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 Nos.:	ER-2018-0145; ER-2018-0146

MISSOURI PUBLIC SERVICE COMMISSION

KANSAS CITY POWER & LIGHT COMPANY

AND

KCP&L GREATER MISSOURI OPERATIONS

CASE NOs. ER-2018-0145; ER-2018-0146

DIRECT TESTIMONY

OF

SHARLET E. KROLL

ON

BEHALF OF

MISSOURI DEPARTMENT OF ECONOMIC DEVELOPMENT

DVISION OF ENERGY

Jefferson City, Missouri
June 19, 2018

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In The Matter of Kansas City Power & Light Company's Request for Authority to Implement a General Rate Increase For Electric Service	)))	File No. ER-2018-0145
In The Matter of KCP&L Greater Missouri Operations Company's Request for Authority To Implement a General Rate Increase For Electric Service	))))	File No. ER-2018-0146

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 (Income-Eligible Weatherization) 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 June 19, 2018.

LAURIE ANN ARNOLD
Notary Public - Notary Seal
State of Missouri
Commissioned for Callaway County
My Commission Expires: April 26, 2020
Commission Number: 16808714

Notary Public

My commission expires: 4/26/20

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I. INTRODUCTION

Q. Please state your name and business address.

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

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

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

Q. On whose behalf are you testifying?

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

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

A. DE is a division within DED which serves as Missouri's state energy office. DE is responsible for the administration of federal programs and grants such as the federal Low Income Weatherization Assistance Program ("LIWAP"). DE is also responsible for administering the federal State Energy Program ("SEP"). The SEP, established by the United States Congress in 1978, is managed nationally by the United States Department of Energy ("USDOE") and consists of several statewide energy efficiency programs funded by the USDOE. DE's powers and duties are outlined in Section 640.150, RSMo.

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

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

Q. Please describe your educational and professional background.

A. I was awarded a dual Bachelor of Arts degree in Sociology and Political Science in 1993 from the University of Missouri – Columbia ("UMC"). I am a Capital Fellow in the

Master of Public Affairs Program at the Harry S Truman School of Public Affairs.

I joined the DED-DE team in 2015 as a Planner II, Energy Policy Analyst. As an Energy Policy Analyst, I represented DE at investor-owned utility ("IOU") advisory group meetings, conducted DE's internal budget tracking of energy efficiency ("EE") measures in Missouri, evaluated and developed policy recommendations on the non-energy benefits and low-income issues related to initiatives under the Clean Power Plan, and worked on a project to detail the EE case history of each utility. In March of 2017, I was promoted as the Administrative Manager for DE's LIWAP unit where I supervise the LIWAP procedural operations and staff. I have over 25 years of state government program experience in areas related to low-income, public health, emergency response, and EE. I started my career as a Social Service Worker with the State of Missouri in the Department of Social Services ("DSS"), initially with the Division of Family Services and later with the Division of Aging – which is now the Division of Senior and Disability Services within the Department of Health and Senior Services. During my service with the Division of Aging, I was cross-trained to receive and process Medicaid applications related to: Old Age Assistance and the Permanently and Totally Disabled. In 2002 I became Missouri's first "State Medical Reserve Corps/Volunteer Program Coordinator" and worked with local public health agencies to develop and implement a statewide public health volunteer program for disaster response.

Q. Please describe your work assisting Missouri utilities with energy efficiency initiatives.

A. I am the Weatherization Assistance Program Administrative Manager for DE. Prior to this position, I served as DE's designated representative to all electric and natural gas IOU

collaboratives. These included: Liberty Utilities (Midstates Natural Gas) Corporation d/b/a Liberty Utilities ("Liberty") EE Advisory Group, Missouri Gas Energy - Laclede Gas Company EE Collaborative, Ameren Missouri[1] Demand-Side Management Stakeholder Group ("DSMAG"), Ameren Missouri Natural Gas EE Advisory Group, Kansas City Power and Light Company DSMAG, KCP&L Greater Missouri Operations Company DSMAG, Summit Natural Gas EE Advisory Group, Empire District Electric Company DSMAG, and Empire District Gas Company DSMAG. Most collaboratives meet quarterly via conference call, web cast, or in-person. Three collaboratives meet biannually. Each collaborative addresses company-specific issues, which may include EE measures and programs, weatherization efforts, the potential for co-delivery of programs, and program evaluation.

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

A. In preparation of this testimony, I reviewed direct testimonies of Ronald A. Klote, Darrin R. Ives, Marisol E. Miller, Albert R. Bass Jr., and Burton L. Crawford, filed on behalf of Kansas City Power & Light Company ("KCP&L") and KCP&L Greater Missouri Operations ("GMO") in this case; past tariffs and case documents regarding KCP&L's weatherization programs.

[1] Union Electric Company d/b/a Ameren Missouri

II. PURPOSE AND TESTIMONY RECOMMENDATIONS

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

A. The purpose of my testimony is to provide information on the history and performance of the KCP&L's and GMO's income-eligible weatherization programs ("IEW") and discuss energy burden and other household income related considerations.

Q. What are your recommendations?

A. DE requests that the Commission: (1) continue the IEW programs at a funding level of $573,888 for KCP&L and $500,000 for GMO with any unspent annual funds rolling forward into future program years, (2) convene a joint advisory group of interested stakeholders which would meet biannually to consider weatherization policy and program improvements for both companies and be a resource to address barriers to fully utilize IEW funds, and (3) order the new advisory group to consider the policy of voluntary customer contributions to IEW through a check off box on customer bills and the on-line payment system.

III. CUSTOMER AND COMPANY BENEFITS FROM WEATHERIZATION

Q. What are some customer benefits from weatherization?

A. There are numerous quantifiable and non-quantifiable benefits to weatherizing customer homes. Weatherization can reduce customer energy use and provide economic benefits for utilities, ratepayers, and local communities. Low-income households are more likely to have difficulty connecting to or continuing utility service due to outstanding account balances, have energy disruptions due to shut-offs, and experience negative health and employment outcomes due to challenges related to acquiring and maintaining basic household energy services. Low-income households are less likely to have the financial

resources to make meaningful energy efficiency improvements that will reduce their energy burden. Without weatherization, homeowners may resort to using broken or malfunctioning equipment or utilize substitutions that can result in fires or carbon monoxide poisoning. Examples of the later include attempting to warm homes with ovens, cook-stove gas burners turned-up, utilizing kerosene heaters in areas insufficiently ventilated, utilizing unsafe fireplaces or wood burning stoves. Homeowners may go without heating or cooling or forgo needed medical appointments, medications, and/or food. This is particularly concerning for households with occupants who are premature babies, elderly, those who take medications which can affect core body temperature, or those who suffer chronic diseases such as asthma, chronic obstructive pulmonary disease, diabetes, or congestive heart failure. Premature babies or babies born with weakened immune systems are at a higher risk for developing respiratory syncytial virus ("RSV") and asthma. When low-income household parents cannot establish or re-establish utility services under their names, they may employ other measures to gain service such as make-shift connections from neighboring properties, utilization of gas-powered generators or charcoal grills, or creating utility accounts under the name of a minor child. These short-term measures can have lasting negative health, safety and economic impacts on individuals and within families and communities. The weatherization program is intended to achieve a long-term energy solution in contrast to Low Income Home Energy Assistance Program ("LIHEAP") bill assistance, which is a temporary stop-gap measure that does not resolve or address the source of high energy use. Weatherization improves health and safety by enabling the homeowner to afford to heat their home to a comfortable level, and the risk of fire is reduced by eliminating the use of space heaters, cooking ovens, or hot

plates to heat homes. Weatherization programs also have a positive impact on local economies through locally made purchases of energy efficiency related materials, equipment, and labor. The housing stock is improved when a home is weatherized, which in turn improves property values for both the homeowner and the community.

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

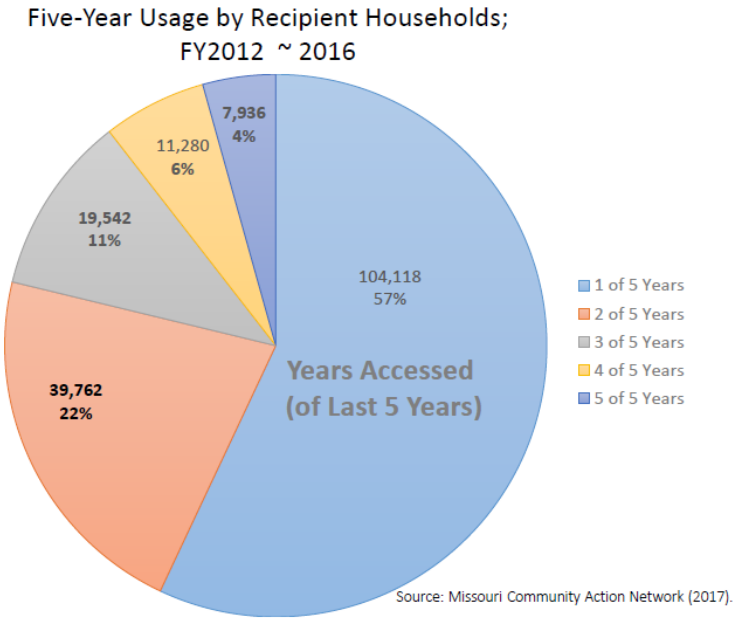
A. Yes. Weatherized homes have improved energy efficiency which helps low-income households to reduce energy usage and better manage energy bills. When customers can afford their energy bills, there are fewer shut-offs and reconnections, fewer disconnection notices and customer calls, reduced collection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

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

A. Customers who have difficulty affording their utility bill can apply for LIHEAP assistance. LIHEAP funds are available on a first come, first serve basis. The Missouri Community Action Network ("MOCAN") in partnership with the DSS conducted a five year study of 182,638 unique LIHEAP households for FY2012 – FY2016. The study found that 57 percent of households that received LIHEAP assistance utilized LIHEAP for one year while only 4.35 percent (7,936 households), utilized LIHEAP every year of the study. Out of the 4.35 percent, there were 73 percent of households that are considered vulnerable populations per the LIWAP definitions – disabled, elderly or children under age five. Over half of these vulnerable households (59 percent of the 73 percent) had at least one

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

individual with a disability. This data suggests the majority of households who received LIHEAP all five years were likely on a fixed income and not in the workforce.



Some utilities offer bill payment assistance programs for qualifying customers. The Company includes information on its website to direct customers to financial resources and the Company's Economic Relief Pilot Program ("ERPP"). When customers have exhausted utility, private donations, and government assistance programs, they must find other sources of payment or forgo payment and forgo an essential service.

Q. Where might customers seek other payment resources?

A. When customers lack adequate funds they may turn to a variety of resources such as: bank overdrafts, a loan from friends and family, a late or skipped payment on another bill, pawnshops, auto title pawn, credit cards, and payday loans. Based on a Pew Charitable Trust report, "*Who Borrows, Where They Borrow, and Why*", 69 percent of first time

payday loan users sought out the loan to pay for recurring expenses such as utilities, food, rent/mortgage payments.[3]

IV. KCP&L'S AND GMO'S RESIDENTIAL INCOME-ELIGIBLE WEATHERIZATION PROGRAMS

Q. Why do you support a continued funding level of $573,888 for KCP&L's IEW program?

A. This funding level was established over eight years ago and KCP&L has demonstrated in the recent past that it can expend at this level. KCP&L's service area is sufficient to support this funding level as it serves 254,755 residential customers[4] in communities across 13 counties. This equates to $2.25 annually per customer ($573,888/254,755 customers).

Q. Are you satisfied with the performance of KCP&L's IEW program?

A. While DE is satisfied with its performance in 2016 and 2017, I am concerned with the anticipated performance for 2018. In 2016 and 2017, the IEW program performed well as KCP&L made process improvements. However, DE is concerned that the recent performance will be sidetracked as KCP&L contracted in 2018 for much less than its Commission approved funding level of $573,888.

Q. Which local agencies administer KCP&L's IEW?

A. KCP&L contracts with four Community Action Agencies ("CAAs") to deliver weatherization services in the KCP&L service area: West Central Missouri Community Action Agency ("WCMCAA"), Community Action Agency of Greater Kansas City

[3] 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
[4] Company's Minimum Filing Requirements, EFIS No. 5.

("CAAGKC"), Missouri Valley Community Action Agency ("MVCAA"), and Central Missouri Community Action ("CMCA").

Q. What obstacles do you anticipate to KCP&L's ability to fully expend annual IEW funds?

A. KCP&L executed over $100K less in weatherization contracts for 2018 than its stipulated funding level. The CAAs are bound by contract to keep weatherization expenditures within specified budget terms. Further, the KCP&L IEW tariff does not provide the program's funding level. Thus, CAAs cannot confer to assess if KCP&L has contracted at its full funding level. Typically, contracts are executed for a 12-month program year. KCP&L's program year is January – December. Contractually, KCP&L can recapture unspent funds from CAAs, who are behind on production, and reallocate these funds to higher performing CAAs through an amended contract process in order to fully expend program funds within the program year. This is an ideal program management practice. Unless a contract is amended, a CAA will not expend more than the contracted budget. KCP&L executed[5] $573,888 in contracts with its CAAs in 2016, $573,888 in 2017 and only $459,110 for 2018. Thus, KCP&L's IEW program will not fully expend $573,888 for program year 2018.

Q. Why do you support a funding level of $500,000 for GMO's IEW program?

A. GMO serves 282,861 residential customers[6] in communities across 31 counties. The GMO territory represents 22 additional counties and 28,106 more residential customers than KCP&L. Yet, GMO expends less on its IEW program than its sister company which results

[5] Company response to DED-DE Data Request No. 400.
[6] Company's Minimum Filing Requirements, EFIS No. 5

in less homes weatherized. GMO's weatherization funding level is set at $400,000 with another $100,000 allowed to be tracked in a deferral account. If GMO fully expended its funding level of $400,000, that would equate to a $1.41 per customer contribution annually ($400K/282,861 residential customers). If GMO expended $400,000 plus tracked another $100,000 that would equate to a $1.77 per customer contribution ($500K/282,861 residential customers). In contrast, KCP&L customers contribute $2.25 annually to the KCP&L IEW program ($573,888 funding level/254,755 KCP&L customers). However, in 2017, GMO contracted over $200K[7] less for weatherization than its sister company – even though the last rate case increased the funding level to better align GMO with KCP&L. This resulted in only 64 GMO homes weatherized compared to KCP&L's 133.

Q. Are you satisfied with the performance of GMO's IEW program?

A. No. Per the Stipulation and Agreement in Case No. ER-2016-0156, IEW was to be funded in base rates at a level of $400,000 with up to an additional $100,000 per year allowed to be recorded in a deferral account for future recovery.[8] GMO did not achieve this benchmark primarily due to its contracting practices.

Q. Which local agencies administer GMO's IEW?

A. GMO contracts with five CAAs who deliver weatherization services within the GMO's service areas: WCMCAA, CAAGKC, MVCAA, Community Services, Inc. ("CSI") – which also covers the St. Joseph communities, and Community Action Partnership of North Central Missouri ("CAPNCM").

[7] Company's Response to DED-DE Data Request No. 400
[8] Missouri Public Service Commission Case No. ER-2016-0156. *In the Matter of KCP&L Greater Missouri Operations Company's Request for Authority to Implement A General Rate Increase for Electric Service.* Non-Unanimous Stipulation and Agreement, Section 9, page 5.

Q. What obstacles do you anticipate to GMO's ability to expend over $400,000 annually for IEW as agreed to in ER-2016-0156?

A. GMO consistently awarded less than $400,000 in weatherization contracts for program years 2016, 2017, and 2018. Thus, its CAAs were unable to exceed their contracted budget amounts. Typically, contracts are executed for a 12-month program year. GMO's program year is January – December. The CAAs are bound by contract to keep weatherization expenditures within specified budget terms. Contractually, GMO can recapture unspent funds from CAAs, who are behind on production, and reallocate these funds to higher performing CAAs through an amended contract process in order to fully expend program funds within the program year. This is an ideal program management practice. Unless a contract is amended, a CAA will not expend more than the contracted budget. GMO executed[9] $237,500 in contracts with its CAAs in 2016 (while the program was still under MEEIA and not in base rates), $348,000 in 2017 and $356,000 for 2018. GMO did not expend its contracted amounts in 2016 or 2017 even though the Stipulation and Agreement to ER-2016-0156 allowed GMO to track any IEW expenditures exceeding annual rate collections for the program.

Q. What other missed opportunities could KCP&L and GMO consider to incorporate as a complement into their IEW programs?

A. The companies could consider adding contract language to incorporate missed opportunities. Since 2016, the KCP&L and GMO IEW programs have shifted policy to more closely align with the federal LIWAP, which is an evidence-based and cost-effective

[9] Company response to DED-DE Data Request No. 400.

national model. There are several benefits in this approach, such as: a whole-home methodology, installation of cost-effective measures identified through modeling software, and the program model is already in use by the CAAs. There are some missed opportunities to this approach such as (1) installing additional cost-effective measures in homes weatherized after September 1, 1994; and (2) when weatherizing rental properties allow cost-effective measures such as: refrigerators, water heaters, heating, and air conditioners.

Q. Why would re-weatherization work in a previously weatherized home be considered?

A. Homes weatherized in Missouri between 1994 and 2009 had less energy efficiency measures installed compared to homes weatherized after the start of the American Recovery and Reinvestment Act of 2009 ("ARRA"). These homes represent additional energy savings customers and KCP&L and GMO could capture. Energy efficiency technology has advanced substantially since 1994; the LIWAP has changed, and energy efficiency measures installed in 1994 have exceeded their evaluated life-span. The modeling software used by LIWAP to assess cost-effectiveness considers the life-span of each measure, which range from three to twenty years. It has been 24 years since 1994 and any installed measure has exceeded its evaluated life-span.

Q. What is the opportunity for installing additional energy efficiency measures in rental properties?

A. A whole home approach considers all possible cost-effective energy efficiency measures which can be captured as savings for the utility and the customer. Heating, air conditioners, refrigerators and water heaters can be viewed as enhancing the property for the landlord. Exclusion of these measures leaves potential for additional savings under a whole home approach. Many low-income households reside in rental properties and lack the ability to

achieve home-ownership. While low-income families can be transient, their ability to move is challenged by their: (1) ability to find affordable housing, (2) credit issues which impact their ability to establish rental agreements and utility service, and (3) transportation means to move their household. Thus, low-income customers are less likely than any other income group to be able to reduce their energy burden by moving into more energy efficient housing stock. They are also unlikely to afford or be able to make heating, refrigerator, or water heater improvements to property they do not own. Thus, low-income renters do not achieve the full energy burden reduction possible.

V. FEDERAL LOW-INCOME WEATHERIZATION ASSISTANCE PROGRAM

Q. Please describe the USDOE's LIWAP.

A. Congress established the federal LIWAP in response to the energy crisis of the early 1970s. LIWAP is the nation's largest residential energy efficiency program, and it provides cost-effective, energy-efficient home improvements to Missouri's low-income households, especially households in which the elderly, children, those with physical disadvantages, and others hit hardest by high utility costs reside. The program is intended to be a more effective, long-lasting solution to address energy insecurity. Its goal is to lower utility bills and improve comfort while ensuring health and safety. The LIWAP utilizes a "whole house retrofit" approach to building improvement. All participating homes must undergo an energy audit to identify energy efficiency and health and safety opportunities, such as malfunctioning or substandard equipment. Home efficiency and health and safety measures which have been determined to be cost effective or necessary for client health and safety are installed by trained weatherization professionals. Effective July 1, 2015, every weatherized home must pass a thorough, quality-control inspection ("QCI") by the

subgrantee before the dwelling can be reported as completed. The final inspection must certify that all repairs and installations were completed in a professional manner and in accordance with the Technical Standards.

Q. Please describe DE's administration of LIWAP.

A. DE maintains an expert team with certified technical personnel trained to ensure administration of LIWAP funds in compliance with USDOE program guidelines. DE has eight full time staff and several part time staff, whose total time is equivalent to an additional one and a half full time staff positions. Several DE staff are credentialed through certifications to ensure administration of LIWAP in compliance with USDOE program guidelines. USDOE requires some DE staff to be quality certified inspector ("QCI") certified, of which three of DE's technical staff are certified accordingly. Additionally, some DE staff are Certified Building Analysts and Certified Healthy Home Specialists. DE has fiscal management of multiple funding sources with differing expiration cycles. From 1977 through May 31, 2018, 191,168 homes in Missouri were weatherized with funds administered by DE. DE administers funds from three funding streams: USDOE, LIHEAP, and six of the state's IOUs – (Ameren Missouri Electric, Ameren Missouri Natural Gas, Spire East, Liberty Utilities, Empire District Electric Company, and Empire District Gas Company. Although, by agreement in PSC Case Nos. GR-2017-0215 and GR-2018-0013, DE will soon be transitioning the administration of Spire East and Liberty Utilities' weatherization programs back to the respective utility). DE annually submits an application to receive USDOE grant funds, which has traditionally been DE's primary source of LIWAP funding. Beginning in 2013, some LIHEAP funds transferred to DE to weatherize homes, providing a long-term – versus temporary – solution to addressing the

energy burden for low-income clients. DE does not receive any state funds for weatherization. DE administers all funds in accordance with USDOE LIWAP guidelines. DE contracts with 17 local CAAs and one non-profit organization as subgrantees to provide weatherization services to every region in the state.

Q. Please identify regulated IOU based weatherization fund sources that are not administered by DE.

A. KCP&L self-administers its weatherization program, as do KCP&L Greater Missouri Operations, Spire – West, and Summit Natural Gas. As mentioned earlier in testimony, DE will soon begin the process to transition administration of Spire East and Liberty Utilities weatherization programs back to the respective utility. Additionally, per Case No. ER-2016-0179, Ameren along with stakeholders compiled a report to the Commission regarding future administration of Ameren Electric's weatherization program.

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,"[10] Missouri households with income between 50-100 percent of the federal poverty level ("FPL") have a home energy burden of 15 percent of their annual income. The home energy burden increases to 28 percent for those households

[10] Fisher, Sheehan & Colton. (April 2018). "The Home Energy Affordability Gap 2016: Missouri," Public Finance and General Economics. Retrieved June 18, 2018 from http://www.homeenergyaffordabilitygap.com/03a_affordabilityData.html

below 50 percent of FPL.[11] This is a one percent increase from the 2017 Home energy Affordability Gap Report. 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."[12] Energy insecurity occurs when one or all of three things are experienced:[13] 1) limited or uncertain access to energy, 2) receipt of utility termination notice, and 3) actual shut-off of utility service.

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

A. A 2016 report sponsored by the American Council for an Energy-Efficient Economy ("ACEEE") analyzed data from the U.S. Census Bureau's American Housing Survey to examine energy burden for the largest 48 U.S. cities. The report concluded that low-income households paid more per square foot for energy due to energy inefficient homes. Low-income households had median annual utility costs of $1.41 per square foot while non-low-income had $1.17. This resulted in a median energy burden of 7.2 percent versus 2.3 percent.[14]

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

A. No. As a group low-income households actually use less energy than non-low income households. However, it is true that LIHEAP recipients, who receive targeted subsidies to offset energy costs, exhibit energy use resembling that of non-low income households.

[11] Fisher, Sheehan & Colton. (April 2018). "The Home Energy Affordability Gap 2016: Missouri," Public Finance and General Economics. Retrieved June 18, 2018 from http://www.homeenergyaffordabilitygap.com/03a_affordabilityData.html

[12] 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

[13] E. March. (January 2011). *Children's HealthWatch.* Behind Closed Doors, The hidden health impacts of being behind on rent.

[14] 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

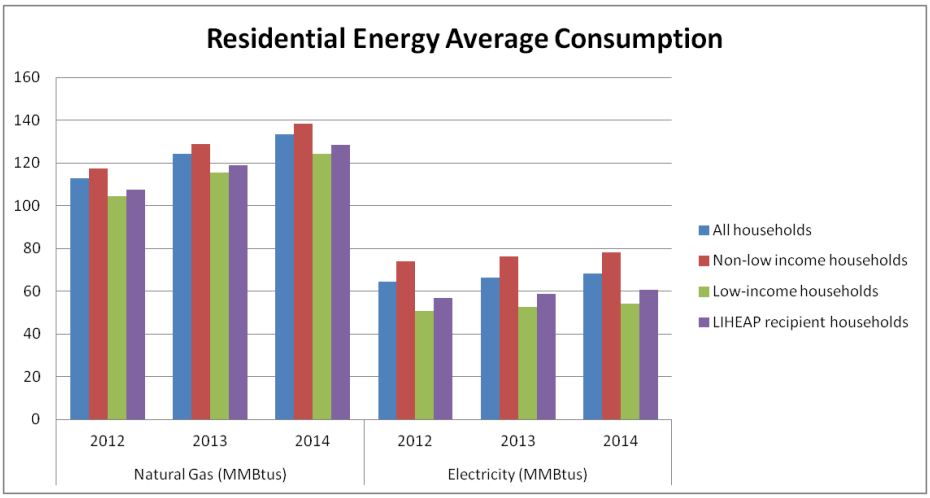
Utilities generally cannot determine household income from customer account information and can only determine low-income status by identifying accounts receiving bill assistance payments. The majority of low-income households do not receive bill assistance as a direct subsidy offsetting energy costs. Therefore, LIHEAP recipients are not representative of low-income households in general. Other data sources must be examined to evaluate average low-income household energy use relative to households at other income levels. The LIHEAP Home Energy Notebook ("Notebook") provides insight regarding the direct relationship between income and consumption (i.e.: more income, more consumption; less income, less consumption). The Notebook includes national and regional data on four categories of users: all households, non-low income households, low-income households, and LIHEAP recipient households. Below is an abbreviated copy of Table A-2 from the last published Notebook FY2014,[15] which compares average consumption per household by end user and fuel source. Midwest Households across all categories consumed more natural gas when compared to all categories of US households.

[15] *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.

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.



Low-income households, in the Midwest, consumed less electricity than all Midwestern households combined – 54.2 MMBtus versus 68.3 MMBtus (Chart 1) for FY2014, while **non**-low income households consumed more electricity than all other users – 78 MMBtus. The electricity 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.

Q. Does DE recommend allowing customer's an additional option to voluntarily contribute to weatherization, as they currently have the choice to voluntarily contribute to bill assistance?

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

VII. CONCLUSIONS

Q. Please summarize your testimony.

A. DE supports KCP&L's and GMO's administered IEW program and recommends continuing the KCP&L program at the funding level of $573,888, and GMO's program at a funding level of $500,000. Any unspent funds should be allowed to roll-forward into future program years. DE respectfully requests the Commission order the companies to convene a joint advisory group of interested stakeholders which would meet biannually to consider weatherization policy and program improvements for both companies and be a resource to address barriers to fully utilize IEW funds, and order the new advisory group to consider the policy of voluntary customer contributions to IEW through a check off box on customer bills and the on-line payment system.

Q. Does this conclude your testimony?

A. Yes.