities. Low-income households are more likely to have  
22 difficulty connecting to utility service due to outstanding account balances, have energy  
23 disruptions due to shut-offs and experience negative health and employment outcomes due



1 to challenges related to acquiring and maintaining basic household energy services. Low-  
2 income households are less likely to have the financial resources to make meaningful  
3 energy efficiency improvements that will reduce their energy burden. Without  
4 weatherization, homeowners may resort to using broken or malfunctioning equipment that  
5 can result in fires or carbon monoxide poisoning. Homeowners may go without heating or  
6 cooling or forgo needed medical appointments, medications, and/or food. This is  
7 particularly concerning for households with occupants who are premature babies, elderly,  
8 take medications which can affect core body temperature or suffer chronic diseases such  
9 as asthma, chronic obstructive pulmonary disease, diabetes or congestive heart failure.  
10 Premature babies or babies born with weakened immune systems are at a higher risk for  
11 developing respiratory syncytial virus (“RSV”) and asthma. When low-income household  
12 parents cannot establish or re-establish utility services under their names, they may employ  
13 other measures to gain service such as; make-shift connections from neighboring  
14 properties, utilization of gas-powered generators or charcoal grills, or creating utility  
15 accounts under the name of a minor child. The short-term fixes can have lasting negative  
16 health, safety and economic impacts on individuals and within communities. The  
17 weatherization program is intended to achieve a long-term energy solution in contrast to  
18 Low Income Home Energy Assistance Program (“LIHEAP”) bill assistance, which is a  
19 temporary stop-gap measure that does not cure the problem of high energy use.  
20 Weatherization improves health and safety by enabling the homeowner to afford to heat  
21 their home to a comfortable level, and the risk of fire is reduced by eliminating the use of  
22 space heaters, cooking ovens, or hot plates to heat homes. Weatherization programs also  
23 have a positive impact on local economies through locally made purchases of energy

1 efficiency related materials, equipment and labor. The housing stock is improved when a  
2 home is weatherized, which in turn improves property values for both the homeowner and  
3 the community.

4 **Q. Are there utility benefits from low-income weatherization services?**

5 A. Yes. Weatherized homes have improved energy efficiency, which helps low-income  
6 households to reduce energy usage and better manage energy bills. When customers can  
7 afford their energy bills, there are fewer shut-offs and reconnections, fewer notices and  
8 customer calls, reduced collection costs, and lower the amount of bad debt.<sup>2</sup> This, in turn,  
9 lowers the utility's costs associated with unpaid balances and consequently results in a  
10 positive impact on future rates for all customers.

11 **IV. DE'S ADMINISTRATION OF WEATHERIZATION ASSISTANCE PROGRAMS**

12 **Q. Please describe DE's administration of the federal LIWAP.**

13 A. DE maintains an expert team with certified technical personnel trained to ensure  
14 administration of LIWAP funds in compliance with USDOE program guidelines. DE has  
15 eight full time staff and several part time staff, whose total time is equivalent to an  
16 additional one and a half full time staff positions. Several DE staff are credentialed through  
17 certifications to ensure administration of LIWAP in compliance with USDOE program  
18 guidelines. USDOE requires some DE staff to be QCI certified, which three of DE's  
19 technical staff have. Additionally, some DE staff are Certified Building Analysts and  
20 Certified Healthy Home Specialists. Administration includes several components  
21 encompassing fiscal, procedural and technical oversight. DE has fiscal management of

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<sup>2</sup> M.Schweitzer. *Oak Ridge national Laboratory. Nonenergy Benefits From The Weatherization Assistance Program: A Summary of Findings From the Recent Literature*, April 2002.

1 multiple funding sources with differing expiration cycles. Procedural administration  
2 includes: monitoring contactors (“subgrantees”), technical assistance, review and approval  
3 of monthly subgrantee requests for payment (“reimbursements”) and supporting client files  
4 and documentation, annual on-site procedural monitoring of subgrantee contracts, and  
5 submittal of required reports and inquiries to USDOE. Technical administration includes:  
6 home inspections of a minimum of five percent of weatherized homes during on-site  
7 technical monitoring to ensure quality control and adherence with program guidelines,  
8 training support, and technical assistance. These activities can be aggregated to daily,  
9 monthly and annual occurrences as shown in Schedule SEK – 2. Annually, DE issues  
10 subgrantee weatherization contracts, assigns a risk assessment to each subgrantee, hosts a  
11 technical training in Jefferson City, conducts at least one on-site fiscal and procedural  
12 monitoring of each subgrantee and two on-site technical monitoring visits of each  
13 subgrantee. USDOE requires an on-site technical monitoring of a percentage of completed  
14 homes per subgrantee. DE adds homes to this requirement in order to monitor  
15 weatherization work on homes from each funding source. DE contracts with 17 local  
16 community action agencies (“CAAs”) and one non-profit organization as subgrantees to  
17 provide weatherization services to every region in the state. DE negotiates one contract  
18 per funding source with each subgrantee. Between July and November 2017, DE executed  
19 74 contracts with subgrantees and 38 (51 percent) were for utility weatherization programs.  
20 Monthly, DE authorizes subgrantee payment of funds. Each subgrantee request for  
21 reimbursement is reviewed once per funding source and entered into separate tracking  
22 systems for payment. For example, if a home is weatherized using USDOE funds,  
23 Company funds, and LIHEAP funds, then DE staff would review three separate

1 reimbursements for authorization of payment from each fund and enter each of the three  
2 requests into separate ledgers. DE daily compiles reports, invoice and expenditure  
3 tracking, answers numerous inquiries for technical assistance, and maintenance of the  
4 Missouri Weatherization Assistance Program (“MoWAP” or “Database”) Database.  
5 MoWAP is a real-time, web-based application used by DE and their subgrantees for  
6 tracking and reporting of DE administered weatherization funds. DE monitors MoWAP  
7 daily for subgrantee activity (budget adjustments and reimbursements) and reports.

8 **Q. What are the current sources of weatherization funding administered by DE?**

9 A. From 1977 through January 31, 2018, 190,688 homes in Missouri were weatherized with  
10 funds administered by DE. DE administers funds from four funding streams: USDOE,  
11 LIHEAP, Utilicare, and utility weatherization – (Ameren Missouri Electric, Ameren  
12 Missouri Natural Gas, Laclede Gas Company, and Liberty Utilities). DE annually submits  
13 an application to receive USDOE grant funds, which has traditionally been DE’s primary  
14 source of LIWAP funding. Beginning in 2013, LIHEAP funds have been transferred to  
15 DE to weatherize homes, providing a long-term – versus temporary – solution to addressing  
16 the energy burden for low-income clients. At times, DE receives Utilicare funding, which  
17 comes from the state’s general revenue and is subject to the state budgetary process.<sup>3</sup> DE  
18 administers all funds in accordance with USDOE LIWAP guidelines. DE did accumulate  
19 a carryover of IOU funds associated with past priority spending of American Recovery and  
20 Reinvestment Act (“ARRA”) funding. However, in recent years, DE has reduced the  
21 amount of carryover.

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<sup>3</sup> No allocation was granted for FY2018 (July 1, 2017 – June 30, 2018).

1 **Q. How are DE's costs of administering utility weatherization programs provided?**

2 A. While the subgrantees have received and continue to receive administrative compensation  
3 from utility weatherization programs, DE's administrative services have been provided at  
4 no cost to the Company. DE has funded the vast majority of its administrative contribution  
5 to utility weatherization programs through the USDOE grant it receives to administer the  
6 LIWAP program. At the state level, DE receives no general revenue funds to administer  
7 weatherization programs nor does DE receive funds to administer the weatherization  
8 portion of Utilicare.<sup>4</sup> However, DE does intermittently receive some funds to administer  
9 the transfer of federal LIHEAP<sup>5</sup> funds for weatherization. The amount approved for 2016  
10 was less than three percent of the LIHEAP funds authorized for weatherization.

**Q. Which IOU weatherization programs are not administered by DE?**

11 A. MGE, Kansas City Power & Light ("KCP&L"), KCP&L Greater Missouri Operations and  
12 Summit Natural Gas.

13 **Q. Which IOU weatherization programs are administered by DE?**

14 A. DE administers the weatherization programs of the Company, Empire District Electric,  
15 Empire District Gas, Ameren Electric, Ameren Gas, and Laclede Gas Company. Although,  
16 the administration of Laclede Gas Company's weatherization program will transition to a  
17 third party implementer per Case No. GR02017-0215. Additionally, per Case No. ER-  
18 2016-0179, Ameren along with stakeholders compiled a report to the Commission  
19 regarding future administration of Ameren Electric's weatherization program.

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<sup>4</sup> Missouri Revised Statutes, *Utilicare Stabilization Fund Created – Used For Utilicare Program*. Chapter 660, Section 660.136.1, August 28, 2016. <http://www.moga.mo.gov/mostatutes/stathtml/66000001361.html>

<sup>5</sup> While DE received 2.9 percent from LIPHEAP for personnel costs and expense and equipment costs for the current year, no administrative funding for DE was authorized the first two years of LIHEAP funding for LIWAP.

1 **V. THE COMPANY’S WEATHERIZATION PROGRAM**

2 **Q. How is the Company’s weatherization program administered?**

3 A. DE has administered the Company’s weatherization program since February 2008. DE  
4 oversees contractor (“subgrantee”) delivery of program services within Liberty’s service  
5 area. There are six subgrantees contracted by DE to provide approval and installation of  
6 weatherization measures to Missouri’s most vulnerable households: East Missouri Action  
7 Agency (“EMAA”), Community Action Partnership of Northeast Missouri  
8 (“CAPNEMO”), Delta Area Economic Opportunity Corporation (“DAEOC”), West  
9 Central Missouri Community Action Agency (“WCMCAA”), North East Community  
10 Action Corporation (“NECAC”), and South Central Missouri Community Action Agency  
11 (“SCMAA”). From February 2008 to January 31, 2018, there were 369 Liberty households  
12 weatherized utilizing company funds administered by DE.

13 **Q. Under what condition would DE be willing to continue administration of the**  
14 **company’s weatherization program?**

15 A. DE is willing to continue administering the Liberty weatherization program, consistent  
16 with the LIWAP, provided that its administrative costs can be recovered. DE is willing to  
17 provide administration services at the lesser of costs or up to five percent of the program  
18 budget. DE continues to be willing to work with the EE Advisory Group to develop a  
19 viable solution for the administration of the Company’s program.

20 **Q. What is the basis for DE’s recommendation for administration compensation?**

21 A. DE is concerned about its on-going ability to administer the Company’s program due to  
22 the increasing costs which the USDOE LIWAP grant incurs as a result of managing the  
23 Company’s and other utility programs. Increasingly, DE has faced financial challenges in

1 supporting adequate staff and covering related expenses to administer both LIWAP and  
2 utility weatherization programs. DE is also concerned about possible public perceptions  
3 of bias arising from DE's agreement to manage some utility weatherization programs while  
4 declining to manage other requests for the same treatment. In addition to the cost of staff  
5 time and related expenses associated with administration of the Company's program, DE  
6 is aware that the Environmental Improvement and Energy Resources Authority  
7 ("EIERA"), which handles the receipt and disbursement of IOU program funds, is  
8 requesting a flat fee to recover their transaction costs for the services they provide in the  
9 administration of the Company's funds. Currently, only their accounting and auditing fees  
10 are paid out of the Company's \$105,000 weatherization funds. DE believes we provide  
11 value in administering weatherization programs due to economies of scale. DE is  
12 interested in crafting a consistent and sustainable approach to program administration that  
13 addresses these issues.

14 **Q. What is EIERA?**

15 A. Since 2003, DE administered IOU weatherization funds have been held by EIERA. EIERA  
16 was established in 1972 by the Missouri General Assembly and is housed within the  
17 Missouri Department of Natural Resources. It is a quasi-governmental environmental  
18 finance agency which has a five member board appointed by the Governor for a three-year  
19 term and confirmed by the Senate. EIERA does not receive state general revenue funds.

20 **Q. What incremental costs does DE incur to administer the Company's weatherization  
21 program?**

22 A. The six subgrantees providing weatherization services for the company's eligible  
23 customers represent 138 instances of incremental costs for DE as shown in Schedule

1           SEK – 2. DE annually contracts with subgrantees to provide weatherization services. In  
 2           the current program year (“PY”) November 1 – October 31, 2018, DE has six additional  
 3           contracts with subgrantees for the Company’s weatherization program as shown in Table  
 4           1 below.

5

Fund	Agency					
	CAPNEMO	DAEOC	EMAA	NECAC	SCMCAA	WCMCAA
DOE*	Y	Y	Y	Y	Y	Y
LIHEAP*	Y	Y	Y	Y	Y	Y
Utilicare **	Y	Y	Y	Y	Y	Y
Ameren Electric	Y	Y	Y	Y		
Ameren Gas		Y	Y	Y	Y	Y
Liberty Utilities	Y	Y	Y	Y	Y	Y
Laclede Gas			Y	Y	Y	
Empire Electric						Y
Empire Gas						Y
<b>TOTALS</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>7</b>	<b>6</b>	<b>7</b>

\*FY 2018 (ending June 30, 2018)  
 \*\* Was not appropriated for FY 2018

6           Monthly, DE reviews subgrantee requests (“reimbursements”) for payment. Subgrantees  
 7           submit one reimbursement per funding source. For example, a subgrantee who weatherizes  
 8           a home leveraging blended DOE, Liberty, LIHEAP, and Ameren-Missouri Electric funds  
 9           would submit four separate reimbursement requests. Thus, there is a potential of 72 (six  
 10          subgrantees x 12 months) additional reimbursements DE must review as a result of  
 11          administering Liberty’s funds as see in Table 2. Further, there is the potential for DE to  
 12          process 372 IOU weatherization program reimbursements for which DE is uncompensated  
 13          by the IOU.



1

Fund	Number Agencies	Annual Reimbursements (Potential)
DOE*	18	216
LIHEAP*	18	216
Utilicare **	0	0
Ameren Electric	12	144
Ameren Gas	7	84
Liberty Utilities	6	72
Laclede Gas	6	72
Empire Electric	3	36
Empire Gas	4	48
<b>TOTALS</b>	<b>74</b>	<b>888</b>

\*FY 2018 (ending June 30, 2018)  
 \*\* Was not appropriated for FY 2018

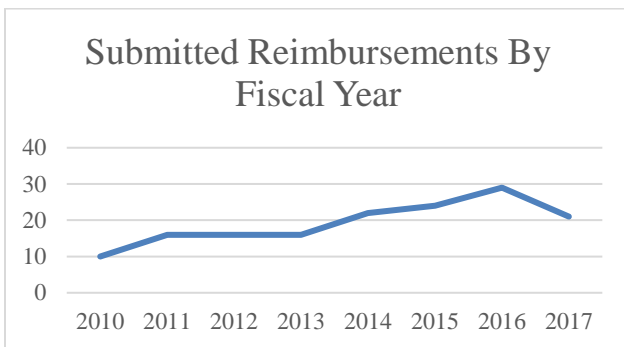
2

As indicated in graph below, the number of Liberty weatherization reimbursements processed has historically ranged from 10 to 29. DE is on track to process 30 or more reimbursements by October 31, 2018.

3

4

5



6

Each reimbursement is touched by at least three DE staff starting with the initial review of client files, then approval of reimbursement, and finally completion of forms for authorization of payment. Because DE administers the LAC funds consistent with LIWAP, DE includes LAC funds in both the on-site technical and procedural monitoring with subgrantees. DE must annually complete a minimum of one on-site procedural monitoring and two technical monitoring of each subgrantee per USDOE LIWAP guidelines. DE includes additional client files to be reviewed during the procedural monitoring and

7

8

9

10

11

12

1 additional homes to be inspected during the technical monitoring process in order to  
 2 include homes weatherized with utility funds. In FY 2017, DE included 11 client files  
 3 (Table 3) weatherized with Company funds, in its procedural monitoring reports to  
 4 subgrantees.

5

**TABLE 3: Number Client Files Reviewed During Annual Procedural Monitoring Visit**

Agency	FY 2016 (G16-14-152)	FY 2017 (G18-14-152-2)	FY 2018* (G18-14-152-3)
CAPNEMO	4	1	**
DAEOC	9	6	3
EMAA	0	1	**
NECAC	1	1	0
SCMCAA	1	1	**
WCMCAA	2	1	3
<b>TOTALS</b>	<b>17</b>	<b>11</b>	<b>6</b>

\* July 1, 2017 - January 31, 2018  
 \*\* Monitoring hasn't been conducted yet.  
 Monitoring schedule goes by the State Fiscal Year ("FY") of July 1 - June 30.

6 Technical monitoring of subgrantees includes site visits to a minimum of five percent of  
 7 completed homes. DE also includes homes “in-progress” and homes ready to start  
 8 weatherization. Technical monitoring is broken into two cycles. Thus, every subgrantee  
 9 receives two technical monitoring visits per fiscal year. As shown in Table 4 below, DE  
 10 included 20 LAC funded homes in technical monitoring reports.

11

**TABLE 4: Number of Client Homes Visited During Technical Monitoring Visits (Liberty)**

Agency	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017*
CAPNEMO	1	1	0	1	0
DAEOC	3	2	2	4	3
EMAA	0	0	1	1	0
NECAC	0	1	1	2	1
SCMCAA	0	0	1	1	0
WCMCAA	1	0	1	1	1
<b>TOTALS</b>	<b>5</b>	<b>4</b>	<b>6</b>	<b>10</b>	<b>5</b>

1 **Q. Please discuss the Company’s weatherization program.**

2 A. DE administers the Company’s program according to the USDOE’s LIWAP guidelines.  
 3 Liberty provides service to 46,475<sup>6</sup> residential customers in 26<sup>7</sup> (22 percent) of the 114  
 4 counties in Missouri. The Company’s weatherization program is performing well as shown  
 5 in Table 5 below.

6

*	Budgets	Expenses	Carryover	Percent	Homes	Average/Home
<b>FY08-PY07**</b>	\$100,000	\$79,431	\$20,569	79.43%	35	\$2,269.46
<b>FY09-PY08</b>	\$103,755	\$99,789	\$3,966	96.18%	51	\$1,956.65
<b>FY10-PY09</b>	\$120,740	\$97,077	\$23,663	80.40%	61	\$1,591.43
<b>FY11-PY10</b>	\$128,647	\$93,967	\$34,680	73.04%	29	\$3,240.24
<b>FY12-PY11</b>	\$139,680	\$51,217	\$88,463	36.67%	23	\$2,226.83
<b>FY13-PY12</b>	\$196,187	\$88,738	\$107,449	45.23%	31	\$2,862.52
<b>FY14-PY13</b>	\$212,449	\$130,169	\$82,280	61.27%	31	\$4,199.00
<b>FY15-PY14</b>	\$189,757	\$159,140	\$30,617	83.87%	34	\$4,680.59
<b>FY16-PY15</b>	\$125,577	\$125,577	\$0	100.00%	39	\$3,219.92
<b>FY17-PY16</b>	\$104,989	\$94,490	\$10,499	90.00%	26	\$3,634.23
<b>FY18-PY17***</b>	\$114,403	\$39,632	\$74,771	34.64%	9	\$4,403.56
<b>TOTAL</b>		<b>\$1,059,227</b>	<b>\$476,957</b>		<b>369</b>	<b>\$2,870.53</b>

\* Program year runs November 1 - October 31. Year based on November.  
 \*\* Partial year as program administration began February 2008.  
 \*\*\* Partial year from November 1, 2017 - January 31, 2018.

7 The first program year (PY 2007) was nine months, but 79 percent of Company funds were  
 8 expended. Missouri received American Recovery and Reinvestment Act (“ARRA”)  
 9 funding from April 1, 2009 to June 30, 2013. Because ARRA’s LIWAP funds were  
 10 required to be expended by a deadline, they had to be utilized ahead of IOU funds. This  
 11 resulted in a surplus (“carryover”) of utility funds in PY 2011 through PY 2012. However,  
 12 since PY 2016, DE expended 100 percent of the Company’s weatherization funds.  
 13 Presently, subgrantees have expended 34 percent of Company funds in three months (or 25  
 14 percent of the contract time).

<sup>6</sup> Company’s Minimum Filing Requirement

<sup>7</sup> This includes Clark County where the community of Alexandria is located. Clark County is not included in the Company’s Minimum Filing Requirement as a county of impact.

1 **Q. How many Company customers are on waiting lists for weatherization services?**

2 A. Subgrantees use waiting lists as a way to fairly manage the order in which applicants  
3 receive weatherization measures so that preferential treatment is removed from the process.  
4 There are 1,868 households statewide on subgrantee waiting lists for weatherization  
5 services and 120 (6.42 percent) are Liberty customers as shown in Table 6 below.

6

Agency	Statewide	Liberty	Percent
CAAGKC	40		
CAASTLC	86		
CAPNCM	40		
CAPNEMO	55	26	47.27%
CMCA	48		
CSI	41		
DAEOC	66	26	39.39%
EMAA	143	1	0.70%
ESC	77		
JFCAC	62		
MOCA	50		
MVCAA	74		
NECAC	479	62	12.94%
OACAC	162		
OAI	184		
SCMCAA	54	2	3.70%
ULMSL	80		
WCMCAA	127	3	2.36%
<b>TOTAL</b>	<b>1,868</b>	<b>120</b>	<b>6.42%</b>

7 It should be noted that waiting lists only consider households that are in application status.  
8 Households that are in the process of being weatherized are not considered as part of the  
9 waiting list count. In addition, the waiting lists do not account for all potentially eligible  
10 households. Table 7 below, is an excerpt taken from “The Home Energy Affordability  
11 Gap.”<sup>8</sup> The firm of Fisher, Sheehan, & Colton took Census Bureau data to calculate the  
12 number of households and energy burden in federal poverty level (“FPL”) guideline  
13 segments. There are 94,725 households below 200 percent of FPL across the 26 counties  
14 served by the Company. It is unknown how many of these households are Liberty  
15 customers. As previously stated, there are 369 Liberty customers on the waiting lists for  
16 weatherization services, and there have been 1,868 Liberty households weatherized under

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<sup>8</sup> Fisher, Sheehan & Colton. (April 2017). “The Home Energy Affordability Gap 2016: Missouri,” Public Finance and General Economics. Retrieved August 17, 2017 from [http://www.homeenergyaffordabilitygap.com/03a\\_affordabilityData.html](http://www.homeenergyaffordabilitygap.com/03a_affordabilityData.html)

DE’s administration of the Company’s program – representing one percent of the low-income market share (1,868/94,725).

**Table 7: Missouri 2016 Home Energy Affordability Gap**

County	Less than 50% FPL		50-199% FPL		100% - 124% FPL		125-149% FPL		150-184% FPL		185-199% FPL		0-199% FPL
	Households (Number)	Home Energy Burden (Percent)	Households (Number)	Home Energy Burden (Percent)	Households (Number)	Home Energy Burden (Percent)	Households (Number)	Home Energy Burden (Percent)	Households (Number)	Home Energy Burden (Percent)	Households (Number)	Home Energy Burden (Percent)	Households (Total)
Adair	1,683	28.80%	904	15.40%	528	10.20%	543	8.40%	528	6.90%	439	6.00%	4,625
Bates	461	28.40%	766	15.10%	437	10.10%	341	8.30%	536	6.80%	197	5.90%	2,738
Butler	1369	27.60%	2194	14.70%	1339	9.80%	1073	8.00%	1304	6.60%	541	5.70%	7,820
Cape Girardeau	2560	26.70%	2,912	14.20%	1,088	9.50%	1,292	7.80%	2,013	6.40%	790	5.50%	10,655
Cass	1672	28.80%	2,056	15.40%	1,091	10.20%	1,422	8.40%	2,518	6.90%	1,134	6.00%	9,893
Clark *	131	30.60%	252	16.30%	178	10.90%	142	8.90%	123	7.30%	120	6.40%	946
Dunklin	1,207	25.90%	2,292	13.80%	784	9.20%	1,095	7.50%	1,092	6.20%	428	5.40%	6,898
Henry	724	28.80%	1,079	15.40%	556	10.90%	515	8.40%	697	6.90%	184	6.00%	3,755
Iron	311	28.50%	622	15.20%	259	10.10%	225	8.30%	297	6.80%	173	5.90%	1,887
Knox	133	30.90%	219	16.50%	108	11.00%	86	9.00%	129	7.40%	56	6.40%	731
Lewis	211	29.70%	285	15.80%	199	10.60%	335	8.60%	422	7.10%	49	6.20%	1,501
Macon	372	29.70%	819	15.90%	366	10.60%	356	8.60%	519	7.10%	236	6.20%	2,668
Marion	944	27.80%	1,122	14.80%	777	9.90%	671	8.10%	813	6.60%	328	5.80%	4,655
Mississippi	459	26.40%	1,209	14.10%	608	9.40%	347	7.70%	474	6.30%	83	5.50%	3,180
New Madrid	651	26.80%	993	14.30%	664	9.50%	368	7.80%	532	6.40%	327	5.60%	3,535
Pemiscot	806	25.20%	1,197	13.50%	657	9.00%	361	7.30%	577	6.00%	145	5.20%	3,743
Pike	494	29.30%	511	15.60%	456	10.40%	441	8.50%	599	7.00%	246	6.10%	2,747
Ralls	279	30.90%	216	16.50%	131	11.00%	215	9.00%	310	7.40%	121	6.40%	1,272
Ripley	246	28.50%	986	15.20%	464	10.10%	434	8.30%	507	6.80%	197	5.90%	2,834
St. Clair	388	28.90%	545	15.40%	189	10.30%	206	8.40%	481	6.90%	176	6.00%	1,985
Schuyler	70	30.80%	292	16.40%	150	10.90%	105	8.90%	77	7.30%	42	6.40%	736
Scotland	118	30.50%	165	16.20%	131	10.80%	158	8.90%	228	7.30%	72	6.30%	872
Scott	1,296	27.20%	1,677	14.50%	1,041	9.70%	1,151	7.90%	1,269	6.50%	580	5.70%	7,014
Stoddard	667	27.50%	1,219	14.70%	651	9.80%	786	8.00%	1,205	6.60%	476	5.70%	5,004
Wayne	410	28.90%	808	15.40%	374	10.30%	470	8.40%	474	6.90%	136	6.00%	2,672
Worth	42	30.10%	89	16.00%	41	10.70%	78	8.70%	89	7.20%	20	6.20%	359
<b>TOTAL</b>	<b>17,704</b>		<b>25,429</b>		<b>13,267</b>		<b>13,216</b>		<b>17,813</b>		<b>7,296</b>		<b>94,725</b>

Source: Fisher, Sheehan, & Cohen, 2017  
 \* Alexandria is in Clark County and has Company customers on the waiting list.

**VI. INCOME RELATED ENERGY CONSIDERATIONS**

**Q. What is energy burden and energy insecurity?** A. Energy burden is the portion of annual income a household pays for home energy. Energy burden disproportionately impacts low-income households. According to research in “The Home Energy Affordability Gap,” Missouri households with income between 50-100 percent FPL have a home energy burden of 15 percent of their annual income. The home energy burden increases to 27 percent for those households below 50 percent of FPL.<sup>9</sup> Energy insecurity describes a family’s ability to meet basic household energy needs. It is “...the interplay between structural conditions of housing and the costs of household energy.”<sup>10</sup> Energy insecurity occurs when one or all of three things are experienced:<sup>11</sup>

<sup>9</sup> Ibid  
<sup>10</sup> Hernandez, D., Aratani, Y., & Jiang, Y. (2014). Energy Insecurity Among Families with Children, New York: *National Center for Children in Poverty*. Columbia University Mailman School of Public Health. Retrieved October 4, 2016 from [http://www.nccp.org/publications/pdf/text\\_1086.pdf](http://www.nccp.org/publications/pdf/text_1086.pdf)  
<sup>11</sup> E. March. (January 2011). *Children’s HealthWatch*. Behind Closed Doors, The hidden health impacts of being behind on rent.

1 1) limited or uncertain access to energy, 2) receipt of utility termination notice, and  
2 3) actual shut-off of utility service.

3 **Q. What factors, other than income, contribute to higher energy burden?**

4 A. A 2016 report sponsored by the American Council for an Energy-Efficient Economy  
5 (“ACEEE”) analyzed data from the U.S. Census Bureau’s American Housing Survey to  
6 examine energy burden for the largest 48 U.S. cities. The report concluded that low income  
7 households paid more per square foot for energy due to energy inefficient homes. Low-  
8 income households had median annual utility costs of \$1.41 per square foot while non-low-  
9 income had \$1.17. This resulted in a median energy burden of 7.2 percent versus 2.3  
10 percent.<sup>12</sup>

11 **Q. Is it true that low-income customers as a group consume more energy than other**  
12 **customers?**

13 A. No. While it is true that LIHEAP recipients, receiving targeted subsidies to offset energy  
14 costs, exhibit energy use resembling that of non-low income households, as a group low-  
15 income households actually use less energy than non-low income households. Utilities  
16 generally cannot determine household income from customer account information and can  
17 only determine low-income status by identifying accounts receiving bill assistance  
18 payments. The majority of low-income households do not receive bill assistance as a direct  
19 subsidy offsetting energy costs. Therefore LIHEAP recipients are not representative of  
20 low-income households in general. Other data sources must be examined to evaluate  
21 average low-income household energy use relative to households at other income levels.

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<sup>12</sup> Drehobl, A. & Ross, L. (April 2016). *Lifting the High energy Burden in America’s Largest Cities: How Energy Efficiency Can Improve Low Income and Underserved Communities*. Retrieved September 9, 2016 from <http://aceee.org/research-report/u1602>

1 The LIHEAP Home Energy Notebook (“Notebook”) provides insight regarding the direct  
 2 relationship between income and consumption (i.e.: more income, more consumption; less  
 3 income, less consumption). The Notebook includes national and regional data on four  
 4 categories of users: all households, non-low income households, low-income households,  
 5 and LIHEAP recipient households. Below is an abbreviated copy of Table A-2 from the  
 6 last published Notebook FY2014,<sup>13</sup> which compares average consumption per household  
 7 by end user and fuel source. Midwest Households across all categories consumed more  
 8 natural gas when compared to all categories of US households.

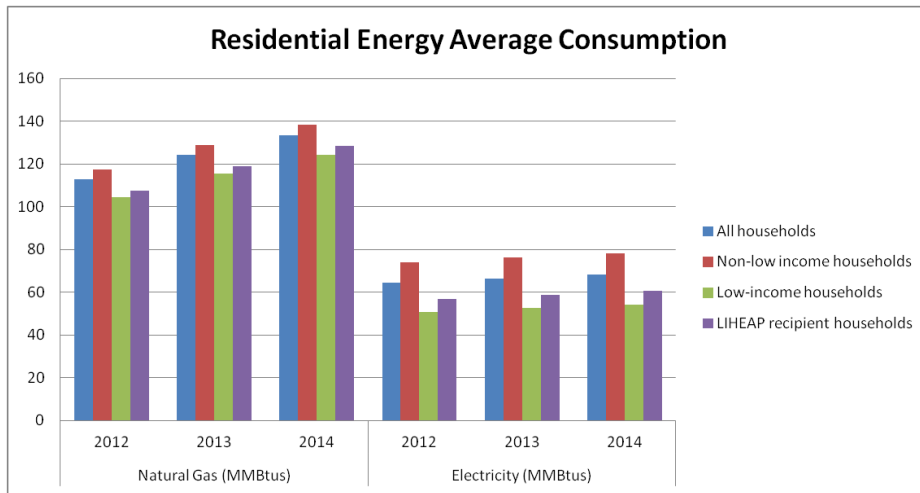
9 LIHEAP Home Energy Notebook Table A-2: Residential energy: Average consumption in MMBtus per household, by all fuels and specified fuels, by all, non-low income, low income and LIHEAP recipient households, by Census Region, FY 2014. Page 104.

Census Region	All Fuels (MMBtus)	Natural Gas (MMBtus)	Electricity (MMBtus)	Fuel Oil (MMBtus)	Kerosene (MMBtus)	LPG (MMBtus)
US - All households	92.4	113.2	60.8	123.3	67.8	114.7
US - Non-low income households	98.7	117.4	66.2	131.4	73.7	121.9
US - Low-income households	80.7	104.2	52.2	108.5	65.4	99.8
US - LIHEAP recipient households	94.8	115.3	56.3	116.8	85.7 *	102.4
Midwest - All households	119.4	133.5	68.3	116.3	NC	113.6
Midwest - Non-low income households	125.8	138.2	78	118.1	NC	137.1
Midwest - Low-income households	107.7	124.4	54.2	114.9	NC	125.7
Midwest - LIHEAP recipient households	113	128.5	60.5	101.9 *	NC	109.1

\* view number with caution due to small number of sample cases.  
 NC = no cases in the 2009 RECS household sample.

<sup>13</sup> U.S. Department of Health and Human Services Administration for Children and Families Office of Community Services Division of Energy Assistance. LIHEAP Home Energy Notebook For Fiscal Year 2014, June, 2016. Table A-2, pp. 95. LIHEAP defines low-income as those which are at or below 150 percent of the poverty guidelines and do not receive LIHEAP assistance. FY2014 is the most current publication.

1



2

Low-income households, in the Midwest, consumed less natural gas than all Midwestern households combined – 124.4 MMBtus versus 133.5 MMBtus (Chart 1) for FY2014, while non-low income households consumed more natural gas than all other users – 138.2 MMBtus. The natural gas consumption of LIHEAP recipient households in the Midwest was higher than low-income household consumption, but lower than non-low income household consumption. If LIHEAP recipient homes could reduce energy consumption through energy efficiency measures then their energy burden could be reduced and LIHEAP dollars would be more impactful.

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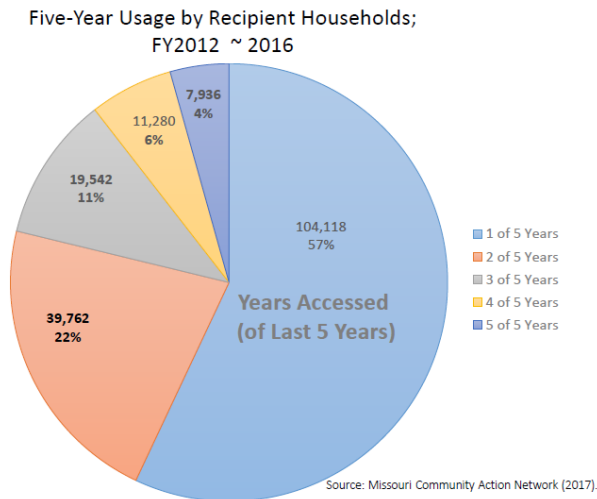
10 **Q. Does DE recommend allowing customers an additional option to voluntarily**  
11 **contribute to weatherization, as they currently have the choice to voluntarily**  
12 **contribute to bill assistance?**

13 **A.** Yes. This would allow customers to voluntarily contribute additional funds to long-term  
14 solutions for reducing energy burdens through weatherization, in addition to the current  
15 option to contribute to the immediate need for billing assistance.



1 **Q. Where might a low-income customer go to find bill payment assistance?**

2 A. Customers who have problems affording their utility bill can apply for LIHEAP assistance.  
3 These funds are first come, first serve. The Missouri Community Action Network  
4 (“MOCAN”) in partnership with the DSS conducted a five year study of 182,638 unique  
5 LIHEAP households for FY2012 – FY 2016. The study found that 57 percent households  
6 utilized LIHEAP for one year while only 4.35 percent utilized LIHEAP every year. Out  
7 of the 4.35 percent, 73 percent were considered vulnerable populations – disabled, elderly  
8 or children under age five, and 59 percent of the 73 percent had some disability. Simply  
9 put, the majority of households who received LIHEAP all five years were probably on a  
10 fixed income and not in the workforce.



12 Some utilities offer bill payment assistance programs for qualifying customers. Liberty  
13 includes information on their website to financial assistance within their area. When  
14 customers have exhausted utility, private donations, and government assistance programs,  
15 they must find other sources of payment or forgo payment.

1 **Q. Where might customers seek out other payment resources?**

2 A. When customers lack adequate funds they may turn to a variety of resources<sup>14</sup> such as:  
3 bank overdrafts, a loan from friends and family, a late or skipped payment on another bill,  
4 pawnshops, auto title pawn, credit cards, and payday loans. Based on a Pew Charitable  
5 Trust report, “*Who Borrows, Where They Borrow, and Why*”, 69 percent of first time  
6 payday loan users sought out the loan to pay for recurring expenses such as utilities, food,  
7 rent/mortgage payments.

8 **VII. CONCLUSIONS**

9 **Q. Please summarize your testimony.**

10 A. Liberty’s weatherization program should continue and be funded at its present level of  
11 \$105,000. In addition, DE respectfully asks the Commission to allow the company to offer  
12 a RFP to contract for administration of its weatherization program or self-administer the  
13 program. Lastly, a check-off box should be added to the companies’ customer bills and  
14 on-line billing system to allow customers the option of providing additional voluntarily  
15 contributions to weatherization.

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

17 A. Yes, thank you.

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<sup>14</sup> Collins, J.M., & Gjertson, L. (2013). Emergency savings for low-income consumers. *Focus*. Vol 20 (1), pp 12-17.  
Accessed from <https://www.irp.wisc.edu/publications/focus/pdfs/foc301c.pdf>