

BEFORE THE STATE CORPORATION COMMISSION  
OF THE STATE OF KANSAS

In the Matter of the Application of )  
Westar Energy, Inc. and Kansas Gas and )  
Electric Company for Approval of ) Docket No. 15-WSEE-181-TAR  
Energy Efficiency Programs )

**APPLICATION**

COME NOW Westar Energy, Inc. (Westar North) and Kansas Gas and Electric Company (Westar South) (collectively referred to as “Westar”) and file this Application for approval of the implementation of its Small Business Lighting program, Home Energy Analysis program, and its Targeted Energy Efficiency program and for the approval of its proposal to move its WattSaver program into sunset mode. In support of its Application, Westar states:

1. Westar North and Westar South are corporations duly organized under the laws of the State of Kansas engaged, among other things, in the business of electric public utilities, as defined by K.S.A. 66-104, in legally designated areas within the State of Kansas. Westar holds certificates of convenience and authority issued by this Commission authorizing it to engage in such utility business.

2. Westar is proposing to implement three new energy efficiency programs – a Small Business Lighting (SBL) program, a Home Energy Analysis (HEA) program, and a Targeted Energy Efficiency (Targeted EE) program. Westar is also proposing to transition its WattSaver program into sunset mode.

3. Westar is providing the testimony of three witnesses in support of this Application:

Hal Jensen	Overview of Application, support for SBL and HEA programs, support for WattSaver proposal
Scott Unekis	Support for Targeted EE program

Ralph Nigro

Expert testimony regarding the SBL program, the benefit cost analysis for all three programs, and the proposal for recovery of lost margins for SBL and Targeted EE programs

4. Westar is proposing to implement three new energy efficiency programs for residential and small business customers as we transition our WattSaver program into sunset mode. Together, these programs will reach nearly all of our residential and small business customers.

5. The SBL program will extend Westar's energy efficiency offerings to the small business market segment as a natural progression from the WattSaver programmable thermostat program, which has been primarily for residential customers. As Mr. Jensen explains in his Direct Testimony, WattSaver has been a tremendously successful program, with over 58,000 installations, but has reached a point of market saturation at which it makes sense to look at another customer segment to serve with an energy efficiency program. Focusing on small business customers is a natural evolution complementary to the residential program. This program will serve the estimated 85,000 Small General Service customers in Westar's service territory. Westar will also provide new energy efficiency options to its residential customers both through the HEA program and through the Targeted EE program, both of which will allow residential customers to identify and install measures that will improve the efficiency of their homes.

6. The proposed SBL program includes an energy assessment for small business customers that evaluates the customer's needs on a customized basis and provides energy efficiency recommendations. The customer also receives up to \$500 of energy efficiency measures installed during the energy assessment and has the option for installation of additional

improvements found to be cost effective with a 40% co-pay (where the customer pays 40% of the total cost of the improvements).

7. The proposed HEA program will be offered to residential customers and will allow them to select from two different levels of energy analyses to be performed on their home for a co-pay of \$50 or \$198, depending on the level selected. The customer will also receive up to \$50 of energy efficiency measures installed during the on-site Level 1 energy analysis process.

8. The proposed Targeted EE program will provide energy audits and cost effective weatherization improvements at no cost to income qualified residential customers.

9. Westar's proposal for its WattSaver program is to discontinue both new and replacement installations of the current WattSaver thermostat but continue to utilize the demand respond capability of the thermostats already installed. Westar is proposing to continue to maintain current service levels in regards to answering the toll-free WattSaver hotline and providing service in the field. However, if the thermostat is determined to be faulty, no replacement would be made.

10. Westar is providing documents containing the answers to the eight questions as required by the Commission in Appendix A of its Final Order in Docket No. 08-GIMX-441-GIV for the three proposed energy efficiency programs. These documents are included for the SBL program and the Home Energy Analysis program as Exhibits HJ-1 and HJ-2 to Mr. Jensen's Direct Testimony and for the Targeted EE program as Exhibit SU-1 to Mr. Unekis' Direct Testimony.

11. Westar requests Commission approval of recovery of the costs associated with these new energy efficiency programs through the Energy Efficiency Rider and also requests recovery of lost margins associated with the SBL and Targeted EE programs through a shared

savings mechanism similar to the one approved by the Commission for Westar's Simple Savings program. *See Order Approving Partnership between Efficiency Kansas and Westar's Simple Savings Program*, Docket No. 10-WSEE-775-TAR (Simple Savings Order), ¶¶ 26-32.

12. As Mr. Jensen and Mr. Nigro explain, application of a lost margins recovery mechanism to the SBL program is appropriate because the SBL program involves customized assessments of energy efficiency improvements for each customer on a case-by-case basis, allowing the savings that result from those improvements to be directly measured.

13. Mr. Unekis explains that the Targeted EE program should qualify for the application of a lost margins recovery mechanism because it is a "whole-house" program and because it benefits low or fixed-income customers or renters. In its Final Order in Docket No. 08-GIMX-441-GIV, the Commission found that programs fitting within the "whole house concept" and/or programs that benefitted low or fixed-income customers or renters would be most likely to qualify for a shared savings mechanism, such as the lost margins recovery mechanism Westar is proposing. Final Order, Docket No. 08-GIMX-441-GIV, at ¶¶ 97-99.

WHEREFORE, Westar respectfully requests that the Commission issue an order approving its proposed energy efficiency programs and its proposal to transition its WattSaver program to sunset mode and approving its proposal for cost recovery for all three new energy efficiency programs through the Energy Efficiency Rider, including the recovery of lost margins for the SBL and Targeted EE programs.

Respectfully submitted,

WESTAR ENERGY, INC.  
KANSAS GAS AND ELECTRIC COMPANY

Cathryn Dinges

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**VERIFICATION**

STATE OF KANSAS                    )  
  )  
COUNTY OF SHAWNEE            )        ss:

Cathryn J. Dinges, being duly sworn upon her oath deposes and says that she is the attorney for Westar Energy, Inc. and Kansas Gas and Electric Company; that she is familiar with the foregoing **Application** that the statements therein are true and correct to the best of her knowledge and belief.

Cathryn Dinges

Cathryn J. Dinges

SUBSCRIBED AND SWORN to before me this 28<sup>th</sup> day of October, 2014.



Debbielee A. Papps

Notary Public

My Appointment Expires: June 26, 2017

**BEFORE THE STATE CORPORATION COMMISSION  
OF THE STATE OF KANSAS**

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**DIRECT TESTIMONY  
OF  
HAL JENSEN  
ON BEHALF OF  
WESTAR ENERGY, INC.**

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**DOCKET NO. \_\_\_\_\_**

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**I. INTRODUCTION**

**Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

A. Hal L. Jensen, 818 S. Kansas Avenue, Topeka, Kansas.

**Q. BY WHOM AND IN WHAT CAPACITY ARE YOU EMPLOYED?**

A. Westar Energy, Inc. (Westar). I am Executive Director, Customer Programs and Services.

**Q. PLEASE DESCRIBE YOUR ELECTRIC UTILITY EXPERIENCE AND YOUR EDUCATION.**

A. I have worked for 22 years for Westar in varying positions including field operations and customer service. I have a BBA from Washburn University.

**II. SUMMARY OF TESTIMONY**

**Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

1 A. I will discuss Westar’s proposal to implement a portfolio of three  
2 new energy efficiency programs – the Small Business Lighting  
3 (SBL) program, the Targeted Energy Efficiency (Targeted EE)  
4 program, and the Home Energy Analysis (HEA) program – and to  
5 transition our WattSaver program to sunset mode. I will provide an  
6 overview of the SBL program and the HEA program and discuss  
7 our proposal with respect to the WattSaver program. Westar is  
8 also providing the testimony of two additional witnesses to support  
9 our Application:

10	Scott Unekis	Discuss Targeted EE program
11		
12	Ralph Nigro	Discuss benefit-cost analysis for all
13		three programs, discuss proposal for
14		recovery of lost margins for the SBL and
15		Targeted Energy Efficiency programs,
16		and provide additional information
17		regarding other SBL programs in the
18		electric industry
19		

20 **Q. PLEASE SUMMARIZE WESTAR’S PROPOSAL IN THIS**  
21 **DOCKET.**

22 A. Westar is proposing to implement three new energy efficiency  
23 programs for residential and small business customers as we  
24 transition our WattSaver program into sunset mode. Together,  
25 these programs will reach nearly all of our residential and small  
26 business customers.

27 The SBL program includes an energy assessment for small  
28 business customers that evaluates the customer’s needs on a

1 customized basis and provides energy efficiency recommendations.  
2 The customer also receives up to \$500 of energy efficiency  
3 measures installed during the energy assessment and has the  
4 option for installation of additional improvements found to be cost  
5 effective with a 40% co-pay (where the customer pays 40% of the  
6 total cost of the improvements).

7 The HEA program will be offered to residential customers  
8 and will allow them to select from two different levels of energy  
9 analyses to be performed on their home for a co-pay of \$50 Level 1  
10 or \$198 Level 2, depending on the level selected. The customer  
11 will also receive up to \$50 of energy efficiency measures installed  
12 during the on-site Level 1 energy analysis process.

13 The Targeted EE program will provide energy audits and  
14 cost effective weatherization improvements at no cost to income  
15 qualified residential customers.

16 We are requesting Commission approval of recovery of the  
17 costs associated with these new energy efficiency programs  
18 through our Energy Efficiency Rider and are also requesting  
19 recovery of lost margins associated with the SBL and Targeted EE  
20 programs through a shared savings mechanism similar to the one  
21 approved by the Commission for Westar's Simple Savings  
22 program. *See Order Approving Partnership between Efficiency*

1           *Kansas and Westar's Simple Savings Program*, Docket No. 10-  
2           WSEE-775-TAR (Simple Savings Order), ¶¶26-32.

3           Attached as Exhibits HJ-1 and HJ-2, respectively, are  
4           documents providing answers to the eight questions as required by  
5           the Commission in Appendix A of its Final Order in Docket No. 08-  
6           GIMX-441-GIV for the SBL program and the Home Energy Analysis  
7           program. Mr. Unekis provides as Exhibit SU-1 the answers to  
8           these questions for the Targeted EE Program. We are including  
9           initial five-year budgets for each of the programs as part of these  
10          exhibits, as required by the Commission's application requirements.  
11          We will provide future-year budgets to Commission Staff upon  
12          request. Please note that the SBL and HEA programs are being  
13          submitted as three year programs. These programs are designed  
14          to be high impact, quick start programs which deliver maximum  
15          value in the three-year time frame.

16          **Q.   HOW DID WESTAR DEVELOP THE INFORMATION YOU**  
17          **PRESENT IN YOUR TESTIMONY REGARDING THE SBL AND**  
18          **HEA PROGRAMS?**

19          A.   We worked closely with Applied Energy Group (AEG), a  
20          management consulting firm that provides an array of innovative  
21          consulting services to its clients in the energy business, and  
22          Franklin Energy Services (Franklin), the third-party vendor that has  
23          been selected to implement Westar's SBL and HEA programs.

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**III. SMALL BUSINESS LIGHTING PROGRAM**

**A. Introduction**

**Q. PLEASE SUMMARIZE WESTAR’S SBL PROPOSAL IN THIS DOCKET.**

A. Westar’s proposal SBL program is designed to increase the electric energy efficiency of Small General Service (SGS) customers in Westar’s service territory through increased efficiency awareness, education and the installation of efficient lighting measures. The proposed SBL program will provide customers a range of options, from basic to comprehensive energy saving measures, through a program designed to educate customers and increase the installation of energy savings measures. SGS customers are those non-residential accounts with billing demand less than 200 kW per month.

Westar recognizes the critical role that small businesses play in the State of Kansas, and more specifically, within our service area. The Small Business Profile for Kansas (published by the SBA in 2013) reports that small businesses have a significant impact on the Kansas economy, representing 96.6% of all employers and employing 594,623 workers in 2010, with most of the employment coming from firms with 20-499 employees.

Traditional barriers to small business participation in efficiency programs include a lack of awareness, available capital and time. The SBL program is designed with these factors in mind,

1 incorporating efficiency educational messaging, an affordable  
2 financing option and a fast and efficient on-site assessment that  
3 enables small business owners to participate in the program at their  
4 convenience. The overall goal is to create a market that is  
5 educated on the benefits of efficient operations and has trained  
6 providers in the market place that can carry forward these benefits.

7 **Q. HOW DOES THE SBL PROGRAM FIT WITHIN WESTAR'S**  
8 **ENERGY EFFICIENCY PORTFOLIO?**

9 A. The SBL program extends Westar's efficiency offerings to the small  
10 business market segment as a natural progression from the  
11 WattSaver programmable thermostat program, which has been  
12 primarily for residential customers. WattSaver has been a  
13 tremendously successful program, with over 58,000 installations,  
14 but has reached a point of market saturation. It makes sense to  
15 look at another customer segment to serve with an energy  
16 efficiency program. Focusing on our small business customers is a  
17 natural evolution complementary to the residential program. This  
18 program will serve approximately 85,000 SGS customers in Westar  
19 service territory.

20 Westar's SBL program is part of a comprehensive offering of  
21 energy efficiency programs for many of Westar's customer classes.  
22 The portfolio provides immediate energy savings, as well as long  
23 term savings, through education and partnership with customers

1 and market providers. The WattSaver and proposed Targeted EE  
2 and HEA programs primarily serve residential customers and the  
3 proposed SBL program will serve small commercial customers.

4 Westar also launched an enhanced small business online  
5 dashboard in September 2014. This web-based dashboard will  
6 provide business customers with energy usage profile information  
7 and industry benchmarking data, as well as energy savings tips and  
8 insights, based on customized customer profile data. The energy  
9 dashboard for business will serve as an important channel for  
10 communications of the SBL program and demonstrates Westar's  
11 commitment to driving energy savings while enhancing the  
12 customer experience across the small business customer segment.

13 **Q. WHY DOES WESTAR WANT TO OFFER CUSTOMERS A SBL**  
14 **PROGRAM OPTION?**

15 A. There are approximately 85,000 SGS customers that will be eligible  
16 for the SBL program. However, these small business customers  
17 are considered "hard to reach" with conventional efficiency  
18 programs, where customers are required to initiate the project and  
19 application processes. Key to offering energy efficiency programs  
20 in general, and a small business program specifically, is providing  
21 education and training to both the small business customers and  
22 the trade ally population on how to identify opportunities for making  
23 an investment in reducing physical plant operating costs (lighting

1 systems, space conditioning, etc.). According to the SBA, most  
2 small businesses in Kansas have less than 10 employees. In  
3 businesses of this size, the owner or manager generally do not  
4 have time available to proactively look at their energy use to  
5 determine if there is a positive economic impact to considering  
6 lighting retrofits, etc.

7 Many of these businesses are owned by local Kansans who  
8 are working hard to grow their business and provide good  
9 employment for others but simply do not have the time to spend on  
10 energy efficiency. Our proposed SBL program will bring experts to  
11 them and provide full facilitation of the energy review,  
12 recommendations and installation of energy saving measures. The  
13 program will hire other Kansans to do the majority of the work,  
14 helping yet another group of small business owners in our state.  
15 As our local businesses save on energy, they are able to invest  
16 more in growing their business and that is something that is  
17 important to all of our customers.

18 The SBL program is designed to assist small business  
19 owners in bringing operational costs to their attention; to help them  
20 understand they can influence how much they spend on utilities;  
21 and to connect them with qualified providers in the market to assist  
22 them with improvements.

1       **Q.    WHY ARE YOU FOCUSING ON LIGHTING WITH THIS**  
2       **PROGRAM?**

3       A.    Energy efficiency potential studies often report consumption by end  
4       use, but seldom or never separate small business consumption out  
5       from overall commercial consumption.  Since eligibility under the  
6       Westar Small Business Program is defined as businesses with  
7       peak demand under 200kW, a very high percentage of commercial  
8       customers will be eligible and commercial end uses will very closely  
9       approximate small businesses end uses.  Based on the averages  
10      from three recent potential studies in other states, we built an  
11      estimate of electricity consumption by end use for small businesses  
12      in Westar territory<sup>1</sup>.  As is typical, lighting is the highest single use,  
13      at an estimated 35% of electricity consumption.  Combined HVAC  
14      (Heating, Ventilation, and Cooling) is a closed second at 34% of  
15      consumption.  The figure below depicts the full set of estimated  
16      consumption by use.

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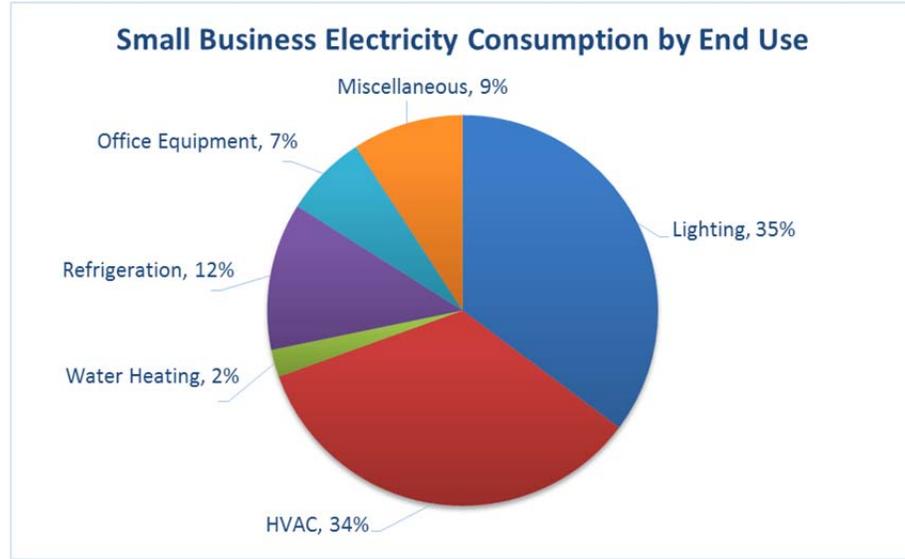
<sup>1</sup> Enernoc, 2013. *Electric Demand Side Management: Market Potential Study and Action Plan*. (for Vectren Energy Delivery of Indiana).

GDS Associates, 2012. *Electric Energy Efficiency Potential for Pennsylvania*.

GDS Associates, 2013. *Michigan Electric and Natural Gas Energy Efficiency Potential Study*.

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**Figure 1. Small Business Electricity Consumption by End Use**



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Based on this information, a SBL program is the approach that has the greatest likelihood of uptake with the best cost effectiveness.

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***B. Details of Westar's SBL Program***

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**Q. PLEASE PROVIDE MORE DETAILS REGARDING WESTAR'S PROPOSED SBL PROGRAM.**

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A. The SBL program will include four primary services available to eligible customers:

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1) A free in-person energy assessment (often referred to as an audit) meeting American Society of Heating/Refrigerating and Air-Conditioning Engineers (ASHRAE) Level 1 standards provided by trained energy advisors.

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o The informative assessment report will have upgrade recommendations delivered directly to the customer

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1 and opportunities to choose energy efficiency options  
2 from direct installation to full project completion by  
3 qualified contractors. The assessment report will  
4 provide a clear path to investment options with the  
5 energy savings/cost savings benefits.

6 2) Up to \$500 of energy efficient measures directly installed  
7 free of charge by the energy advisor. These direct install  
8 measures will be provided while the energy advisor is on-site  
9 for the audit. Customers can select from a list of products  
10 with support from the energy advisor. This gives them  
11 flexibility to choose the right products to fit their business.

12 3) Additional measures available through a fixed fee with a  
13 40% co-pay by the customer and the remaining 60% paid for  
14 using SBL program funds; installed by local trade allies  
15 working with the program. These additional measures are  
16 known as prescriptive incentives.

17 4) A deferred payment option (0% interest financing through  
18 Franklin Energy).

19 **Q. WHY DO YOU PROPOSE TO PROVIDE UP TO \$500 OF DIRECT**  
20 **INSTALL MEASURES AT NO COST TO PARTICIPATING**  
21 **CUSTOMERS?**

22 A. Providing up to \$500 of direct install measures to customers is  
23 often referred to as a “jump start” tactic as it creates immediate

1 engagement with a potential program participant and they receive  
2 immediate benefit from the energy efficiency products. In addition,  
3 installation of these measures leverages the efforts of the energy  
4 advisor and ensures, as much as possible, that each customer  
5 contact will result in some energy efficiency improvements.

6 **Q. WHAT PRODUCTS ARE AVAILABLE AS PART OF THE \$500**  
7 **DIRECT INSTALL MEASURES?**

8 A. Products available for free installation include:

- 9       ▪ CFL lamps (14,19, 23 W)
- 10       ▪ Decorative LED lamps (25, 40, 60 W equivalents)
- 11       ▪ Directional LED lamps (all watt and lamp equivalents)
- 12       ▪ Omni-directional LED lamps (40, 60, 75, 100 W equivalents)
- 13       ▪ Low-flow bathroom aerators (electric water heat)
- 14       ▪ Low-flow kitchen aerators (electric water heat)
- 15       ▪ Low-flow pre-rinse sprayers (electric water heat)
- 16       ▪ Occupancy controls for vending machines and refrigerated  
17               cases

18 **Q. HOW WILL YOU DETERMINE WHAT PRESCRIPTIVE**  
19 **INCENTIVES A CUSTOMER QUALIFIES FOR?**

20 A. A list of predetermined prescriptive measures has been developed  
21 for the proposed program. Appropriate measures will be selected  
22 for each customer's project based on the site audit by Franklin  
23 Energy. A prescriptive incentive has been established for each

1 measure, and Installation Contractors will have agreed to offer  
2 these measures at a predetermined fixed price, along with the  
3 predetermined incentives. This allows both the customer and the  
4 utility to know how much the project will cost up front, including  
5 incentives. Each of these measures has been evaluated for cost-  
6 effectiveness as part of the program design.

7 **Q. WHY DID YOU SET THE CO-PAY AMOUNT FOR CUSTOMERS**  
8 **AT 40% OF THE COST OF THE PRESCRIPTIVE INCENTIVES?**

9 A. Most often, products with higher efficiency levels are more  
10 expensive than those with lower efficiency levels and small  
11 businesses might not be motivated to spend the extra money to buy  
12 a more efficient product. The 60% contribution by the SBL program  
13 to the cost of an improvement is intended to buy down the cost of  
14 the higher priced, more efficient product. A 60/40 split has been  
15 found to be the tipping point where customers feel they are able to  
16 financially support the project. By reducing the difference between  
17 the cost to customers for standard and high performance pricing  
18 thresholds we are able to remove the higher cost of efficient  
19 products as a barrier to participation.

20 This split is also at a level that is generally accepted by the  
21 evaluation community that reduces free ridership. If incentives are  
22 not set high enough to reduce the cost differential between  
23 standard and high efficiency measures to move a participant to

1 action, it does not actually incent a non-free rider and simply acts to  
2 buy down the cost of a measure that a participant was already  
3 planning to install.

4 **Q. WHY ARE YOU OFFERING A DEFERRED PAYMENT OPTION**  
5 **TO PARTICIPATING CUSTOMERS?**

6 A. Small business owners who want to make energy efficiency  
7 improvements sometimes lack the needed capital to invest in the  
8 prescriptive incentives. This is particularly problematic when  
9 Installation Contractors require up-front and/or full payment upon  
10 project completion.

11 To help small business owners cover their share of project  
12 costs not covered by Westar's incentives, Franklin will offer a  
13 deferred financing option, subject to an application fee of \$40. This  
14 option will allow customers to pay in six equal installments at 0%  
15 interest rate. Eligibility requirements for financing are (1) minimum  
16 customer co-pay of \$1,000 and (2) verification from Westar that the  
17 customer is current on his or her electric bill. Payments will be  
18 handled through ACH debit transactions initiated by Franklin. A  
19 process map illustrating Franklin's deferred financing option is  
20 included in Exhibit HJ-3.

21 This proposed deferred financing option helps small  
22 businesses overcome the financial barrier by allowing them to  
23 make monthly installment payments. Furthermore, Installation

1 Contractors receive immediate payment for services without risk of  
2 customer default and without financing burdens placed on their  
3 businesses. Franklin will fully fund the deferred financing option  
4 provided to Westar's customers.

5 **Q. HOW WILL WESTAR MANAGE THE SBL PROGRAM?**

6 A. Westar is proposing to use a third-party provider to administer the  
7 program.

8 **Q. WHAT THIRD-PARTY PROVIDER IS WESTAR PROPOSING TO**  
9 **USE TO IMPLEMENT THE SBL PROGRAM?**

10 A. Westar is asking the Commission to approve the program in a way  
11 that gives Westar the discretion to adjust the third-party provider if  
12 necessary in the future without making an additional filing with the  
13 Commission. However, Westar is currently planning to use  
14 Franklin Energy to manage and execute the Small Business  
15 Lighting program. The SBL program will be branded exclusively as  
16 a Westar program, with Franklin conducting all program operations  
17 under the Westar brand.

18 Franklin is one of the largest implementers of energy  
19 efficiency programs in the United States with over 20 years of  
20 experience in delivering energy efficiency programs to small  
21 business, commercial, industrial, residential, multifamily, and  
22 agricultural customers.

1                   Headquartered in Wisconsin, Franklin Energy has  
2 approximately 350 employees located in 25 offices in 13 states with  
3 the strongest presence in the Midwest. Franklin currently enables  
4 37 utility clients to deliver 85 energy efficiency programs to  
5 customers in 18 states.

6       **Q.   HOW WAS FRANKLIN CHOSEN AS THE SERVICE PROVIDER?**

7       A.   Franklin Energy was selected through Westar’s RFP process,  
8 which included bids from six competing service providers. Franklin  
9 Energy’s selection was based on a successful and demonstrable  
10 track record in achieving both market transformation and  
11 penetration for energy efficiency programs for small business  
12 customers in conjunction with other utilities at reasonable costs.  
13 Franklin differentiated itself from competitors through the design  
14 and delivery of a program that met the specific requirements of both  
15 Westar and our customers.

16           Franklin has proven methods for managing programs,  
17 conducting marketing and outreach, supporting customers in  
18 project implementation, verifying installations and tracking and  
19 reporting program data. Franklin Energy’s sole business model is  
20 to provide energy efficiency program services as an unbiased third-  
21 party to utilities and it has a proven record of performance.

22           Franklin has a strong record of economic development and job  
23 creation and relies on local contractors as an integral part of

1 program execution. Franklin also demonstrated a commitment to  
2 hiring local Kansas staff in order to execute the Westar SBL  
3 program.

4 **Q. HOW WILL YOU DETERMINE PROGRAM SUCCESS OR**  
5 **FAILURE?**

6 A. The majority of energy efficiency programs across the country are  
7 subject to third party evaluation of program impacts (kWh and kW  
8 savings) and their effectiveness in influencing action by program  
9 participants. Based on evaluations of SBL programs across the  
10 country, the program design approach being proposed for this  
11 program has received typically high realization rates and net to  
12 gross results. For the SBL program, we will track and report on the  
13 performance metrics in Exhibit HJ-4.

14 The term “realization rates” refers to two related items for  
15 ensuring the technical accuracy of savings. First is the accurate  
16 calculation of savings for a measure, based on the measure type,  
17 accepted savings from the original measure, accurate usage times  
18 and ensuring there have been no mathematical or calculation  
19 errors. The second component is simply ensuring the measure is  
20 in place; that it has been installed, that the count of the measures  
21 installed is accurate and that they are in fact, realizing the savings  
22 as calculated and documented.

1                   Net-to-gross ratio is a component of program-level  
2 evaluation, measurement, and verification. This ratio is an estimate  
3 of savings that were the direct result of the program. For example,  
4 if a program achieves 100,000 kWh of savings and has a net to  
5 gross ratio of .90 or 90%, the evaluator has determined that the  
6 program is the reason for 90,000 kWh saved but that 10,000 kWh  
7 of savings would have occurred even without the program.

8                   Please refer to the National Action Plan for Energy Efficiency  
9 (2008) for additional information.     *Understanding Cost-*  
10 *Effectiveness of Energy Efficiency Programs: Best Practices,*  
11 *Technical Methods, and Emerging Issues for Policy-Makers.*  
12 *Energy and Environmental Economics, Inc. and Regulatory*  
13 *Assistance Project, [www.epa.gov/eeactionplan](http://www.epa.gov/eeactionplan).*

14     **Q.   WHO WILL INSTALL THE DIRECT INSTALL MEASURES**  
15     **SELECTED BY CUSTOMERS?**

16     A.   We will use local Installation Contractors to install the products  
17 selected by customers. We believe this is critical to both short-term  
18 success in meeting energy savings goal and to long-term  
19 development of local resources.

20                   To participate in the program, an Installation Contractor will  
21 have agreed to the parameters of the program and to standard  
22 pricing for specific products and will agree to work in collaboration  
23 with the program to assist customers. These local contractors also

1 benefit from participating in the SBL program because they develop  
2 additional business skill and expertise in energy efficiency.

3 The SBL program is designed to develop local contractors to  
4 embrace energy efficiency projects as part of their business model.  
5 Like engaging small business customers, the program will  
6 showcase the ease of participation and the benefits of participating.  
7 Franklin will position the contractors throughout Westar's service  
8 territory in parallel with our targeted marketing campaigns to ensure  
9 that the program is available to all of Westar's small business  
10 customers.

11 Franklin Energy has identified 442 contractors in Kansas that  
12 have potential for working with the program. We expect to recruit  
13 approximately 40 active Installation Contractors, who will average  
14 10 projects per year in order to meet program goals. Their activity  
15 will dictate additional recruitment efforts in addition to the need for  
16 enhanced training and monitoring.

17 **Q. WHAT IS THE TYPICAL PROCESS AN ELIGIBLE CUSTOMER**  
18 **WILL FOLLOW WHILE PARTICIPATING IN THE SBL**  
19 **PROGRAM?**

20 A. The process a customer will follow while participating in the SBL  
21 program is outlined in Exhibit HJ-5.

22 **Q. WILL THERE BE ANY TRAINING FOR CONTRACTORS THAT**  
23 **PARTICIPATE?**

1 A. Yes. The program will rely on an extensive training and education  
2 component to develop the participating contractors. The program is  
3 designed to increase contractor competency in the marketplace  
4 through energy efficiency training through technology updates,  
5 customer service skill development and sales training. This will  
6 result in longer lasting impacts in contractor performance. Exhibit  
7 HJ-6 provides a summary of the training Franklin Energy plans to  
8 offer.

9 **Q. HOW WILL THE SBL PROGRAM BE MARKETED TO**  
10 **CUSTOMERS?**

11 A. The SBL program will be marketed to small businesses through  
12 traditional media, advertisements, events, direct mail, electronic  
13 media, social media, outreach via business organizations and  
14 community events and other channels. The objectives of the SBL  
15 program marketing campaign will be to increase awareness and  
16 drive leads. Westar will also utilize its new business energy web-  
17 based dashboard to promote the SBL program and drive adoption.  
18 We have also had conversations with the Kansas Energy Office  
19 regarding co-promotion of the program and would continue to  
20 develop that as appropriate.

21 **Q. WHY IS IT NECESSARY TO USE ALL OF THESE MARKETING**  
22 **CHANNELS?**

1 A. Building program awareness will be a significant challenge as small  
2 business customers tend to be classified as “hard to reach.”  
3 Through proven industry experience, Franklin Energy has found  
4 that the most effective way to capture the attention of small  
5 business customers is to layer multiple tactics in a campaign. In this  
6 way, the tactics support each other and have a greater impact  
7 compared to a myopic, singular approach. Once the SBL program  
8 receives regulatory approval, a comprehensive marketing strategy  
9 will be developed and implemented in order to drive customer  
10 awareness and adoption.

11 **Q. WHAT STEPS WILL BE TAKEN TO ENCOURAGE PROGRAM**  
12 **PARTICIPANTS TO ACT ON RECOMMENDATIONS?**

13 A. Part of the marketing and outreach process is identifying strong  
14 candidates who will act on recommendations. A careful balance  
15 must be struck between simply providing education to an owner  
16 through the site assessment and ensuring cost effective delivery by  
17 working with owners who will act on the information.

18 Maintaining a balance between providing education to  
19 participants and focusing on those that will also act on the  
20 recommendations is critical to maintaining program cost  
21 effectiveness.

22 The program will use a cascading approach to focus on  
23 “qualified” leads through an initial screening process to ensure that

1 program resources are focused on attaining maximum benefit. A  
2 matrix of questions will be developed for use by program staff or  
3 Installation Contractors.

4 **Q. HOW WILL PROGRAM DATA BE COLLECTED AND**  
5 **MANAGED?**

6 A. The SBL program will maintain a full database that will track all  
7 direct install and prescriptive projects and provide all customer and  
8 project data (including the Installation Contractor that supported the  
9 project). The database has Customer Relationship Management  
10 (CRM) capabilities to track customer interactions to support all  
11 analysis and any needed evaluation data.

12 The program will also utilize an electronic field data  
13 collection tool to conduct the project site assessment and track  
14 direct install savings by documenting all products installed. The  
15 field data collection tool provides efficiencies in implementation and  
16 reduced reporting errors by reducing duplicate data entries.

17 **C. *Benefits of the SBL Program***

18 **Q. WHAT ENERGY SAVINGS ARE EXPECTED AS A RESULT OF**  
19 **THE SBL PROGRAM?**

20 A. We estimate that 70 – 75% of energy savings from the SBL  
21 program will come from installation contractor projects and 25 –  
22 30% from the direct install measures completed during the initial

1 site assessment visit. The Table below summarizes the expected  
2 gross energy savings from the SBL program.

3 **Table 1. Expected Energy Savings for SBL Program**

Metric	Program Year 1	Program Year 2	Program Year 3	Total
Facility Assessments	890	1,100	1,320	3,310
Number of Projects installed by ICs	356	440	528	1,324
Energy Savings (kWh)	5,751,895	7,111,731	8,532,904	21,396,530
Total Cost per kWh	\$0.313	\$0.271	\$0.264	\$0.279

4

5 **Q. WHY DO THESE CHANGES IN ENERGY USAGE OCCUR?**

6 A. The expected energy and demand savings come primarily from  
7 improvements in lighting efficiency. In most cases, the savings  
8 arise from replacements of older, less efficient lighting technologies  
9 with new technologies. These include high performance T-8  
10 fluorescent lighting, compact fluorescent lamps, solid state lighting  
11 (LEDs) and others. In addition, savings occur through better  
12 utilization of existing or new lighting by installing lighting controls  
13 and fixture de-lamping in overlit areas.

14 Related savings come from reduced air-conditioning needs.  
15 The higher performance lighting produces significantly less heat  
16 and therefore reduces space cooling needs in summer months.  
17 Lighting is typically a significant contributor to interior heat gain.  
18 Fluorescent and LED lighting can reduce interior heat gain from  
19 lighting from 60 – 90% compared to incandescent and halogen  
20 lighting.

1       **Q.    WHAT ARE THE RESULTS OF THE BENEFIT-COST TESTS**  
2               **REQUIRED BY THE COMMISSION WHEN APPLIED TO THE**  
3               **SBL PROGRAM?**

4       A.    The results of the benefit-cost analyses conducted by Mr. Nigro are  
5               summarized in the following table<sup>2</sup>:

6                               **Table 2. SBL Program Benefit-Cost Results**

Test	Benefit-Cost Ratio
TRC	1.14
RIM	0.31
PCT	7.59
UCT	1.11
SCT	1.14

7                       As indicated from the results above, the SBL program  
8                       passes all but one of the benefit-cost tests required by the  
9                       Commission. These test results are explained in greater detail in  
10                      Mr. Nigro's Direct Testimony. As he explains, the SBL program is  
11                      cost effective because it passes the TRC test with a benefit-cost  
12                      ratio of 1.14.

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<sup>2</sup> A detailed description of the benefit-cost model used in the analysis can be found in Ralph Nigro's Direct Testimony.





1 completed, overall, the reaction to Westar’s proposal was positive,  
2 pending additional information.

3 **Q. WHERE ARE THE CUSTOMERS WESTAR BELIEVES WILL**  
4 **PARTICIPATE IN THIS PROGRAM LOCATED?**

5 A. Of the estimated 85,000 small businesses eligible for the program  
6 in Westar service area, over 61,000 of them are located in the 20  
7 largest municipalities, with approximately 77% of them located in  
8 the five largest metro areas of Wichita, Kansas City, Topeka,  
9 Lawrence, and Manhattan.

10 **Q. ARE THERE SPECIFIC TYPES OF CUSTOMERS WESTAR**  
11 **PLANS TO TARGET WITH THIS PROGRAM?**

12 A. Yes. Targeting specific sub-segments within the small business  
13 market is a cost-effective means of achieving energy savings. The  
14 SBL program will target business types with high energy intensities.  
15 The Table below lists a sample of the types of small business  
16 segments that would be included in specific group targeting for a  
17 SBL program.

18 **Table 4. Key SBL Program Market Segments**

Key Target Market Segments
Grocers and Food Markets
Convenience Stores
Eating and Drinking Places
Churches
Offices of Health Care Providers
Wholesale and Distribution
Small Manufacturing

19

1       **Q.     CAN YOU PROVIDE AN EXAMPLE OF ANOTHER UTILITY’S**  
2       **EXPERIENCE WITH A SBL PROGRAM?**

3       A.     One example is the Commonwealth Edison, Peoples Gas and  
4       North Shore Gas (Illinois) Small Business Energy Savings (SBES)  
5       Program, which began in 2011. This program provides proactive  
6       outreach to customers, detailed assessments, installation of energy  
7       saving products, and provides customers with a list of  
8       recommendations for additional upgrades that the utility program  
9       supports through prescriptive and custom incentives. The program  
10      achieved 212% of its kWh savings goal in the 2012-2013 program  
11      year.

12             A second example is Xcel Energy’s (Colorado and New  
13      Mexico) Small Business Lighting Program, which began in 2009.  
14      The program provides proactive, targeted outreach to Xcel Energy  
15      small business customers (<400kW demand). Energy advisors  
16      perform assessments, calculate savings potential, provide  
17      customers with education and detailed recommendations and  
18      facilitate implementation through the program’s registered trade  
19      allies. The program has completed over 4,300 assessments since  
20      the program began with savings of 33,800,000 kWh in 2012 and  
21      16,650,000 kWh in 2013, exceeding program goals each year.

1 **E. Cost Recovery**

2 **Q. HOW WILL WESTAR RECOVER THE COSTS ASSOCIATED**  
3 **WITH THE SBL PROGRAM?**

4 A. Westar requests Commission approval to recover the costs of the  
5 SBL program through our Energy Efficiency Rider, in the same  
6 manner as all of the other programs in our energy efficiency  
7 portfolio.

8 **Q. IS THAT THE ONLY RECOVERY MECHANISM REQUESTED?**

9 A. No. Westar is also requesting Commission approval for recovery of  
10 the lost margins associated with implementation of the SBL  
11 program. The lost margin recovery mechanism is similar to the  
12 mechanism the Commission approved in Westar's Simple Savings  
13 program and is described in detail in Ralph Nigro's Direct  
14 Testimony.

15 **Q. WHY SHOULD THE COMMISSION ALLOW WESTAR TO**  
16 **RECOVER LOST MARGINS ASSOCIATED WITH THE**  
17 **PROPOSED PROGRAM?**

18 A. The recovery of lost margins for the proposed program is consistent  
19 with Commission precedent. In its Final Order in Docket No. 08-  
20 GIMX-441-GIV, the Commission found that programs fitting within  
21 the "whole house concept" and/or programs that benefitted low or  
22 fixed-income customers or renters would be most likely to qualify  
23 for a shared savings mechanism, such as the lost margin recovery

1 mechanism we are proposing. Final Order, Docket No. 08-GIMX-  
2 441-GIV, at ¶¶ 97-99.

3 The Commission's focus on whole-house concept is likely  
4 because those types of programs involve an audit for each house  
5 that identifies specific measures and savings on a case by case  
6 basis and do not take a generic approach to energy efficiency. This  
7 allows the administrator of the program to have confidence in the  
8 energy efficiency savings that occur as a result of the program.  
9 The SBL program is similar in these respects to a whole-house  
10 program. An analysis is conducted for each participating customer  
11 that identifies cost-effective energy efficiency measures on an  
12 individualized basis. This customized approach makes the savings  
13 that result from the program more verifiable and makes the  
14 program a good fit for a lost revenue recovery mechanism.

15 The Commission also approved the use of a similar lost  
16 margin recovery mechanism for Westar's Simple Savings program.  
17 *See Order Approving Partnership between Efficiency Kansas and*  
18 *Westar's Simple Savings Program*, Docket No. 10-WSEE-775-TAR  
19 (Simple Savings Order), ¶¶26-32. In the Simple Savings docket,  
20 the Commission explained:

21 Although the Commission may not favor  
22 particular forms of recovery in isolation of  
23 specific energy-efficiency programs, the  
24 Commission is willing to consider and evaluate  
25 proposals as it gains more knowledge and  
26 expertise in the area of energy efficiency. The

1 Commission is willing to consider varying forms  
2 of recovery tied to programs that the  
3 Commission believes will achieve its  
4 established goal of utilizing energy efficiency  
5 as a resource to achieve a balanced approach  
6 between traditional and alternative energy  
7 sources to meet Kansas energy needs.

8 Simple Savings Order, At ¶ 27. The lost margin recovery  
9 mechanism we are proposing in this docket is modeled after the  
10 mechanism approved by the Commission for our Simple Savings  
11 program.

#### 12 **IV. HOME ENERGY ANALYSIS PROGRAM**

##### 13 ***A. Introduction***

14 **Q. PLEASE SUMMARIZE WESTAR'S PROPOSAL FOR A HOME**  
15 **ENERGY ANALYSIS PROGRAM.**

16 A. The HEA program is an educational service for residential  
17 customers who are interested in learning about ways to increase  
18 the energy efficiency of their homes, improve comfort and lower  
19 energy expenses. The HEA program will provide customers with a  
20 choice of a basic energy assessment or a comprehensive energy  
21 audit, both of which are designed to support customers in  
22 evaluating and improving residential home energy efficiency. The  
23 program can also be utilized by Westar staff as a tool to address  
24 customers' high bill concerns.

25 A single-family homeowner will have two options for an  
26 audit: a Level 1 Home Energy Assessment and a Level 2 Premium  
27 Home Energy Audit.

1                   **Level 1:** Basic on-site energy assessment coupled with the  
2 direct installation of a few savings measures for a customer co-pay  
3 of \$50 (the approximate retail value of assessment is \$350). The  
4 energy assessment will include:

- 5                   • Energy assessment components
  - 6                   ○ Visual walk-through inspection of the home
  - 7                   ○ utilizing a digital assessment tool to capture data
  - 8                   ○ to identify areas where potential inefficiencies may
  - 9                   ○ exist
  - 10                  ○ Inventory customers' electric end-uses (i.e.,
  - 11                  ○ HVAC, water heater, etc.)
  - 12                  ○ Measure attic insulation
  - 13                  ○ Flow of shower head aerators
- 14                  • Direct install option
  - 15                  ○ Installation of free energy efficiency measures up
  - 16                  ○ to a \$50 value
- 17                  • Customized summary report
  - 18                  ○ Will include energy savings tips and
  - 19                  ○ recommendations given to customer
  - 20                  ○ Emailed on site; if customer wants printed copy
  - 21                  ○ will be mailed

22                   **Level 2:** Comprehensive energy analysis for a customer co-  
23 pay of \$198 (the approximate retail value of assessment is \$550).

24 This option will include:

- 25                   • Audit components
  - 26                   ○ Blower door test with infrared



- 1 A. The HEA program is designed to:
- 2 1) Increase energy efficiency awareness within Westar's  
3 residential customer base through program exposure.
- 4 2) Assist customers in reducing energy consumption through  
5 the implementation of direct-installed measures implemented  
6 during the assessment.
- 7 3) Extend an opportunity for Westar customers to optimize  
8 energy spending through participation in the premium audit  
9 program.

10 **Q. HOW WILL WESTAR MANAGE THE PROGRAM?**

11 A. Westar is proposing to use a third-party provider to administer the  
12 program.

13 **Q. WHAT THIRD-PARTY PROVIDER IS WESTAR PROPOSING TO  
14 USE TO IMPLEMENT THE SBL PROGRAM?**

15 A. Westar is asking the Commission to approve the program in a way  
16 that gives Westar the discretion to adjust the third-party provider if  
17 necessary in the future without making an additional filing with the  
18 Commission. However, Westar is currently planning to use the  
19 same vendor selected by Westar to manage and execute the  
20 proposed SBL program, Franklin Energy, to manage and execute  
21 the Home Energy Analysis program. The HEA program will be  
22 branded exclusively as a Westar program, with Franklin conducting  
23 all program operations under the Westar brand.

24 Franklin will utilize existing SBL program resources to also  
25 manage the Home Energy Analysis program. Utilizing the same  
26 vendor will allow resources to be leveraged among both programs.

1       **Q.     WHY DID YOU DECIDE TO HAVE FRANKLIN ENERGY RUN**  
2       **THE HEA PROGRAM?**

3       A.     We will be able to implement the HEA program at lower cost levels  
4       because we will be able to rely on work already being done as part  
5       of the SBL program. As a result, only one incremental headcount  
6       addition from Franklin Energy staff is needed to offer this program  
7       in conjunction with the SBL program.

8             Another benefit to Westar by having Franklin Energy deliver  
9       both the HEA and SBL programs is that Franklin can create  
10       efficiencies by assuming the effort to recruit and manage the  
11       contractors for the HEA program as part of the SBL contractor  
12       recruitment efforts.

13       **Q.     HOW WILL YOU DETERMINE PROGRAM SUCCESS OR**  
14       **FAILURE?**

15       A.     A HEA program scorecard will be developed to measure key  
16       metrics to be achieved by the program. Also, customer satisfaction  
17       surveys will be conducted on an on-going basis to ensure that  
18       program service levels are being met.

19       **Q.     WHAT ARE THE BENEFITS TO RESIDENTIAL CUSTOMERS**  
20       **FROM THE HEA PROGRAM?**

21       A.     All participating customers will gain an increased knowledge of  
22       methods to improve the energy efficiency of their homes. There

1 are also additional benefits which vary based on whether a  
2 customer chooses Level 1 or Level 2.

3 **Level 1: Home Energy Assessment**

4 • Basic on-site energy assessment provided by Franklin-  
5 trained energy advisors for a \$50 co-pay by the customer  
6 (the approximate retail value of assessment is \$350)

7 • Energy efficiency measures directly installed at no charge to  
8 customers by the on-site Franklin energy advisor; average  
9 measure cost per home is estimated at \$50

10 • Customized summary report, with energy savings tips and  
11 recommendations

12 **Level 2: Premium Home Energy Audit**

13 • Premium home energy audit conducted by a Kansas  
14 certified energy auditor for a 40% customer co-pay of \$198  
15 (the approximate retail value of the assessment is \$550)

16 • Customized audit report containing detailed audit results with  
17 recommendations for improvement

18 **Q. WHAT IS THE TYPICAL PROCESS AN ELIGIBLE CUSTOMER**  
19 **WILL FOLLOW WHILE PARTICIPATING IN THE HEA**  
20 **PROGRAM?**

21 A. Exhibit HJ-9 includes a visual presentation of the design of the HEA  
22 program. It illustrates the customer experience at three different  
23 touch points — the pre-visit, the site visit and the post-visit — and  
24 shows the highlights of the Franklin team’s design, including  
25 enrollment, frequent communication with participants and referral  
26 and survey links.

1       **Q.    HOW WILL THE HEA PROGRAM BE MARKETED TO**  
2       **CUSTOMERS?**

3       A.    If the HEA program is approved by the Commission, a  
4       comprehensive marketing strategy will be developed and  
5       implemented in order to drive customer awareness and adoption.  
6       .The HEA program will be marketed to residential customers  
7       through traditional media, advertisements, electronic media, social  
8       media, outreach via community events and other channels.  
9       Customer outreach will be achieved through marketing collateral,  
10      including brochures, direct mail pieces, forms and other marketing  
11      materials. The objective of the HEA program marketing campaign  
12      will be to increase awareness of the importance of improving the  
13      energy efficiency of homes.

14                Additionally through customer segmentation, Franklin will  
15      identify those customers with the highest propensity to participate in  
16      the HEA program and develop appropriate targeted messaging.  
17      Franklin also will leverage innovative marketing tools to generate  
18      inbound traffic and to manage the customer experience.

19                Franklin will also foster relationships with key stakeholders—  
20      partner organizations like the KEO, HEA program participants and  
21      past participants, trade allies, Kansas-based auditors and  
22      contractors; SBL program participants; and Franklin Energy team

1 staff — to serve as trusted references and a source of referrals for  
2 the program.

3 **Q. HOW WILL PROGRAM DATA BE COLLECTED AND**  
4 **MANAGED?**

5 A. The HEA program will maintain a full database that will track all  
6 assessments and audits performed. Data will be collected utilizing  
7 Frankin’s electronic field data collection tool, called Benlink, to  
8 conduct the home energy assessment and track direct install  
9 savings by documenting all products installed. The field data  
10 collection tool provides efficiencies in implementation and reduced  
11 reporting errors.

12 **Q. WHAT IS THE PROPOSED BUDGET FOR THE HEA**  
13 **PROGRAM?**

14 A. Westar is proposing to spend \$177,200 annually to implement the  
15 HEA program. The details of the proposed budget for the HEA  
16 program are summarized in Exhibit HJ-10.

17 ***C. Benefits of the Home Energy Audit Program***

18 **Q. WHAT ENERGY SAVINGS ARE EXPECTED AS A RESULT OF**  
19 **THE HEA PROGRAM?**

20 A. The goal of the HEA program is to educate residential customers  
21 on the potential energy savings within their homes through the  
22 combination of an energy assessment or professional audit,  
23 customized summary or audit report, education and other support.

1 Customers who choose the Level I option and are eligible for all of  
2 the direct install measures have the potential to save over 300 kWh  
3 annually.

4 **Q. WHY DO THESE CHANGES IN ENERGY USAGE OCCUR?**

5 A. The expected direct install kWh savings come primarily from  
6 improvements in lighting efficiency. In most cases, the savings  
7 arise from replacements of older, less efficient lighting technologies  
8 with new technologies. These include compact fluorescent lamps  
9 (CFLs) and solid state lighting (LEDs).

10 The program provides a detailed, prioritized list of additional  
11 energy efficiency opportunities. The audit provides  
12 recommendations for a full range of improvements beyond the  
13 direct install savings, which generally come from lighting. Key  
14 upgrades beyond lighting include upgrades to exterior walls, interior  
15 roofs, and windows, and HVAC upgrades. .

16 Related savings come from reduced air-conditioning needs.  
17 The higher performance lighting produces significantly less heat  
18 and therefore reduces space cooling needs in summer months.  
19 Lighting is typically a significant contributor to interior heat gain.  
20 Fluorescent and LED lighting can reduce interior heat gain from  
21 lighting from 60 – 90% compared to incandescent and halogen  
22 lighting.

1       **Q.    WHAT ARE THE RESULTS OF THE BENEFIT-COST TESTS**  
2               **REQUIRED BY THE COMMISSION WHEN APPLIED TO THIS**  
3               **PROGRAM?**

4       A.    The results of the benefit-cost analyses are summarized in the  
5               following table<sup>3</sup>:

6                               **Table 5. HEA Program Benefit-Cost Results**

Test	Benefit-Cost Ratio
TRC	0.76
UCT	0.94
SCT	0.76
PCT	13.94
RIM	0.21

7                               As indicated from the results above, the HEA program only  
8               passes the Participant benefit-cost test. Mr. Nigro provides more  
9               detail explaining why programs like the HEA program do not  
10              typically pass the other benefit-cost tests in his Direct Testimony.  
11              However, the Energy Efficiency Investment Act, Kansas House Bill  
12              2482, section 1(c)(1)(D) provides:

13                              In making its decision whether or not to  
14                              approve the proposed program, the  
15                              commission shall determine the appropriate  
16                              test for evaluating the cost-effectiveness of the  
17                              demand-side program. Programs targeted to

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<sup>3</sup> A detailed description of the benefit-cost model used in the analysis can be found in Ralph Nigro's Direct Testimony.

1 low-income customers or general education  
2 campaigns do not need to meet a cost-  
3 effectiveness test, so long as the commission  
4 determines that the program or campaign is in  
5 the public interest and is supported by a  
6 reasonable budget in the context of the overall  
7 budget.

8 Because the HEA program is an educational program, Westar  
9 believes the program has strong merit and that pursuant to the  
10 Energy Efficiency Investment Act, the program does not need to  
11 pass any benefit-cost test and should be evaluated to determine  
12 whether it is in the public interest generally and is supported by a  
13 reasonable budget.

14 ***D. Experiences of Other Utilities and Customer Interest in HEA***  
15 ***Programs***

16 **Q. HAVE OTHER UTILITIES OFFERED A HEA PROGRAM**  
17 **OPTION?**

18 A. Yes. Home audit programs similar to Westar's proposed program  
19 have been in operation since 2007 and there are numerous similar  
20 programs in operation today across the country. Exhibit HJ-11  
21 provides an overview of other regional home energy audit and  
22 direct install programs that have undergone evaluation in the past  
23 three years. The summary provides a program description and  
24 evaluation and savings results.

25 **Q. WHAT EVIDENCE IS THERE THAT UTILITY CUSTOMERS ARE**  
26 **INTERESTED IN A HEA PROGRAM?**

1 A. In February 2011, Westar partnered with the Kansas Energy Office  
2 to implement its Efficiency Kansas program. Westar's program was  
3 known as Simple Savings. In seven months, Westar had almost  
4 370 customers participate, with loan amounts totaling  
5 approximately \$2.7 million. When the Efficiency Kansas program  
6 lost its funding, Westar decided to offer its own Home Audit  
7 program. That program ran from October 2011 to June 2012.  
8 During that time, 159 residential customers had a home energy  
9 audit completed. We expect that we will have similar interest in this  
10 program.

11 **Q. WHICH RESIDENTIAL CUSTOMERS DOES WESTAR EXPECT**  
12 **WILL TAKE ADVANTAGE OF THE HEA PROGRAM?**

13 A. Westar serves approximately 604,000 residential customers.  
14 Approximately 1,500 energy assessments and 300 energy audits  
15 will be conducted over the three-year program term, directly  
16 contributing to a sustainable year-round reduction in energy  
17 consumption by program participants.

18 Franklin Energy will be targeting the top five metro areas  
19 with this program. This will reduce costs and make daily  
20 assessment and customer visits more feasible as it will cut down on  
21 travel time. However we will ensure all eligible customers have the  
22 opportunity to participate.

1       **Q.     CAN YOU PROVIDE AN EXAMPLE OF ANOTHER UTILITY’S**  
2       **EXPERIENCE WITH A HEA PROGRAM?**

3       A.     The We Energies Residential Assistance program was so  
4       successful it eventually evolved and rolled into the Focus on  
5       Energy programs, a Wisconsin statewide initiative. These programs  
6       have seen tremendous participation and provide an invaluable  
7       service to both income and non-income qualified participants.  
8       These programs are some of the higher participation rates and  
9       cross the gap between typical assistance programs and non-  
10      income qualified programs.

11                 The Home Energy Jumpstart Program began as a gas only  
12      program of Peoples Gas/North Shore Gas in Illinois. The program  
13      worked directly with community organizations to gain participation.  
14      It proved so popular that Peoples Gas/North Shore Gas was able to  
15      work collaboratively with ComEd to expand the program to include  
16      electric savings measures as well.

17                                 **V.     WATTSaver PROGRAM**

18      **Q.     WHAT IS WESTAR’S PROPOSAL RELATED TO THE**  
19      **WATTSaver PROGRAM IN THIS DOCKET?**

20      A.     Westar is proposing to transition our WattSaver programmable  
21      thermostat program to “sunset” mode. Products and/or services  
22      are often “sunset” when they are no longer sufficiently profitable or  
23      when a company decides to change its focus. The continued  
24      advancements in thermostat and networking technologies have

1 accelerated the progression of WattSaver through the product life-  
2 cycle and therefore Westar is proposing to put the WattSaver  
3 program in “sunset” mode.

4 **Q. PLEASE PROVIDE MORE DETAIL REGARDING WESTAR’S**  
5 **PROPOSAL FOR WATTSAYER IN THIS DOCKET.**

6 A. The success of the WattSaver program has achieved the desired  
7 demand response capacity for this particular program for Westar,  
8 reaching a level of market saturation at which the cost of increasing  
9 participation exceeds the benefit. Westar proposes to discontinue  
10 both new and replacement installations of the current WattSaver  
11 thermostat, which incorporates dated and costly one-way paging  
12 technology in order to execute the demand response function.

13 Even with this modification, the WattSaver program is  
14 expected to continue to provide a significant demand response  
15 capability for several years, based on the forecasted annual  
16 participant attrition rate of 2%. Westar will work to sustain  
17 operating costs associated with the WattSaver program at or below  
18 the current annual expenditure level of \$1.5M, taking advantage of  
19 technology advancements to enhance both efficiencies and  
20 program value as they become available in the market.

21 **Q. IF YOU ARE “SUNSETTING” THE WATTSAYER PROGRAM,**  
22 **DOES THAT MEAN THAT DEMAND SIDE MANAGEMENT**  
23 **PROGRAMS ARE NOT EFFECTIVE?**

1 A. No. WattSaver has been a tremendously successful program with  
 2 high customer participation and customer satisfaction along with  
 3 beneficial demand side management for Westar. Table 6 below  
 4 lists the quarterly customer satisfaction scores for the WattSaver  
 5 program. The program success coupled with rapidly changing  
 6 technology has simply created a situation where it is a prudent  
 7 business decision to sunset the program at this time.

8 **Table 6. WattSaver Program Customer Satisfaction Results**  
 9

Year	1 <sup>st</sup> Quarter	2 <sup>nd</sup> Quarter	3 <sup>rd</sup> Quarter	4 <sup>th</sup> Quarter
2009	—	—	—	93.3
2010	94.7	93.8	94.8	94.5
2011	94.4	90.7	92.7	93.3
2012	95.1	92.9	94.0	95.4
2013	96.0	95.0	95.7	93.5
2014	93.5	97.8	95.4	—

10

11 Westar continues to believe that demand side management  
 12 programs can provide a valuable benefit to its customers and the  
 13 company. We will continue to review advancements in technology  
 14 and look for opportunities to couple leading technology, robust  
 15 customer tools and less expensive solutions for future programs  
 16 that we will bring to the Commission as appropriate.

17 **Q. PLEASE PROVIDE AN OVERVIEW OF WESTAR'S**  
 18 **WATTSAYER PROGRAM.**

19 A. The WattSaver program provided four primary customer  
 20 deliverables, all of which were free to the customer:

21 1) 12-point inspection of the customer's heating/cooling system

- 1           2)     Installation of a digital, programmable thermostat
- 2           3)     Access to an on-line energy management system
- 3           4)     Technical support and maintenance for the thermostat as
- 4                 long as a customer continues participation in the program
- 5                 and/or the program is available.

6                     Westar utilizes a third-party service provider to manage and

7                     execute the WattSaver program and seeks to maintain flexibility in

8                     changing service providers as customer or technology

9                     requirements warrant.

10       **Q.     HOW     MANY     WESTAR     CUSTOMERS     HAVE     TAKEN**

11       **ADVANTAGE OF THE WATTSAYER PROGRAM?**

12       A.     Westar’s WattSaver program began in September 2009 and

13             currently has almost 58,000 thermostats installed through May

14             2014. Of those 58,000 thermostats, around 7,000 were installed in

15             multi-family properties and around 1,600 were installed in small

16             commercial facilities.

17       **Table 7. 2009 – 2014 WattSaver Program Installation Totals**

<b>Year</b>	<b># of Thermostats</b>
2009	2,438
2010	13,720
2011	13,221
2012	20,539
2013	7,362
2014	706
<b>TOTALS</b>	<b>57,986</b>

18                     Even though marketing of the WattSaver program was

19                     stopped in August of 2013, the program is still averaging almost

1 140 installations a month at the end of May 2014. This speaks to  
2 the high visibility of the program and consistently high customer  
3 satisfaction levels that have been shown throughout the program's  
4 history.

5 **Q. WHAT BENEFITS HAS WESTAR RECEIVED FROM THE**  
6 **WATTSAYER PROGRAM?**

7 A. Currently in its fifth year of operation, Westar's WattSaver program  
8 is a proven success. With almost 58,000 thermostats currently  
9 installed and high customer satisfaction scores that have shown  
10 steady improvement since program inception, the WattSaver  
11 program established over 52 MW of peak load capacity while  
12 focusing on providing a valuable product and service to residential  
13 and small commercial customers.

14 **Q. HOW DOES WESTAR USE THE WATTSAYER THERMOSTAT**  
15 **FOR A CURTAILMENT "CYCLING" EVENT?**

16 A. On the hottest weekday afternoons from June through September,  
17 demand on Westar's electrical system is at its highest. At these  
18 times, Westar may cycle participants' central air conditioners or  
19 heat pumps (on and off in 15-minute intervals) in a coordinated  
20 effort to reduce energy demand.

21 These cycling events will normally last about four to six  
22 hours or less. During that time, the thermostat will display  
23 "SAVINGS", and the fan on the heating and cooling system will

1 continue to circulate air throughout the home or business. Cycling  
2 events will never occur on weekends or holidays and will occur no  
3 more than 90 hours per cycling season. Customers may opt out of  
4 an announced thermostat cycling event once a month and remain  
5 in the program.

6 Since program inception, Westar has cycled the thermostats  
7 of participating customers 14 times for around 48 hours:

8 **Table 8. 2010 – 2013 WattSaver Program Curtailment Totals**  
9

Year	# of Events	Hours
2010	5	17.5
2011	6	20.5
2012	2	7.5
2013	1	2
<b>TOTALS</b>	<b>14</b>	<b>47.5</b>

10 .

11 **Q. WHO OWNS THE WATTSAYER THERMOSTAT?**

12 A. Westar retains ownership of the thermostat for the first three years  
13 in which a customer is in the program. The ownership of the  
14 thermostat is transferred to each participating customer after  
15 fulfillment of three years in the program, with the customer's  
16 program participation remaining intact.

17 If a customer terminates program participation prior to the  
18 three year period, ownership of the thermostat is automatically  
19 transferred to Westar. Customers may terminate their participation  
20 in the program at any time. Westar will remove the WattSaver  
21 thermostat and reinstall the customer's previous thermostat at no

1 cost to the customer. Since program inception, around 2,400  
2 customers have asked to be removed from the program.

3 **Q. HOW WAS IT DETERMINED THAT THE WATTSAYER**  
4 **PROGRAM HAD REACHED MARKET SATURATION AND TO**  
5 **STOP MARKETING EFFORTS?**

6 A. In mid-2013, a decision was made to stop marketing efforts based  
7 on an internal business review and trends that showed the cost per  
8 customer acquisition rising. Previous marketing channels had  
9 slowed in producing leads and ramping up other marketing  
10 channels would be expensive.

11 While program costs per kW reduction remained under the  
12 avoided cost targets for the program as a whole, some components  
13 such as multi-family installations were already above target and  
14 single-family costs were increasing due to market saturation. We  
15 estimate to have reached approximately 20% of our eligible  
16 customers, which exceeds program expectations.

17 We also were witnessing rapid changes in technology that  
18 go well beyond our WattSaver program technology. These included  
19 applications for mobile devices that made the customer interface  
20 with their thermostat more convenient and other home connectivity  
21 options.

22 **Q. WHY DID WESTAR CEASE MULTI-FAMILY INSTALLATIONS IN**  
23 **APRIL OF 2014?**

1 A. Westar ceased multi-family installations in April of 2014 because  
2 cost/benefit numbers indicated that the cost per kW was greater  
3 than the avoided kW cost. This is driven primarily by a 0.43 kW  
4 demand reduction per installation in multi-family versus a 0.96 kW  
5 demand reduction per installation in single-family.

6 **Q. WHAT HAS BEEN THE BUDGETARY IMPACT OF STOPPING**  
7 **MARKETING EFFORTS AND MULTI-FAMILY INSTALLATIONS?**

8 A. The impact of the changes described above has dramatically  
9 reduced the annual WattSaver program operating costs. These  
10 costs have been recovered through the Energy Efficiency Rider.

11 **Table 9. 2009 – 2014 WattSaver Program Total Costs**  
12

<b>Year</b>	<b>Cost</b>
2009	942,660
2010	5,896,830
2011	5,047,938
2012	8,008,984
2013	3,070,775
2014	547,055
<b>TOTALS</b>	<b>\$23,514,242</b>

13

14 As I indicated above, we are proposing to direct the amounts  
15 previously spent on the WattSaver program towards the new  
16 energy efficiency programs we are proposing in this Application.  
17 This will allow customers to benefit from implementation of the new  
18 programs without a significant impact on rates.

- 1       **Q.    WHAT HAPPENS IF A WATTSAYER CUSTOMER HAS A**  
2           **QUESTION OR NEEDS SERVICE SHOULD WESTAR BE**  
3           **ALLOWED TO SUNSET THIS PROGRAM?**
- 4       A.    Westar will continue to maintain current service levels in regards to  
5            answering the toll-free WattSaver hotline and providing service in  
6            the field.  However, if the thermostat is determined to be faulty, the  
7            WattSaver thermostat will be replaced with a non-WattSaver  
8            program thermostat at no charge to the participating WattSaver  
9            customer.
- 10      **Q.    THANK YOU.**

## **Westar Energy's Small Business Lighting (SBL) Program**

### **1. Program Description**

#### **a. Background**

Westar recognizes the critical role that small businesses play in the state of Kansas, and more specifically, within the Westar Energy service area. The Small Business Profile for Kansas (published by the SBA in 2013) reports that small businesses have a significant impact on the Kansas economy, representing 96.6% of all employers and employing 594,623 workers in 2010, with most of the employment coming from firms with 20-499 employees.

The proposed Westar Small Business Lighting (SBL) program will provide customers a range of options, from basic to comprehensive energy saving measures, through a program designed to ensure high levels of customer satisfaction. In addition, the SBL program will be a mechanism in which Westar will offer energy savings advice, education, and other support that will increase the electric energy efficiency of small business customers in Westar's service territory.

A separate but complimentary Westar initiative is the launching of a new energy dashboard specifically designed for small and medium business customers. This web-based dashboard will provide business customers with energy usage profile information and industry benchmarking data, as well as energy savings tips and insights, based on customized customer profile data. The energy dashboard for business will serve as an important channel for communications of the SBL program and demonstrates Westar's commitment to driving energy savings while enhancing the customer experience across the small business customer segment. The targeted timeframe for dashboard availability is August, 2014.

#### **b. Overview**

Westar proposes to offer Small General Service (SGS) customers the opportunity to voluntarily participate in a Small Business Lighting (SBL) program. The objective of the program is to increase the electric energy efficiency of SGS customers in Westar's service territory through increased efficiency awareness as well as the installation of efficient lighting measures. SGS customers are those non-residential accounts with demand billing less than 200 kW per month.

Traditional barriers to small business participation in efficiency programs include a lack of knowledge, available capital, and time. The Westar SBL program is designed with these factors in mind, incorporating efficiency educational messaging, an affordable financing option and a fast and efficient on-site assessment that enables small business owners to participate in the program at their convenience.

The SBL program provides four primary customer deliverables:

- 1) An on-site ASHRAE Level 1 energy assessment provided at no cost to the customer by professionally trained energy advisors.
- 2) An energy assessment report, provided electronically to the customer at the time of the assessment.
- 3) Energy-efficiency measures installed immediately upon acceptance by the customer at no charge.
- 4) Additional subsidized efficiency measures installed by a Kansas-based Installation Contractor (IC).

Westar Small Business Program Offer	
Measure Type	Offer
No Charge Measures	Install up to \$500 value of measures
Installation Contractor-Installed Measures	60-75% of measure cost to incentives Remainder to customer co-payment

## 2. Program Goal

The goal of the Small Business Lighting program is to drive energy savings within the small businesses through a combination of direct installation of energy savings measures, energy savings advice, education and other support. This program will include installation of a variety of energy saving measures by trained energy advisors and also identify additional lighting measures available for installation through a network of local trained and skilled Installation Contractors. This program will engage suppliers and installing contractors to enhance the local depth, scope and economic impact of the program.

- a. Expected energy savings – time horizon

### Volume Projections

Metric	Program Year 1	Program Year 2	Program Year 3	Program Year 4	Program Year 5	Total
Facility Assessments	890	1,100	1,320	0	0	3,310
Number of Projects installed by ICs	356	440	528	0	0	1,324
Energy Savings (kWh)	5,751,895	7,111,731	8,532,904	0	0	21,396,530
Total Cost per kWh	\$0.313	\$0.271	\$0.264	\$0.00	\$0.00	\$0.279

## 3. Program Framework/Strategy

Westar Energy's Small Business Lighting program is part of a comprehensive offering of energy efficiency programs for all customer classes, including the previously approved WattSaver and Building Operator Certification (BOC) programs, and the anticipated Targeted Energy Efficiency and Home Energy Analysis programs.

a. Relationship to other programs

This program extends Westar Energy efficiency offers to the small business market segment as a natural progression from the WattSaver programmable thermostat program, which is primarily for residential customers.

b. Program Design

The key design elements of the SBL program are:

- A customer engagement model that delivers an easy participation threshold
- Customer interaction opportunities to deliver a high level of utility customer satisfaction, brand recognition, and goodwill
- A free in-person energy assessment provided by trained energy advisors representing Westar Energy
- An informative assessment report, with upgrade recommendations delivered directly to the customer and opportunities to choose energy efficiency options from direct installation to full project completion by qualified contractors
- Up to \$500 of energy efficiency measures directly installed free of charge by the energy advisor. These products would be capped by a monetary amount set by the program, not by not a quantity of lamps or products. This provision gives the customer the flexibility to choose the right product or products to fit their business, with the support and guidance of our energy advisors
- Additional measures delivered by qualified Installation Contractors with a 40% customer co-pay of negotiated program-priced measures. These selected Installation Contractors will serve the market and purchase product locally. The customer will always have visibility of the project's cost and Westar's contribution to help buy down the cost of the project through incentives paid directly to the contractor. Energy advisors would then support the customer through the project completion process
- A deferred payment option (0% financing)

c. Marketing Strategy

The Small Business Lighting program will be marketed to small businesses through traditional media, advertisements, events, direct mail, electronic media, social media, outreach via business organizations and community events and other channels. The objectives of the SBL program marketing campaign will be to increase awareness and drive leads. Westar will utilize a new business energy web-based dashboard to promote the SBL program and drive adoption.

d. Program Delivery (Third Party)

Westar is proposing to use a third-party provider to administer the program.

Westar is asking the Commission to approve the program in a way that gives Westar the discretion to adjust the third-party provider if necessary in the future without making an additional filing with the Commission. However, Westar is currently planning to use Franklin Energy to manage and execute the Small Business Lighting program.

The SBL program will be branded exclusively as a Westar Energy program, with Franklin conducting all program operations under the Westar brand.

Franklin Energy was selected through Westar's RFP process, which included bids from six competing service providers. Franklin's selection was based on a successful and demonstrable track record in achieving both market transformation and penetration for energy efficiency programs for small business customers in conjunction with other utilities at reasonable costs. Franklin differentiated itself from competitors through the design and delivery of a program that met the specific requirements of both Westar and our customers.

Franklin Energy Services, LLC, is one of the largest implementers of energy efficiency programs in the United States. Headquartered in Wisconsin, Franklin Energy has approximately 350 employees located in 25 offices in 13 states with our strongest presence in the Midwest.

Franklin Energy Services is a Limited Liability Company. It is a wholly owned subsidiary of FES Holdings, LLC, a private holding company owned by Cortec Group (private equity firm) and minority investors (company management).

Franklin has 20 years of experience delivering energy efficiency programs to small business, commercial, industrial, residential, multifamily, low-income and agricultural customers. Franklin currently enables 37 utility clients to deliver 85 energy efficiency programs to customers in 18 states.

Franklin has proven methods for managing programs, conducting marketing and outreach, supporting customers in project implementation, verifying installations and tracking and reporting program data.

Franklin Energy's sole business model is to provide energy efficiency program services as an unbiased third-party to utilities. Franklin has a proven record of performance in the following core service areas:

- Program design
- QA/QC processes and evaluation interface
- Retrofit and direct install programs
- Electric and gas efficiency programs
- Marketing and outreach services

- Overall program implementation
- Customer education and awareness
- Technical review of energy efficiency projects
- Training and program support
- Installation Contractor outreach and coordination
- Utility customer satisfaction
- Data collection and analytics

Franklin has a strong record of economic development and job creation and relies on local contractors as an integral part of program execution. Franklin also demonstrated a commitment to hiring local Kansas staff in order to execute the Westar SBL program. Franklin Energy has received the Metropolitan Milwaukee Association of Commerce “Future 50” award for three consecutive years and has been named a top workplace by the Milwaukee Journal Sentinel and The Milwaukee Business Journal.

e. Partners

The implementation of customer co-pay lighting measures will be executed by a network of qualifying Kansas-based Installation Contractors (ICs) created in support of the SBL program.

f. Roles & Responsibilities

- Westar Program Manager: Responsible for the management and oversight of program operations
- SBL Program Manager: Manage daily operations and execution of SBL program
- Energy Advisors: Serve as the customer facing individual responsible for advising and assisting customers through the program. Energy advisors are complete the on-site assessment, make recommendations, discuss technical issues with customers/allies, enter data into Bensight and follow up customers to ensure retrofit projects are completed. Energy advisors typically have two or more years of experience in energy efficiency program delivery, the electric or natural gas utility industry, facilities management, HVAC design or sales, commercial and industrial lighting or conservation and energy management. They are proficient in building science and in safety related issues in various building types. Energy advisors frequently have additional position-specific qualifications, such as Building Performance Institute (BPI), Certified Energy Manager (CEM) or Certified Energy Auditor (CEA) certifications or professional licenses
- Trade Ally Liaison: Identify, recruit, train and manage Kansas-based Installation Contractors for the SBL program
- SBL Project Coordinator: Work with program staff to ensure organization of files, paperwork and data entry. The Program Manager works with Coordinators to compile monthly reports, invoices and other program management information. They are able to assist customers

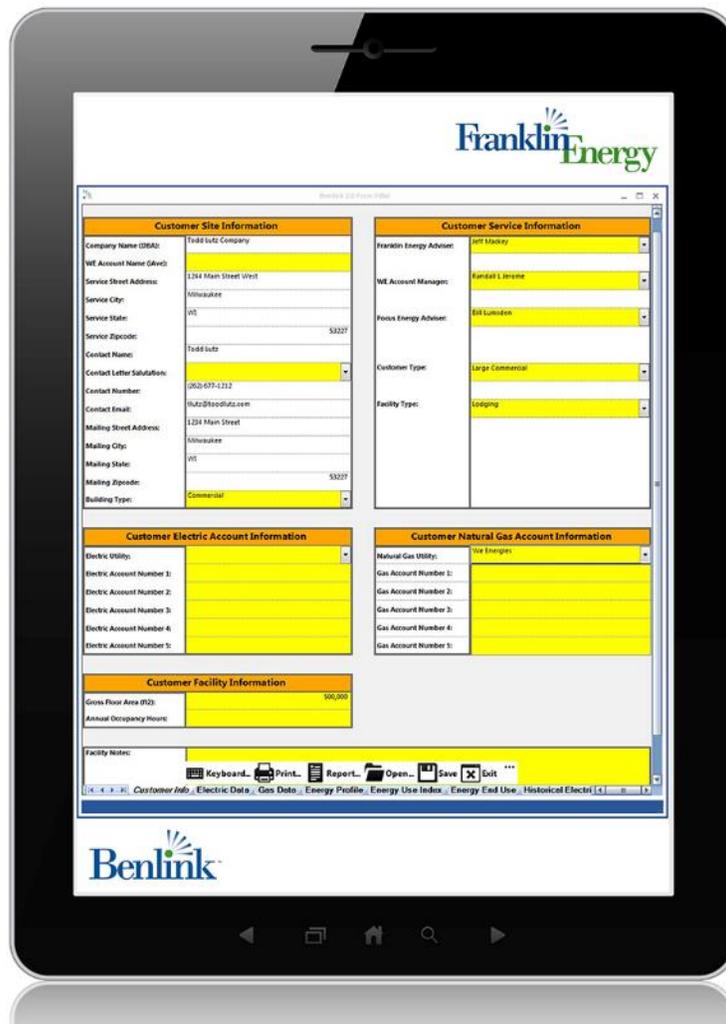
with understanding how to participate in the program and coordinate paperwork/forms

- g. Digital Data Collection and Management  
Franklin Energy developed Benlink and Bensight to provide a comprehensive approach to data collection and management. They are innovative in their outward simplicity and their adaptability to the needs of different programs and clients. Together, they offer Westar a flexible, efficient, convenient and secure solution for managing program data.

**Benlink**

Benlink operates on tablet devices and can be used off-line for remote locations. Data entry options include: touch gestures, keyboard entry, handwriting recognition, voice recognition and barcoding.

Benlink's data collection forms can be used for ASHRAE Level 1 assessments, pre- and post-inspection and QA/QC. They can capture data related to account profiles, space/room, asset inventory, direct installation, lighting, heating and cooling and motors and drives. Checklists and surveys also can be incorporated. At the start of an assessment, account, contact and project data from Bensight is automatically populated into Benlink.



### Bensight

Bensight is a proprietary data tracking system, provides SBL staff and Westar management with real-time access and visibility into energy efficiency projects and applications at every stage. This allows for close monitoring of the activity pipeline to ensure appropriate steps are being taken to achieve set goals on time and within budget. Data is shown on dashboards that quickly summarize a variety of metrics in real time.



#### 4. Program Budget (3 years)

##### Estimated Budget

Cost Categories	Program Year 1	Program Year 2	Program Year 3	Program Year 4	Program Year 5	Total
Start-up Costs	\$121,112	\$0.00	\$0.00	\$0.00	\$0.00	\$121,112
Total Program Management Costs	\$701,590	\$781,236	\$877,791	\$0.00	\$0.00	\$2,360,617
Total Customer Incentive Costs	\$924,910	\$1,143,764	\$1,372,209	\$0.00	\$0.00	\$3,440,883
<b>Total SBL Program Costs</b>	<b>\$1,747,612</b>	<b>\$1,925,000</b>	<b>\$2,250,000</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$5,922,612</b>

##### a. Start-up costs

Six cost components have been identified for the start-up/transition of the SBL program.

##### Estimated Start-up Costs

Start-up Costs	Program Year 1
Kick-off and Transition meetings	\$6,610.50
Development of execution plans	\$22,869.50
Installation Contractors advisory meetings & early recruitment	\$32,324.00
Engineering work on measures library	\$9,761.60
Development of standardized pricing model	\$12,781.60
Customization of Tracking System & Data Collection tool	\$36,764.80
<b>Total Start-up Costs</b>	<b>\$121,112.00</b>

##### b. Administrative Cost

The table below shows the program management cost by category by year. The core assumption of the program management costs is the staffing plan. Franklin Energy will establish a Kansas-based office and

employ five (5) staff members locally inside Westar's service territory in order to deliver on the goals of the program. Support of the program will include marketing specialist, data specialist and executive management.

### Program Management Costs

Program Management Company	Program Year 1	Program Year 2	Program Year 3	Program Year 4	Program Year 5
Program Management	\$124,752	\$134,344	\$144,456	\$0.00	\$0.00
Customer Support & Response	\$20,880	\$28,855	\$36,549	\$0.00	\$0.00
Customer Sales & Marketing	\$111,806	\$120,592	\$130,106	\$0.00	\$0.00
Customer Energy Efficiency Surveys	\$191,627	\$213,885	\$256,120	\$0.00	\$0.00
Installation Contractor Management	\$101,054	\$113,922	\$122,787	\$0.00	\$0.00
Financing	\$11,476	\$13,877	\$15,876	\$0.00	\$0.00
Education & Training	\$37,012	\$40,887	\$43,201	\$0.00	\$0.00
Reporting	\$57,608	\$62,456	\$70,885	\$0.00	\$0.00
Quality Assurance	\$45,373	\$52,419	\$57,810	\$0.00	\$0.00
<b>Total Program Management Costs</b>	<b>\$701,590</b>	<b>\$781,236</b>	<b>\$877,791</b>	<b>\$0.00</b>	<b>\$0.00</b>

#### c. Incentives

The incentive to customers will be:

- On-site energy assessment provided by trained energy advisors at no charge to the customer.
- Informative assessment report, with upgrade recommendations delivered directly to the customer and opportunities to choose energy efficiency options from direct installation to full project completion by qualified Installation Contractors.
- Energy efficiency measures directly installed at no charge to customers by on-site energy advisors, capped at a \$500 value.
- Additional measures delivered by qualified Installation Contractors with a 40% customer co-pay of negotiated program priced measures. This includes a deferred payment option with 0% financing.

#### d. Marketing

Building program awareness will be a significant challenge as small business customers tend to be classified as "hard to reach". Through proven industry experience, Franklin Energy has found that the most effective way to capture the attention of small business customers is to layer multiple tactics in a campaign. In this way, the tactics support each other and have a greater impact compared to a myopic, singular approach. The illustration below provides an example of a Marketing and Community Outreach Process Roadmap, utilizing proven tactics employed by Franklin Energy in order to drive program awareness and participation.

Once the SBL program receives the appropriate regulatory approval, a comprehensive marketing strategy will be developed and implemented in order to drive customer awareness and adoption. Customer outreach will be achieved through marketing collateral, including brochures, direct mail pieces, forms and other marketing materials. These will be developed to drive SBL program adoption within the small business community. A marketing specialist will develop and implement the marketing plan and the Program Manager and energy advisors will conduct activities and events aimed at generating customer participation.



e. Evaluation

EM&V will be conducted to monitor program results compared to objectives (see Q7).

**5. Program Beneficiaries**

- a. Expected number of participants by customer class of subclass

Westar Energy serves approximately 85,000 Small General Service (SGS) customers. Approximately 3,310 energy assessments will be conducted for SGS customers over the three-year program term, directly contributing to a sustainable year-round reduction in energy consumption by program participants.

Participating customers should directly benefit from reduced energy consumption, enabling small businesses to apply energy cost savings to other critical business activities, contributing to the overall health of the Kansas economy.

**Beneficiaries**

Target/Goal	Program Year 1	Program Year 2	Program Year 3	Program Year 4	Program Year 5	Total
Facility Assessments	890	1,100	1,320	0	0	3,310

- b. Other beneficiaries:

In addition, the SBL program marketing communications will increase energy efficiency awareness throughout the SGS customer segment as a result of the extensive educational messaging to be included as part of program outreach. This marketing effort, combined with Westar’s business energy dashboard, will help to stimulate efficiency gains across all non-residential Westar customers.

**6. Program Benefit-Cost Analysis**

All four benefit-cost tests and supporting documentation – see SBL Overview Exhibit 1.

**90% NTG**

TEST SUMMARY	B/C Ratio	NPV	Payback (yrs)
PCT	7.59	\$13,887,481	7.26
RIM	0.31	-\$13,167,924	9.61
TRC	1.14	\$719,557	6.68
UCT	1.11	\$276,646	7.26

**7. Program Evaluation, Measurement and Verification Plan**

The proposed SBL program reporting metrics are included in the following Scorecard:

2015 Scorecard: Westar Small Business Lighting Program							
Performance Metrics			JAN	FEB	MAR	APR	MAY
<b>Safe, Excellent Operations</b>							
1	Recordable Safety Incidents	Plan	0	0	0	0	0
		Actual					
2	Recordable Installation Contractor safety incidents	Plan	0	0	0	0	0
		Actual					
<b>Customer Value</b>							
3	Achieve Average Number of Customer Agreements per Month	Plan	TBD	TBD	TBD	TBD	TBD
		Actual					
4	Achieve Average Number of Customer Visits per Week per Energy Advisor	Plan	20	20	20	20	20
		Actual					
5	Achieve Average Number of Installations per Month	Plan	TBD	TBD	TBD	TBD	TBD
		Actual					
6	Mean Time to Process (Customer Agreement to IC Project Implementation)	Plan	4 months				
		Actual					
7	Ensure 90% of Projects are paid within 30 days of receiving complete Final Applications	Plan	90.0%	90.0%	90.0%	90.0%	90.0%
		Actual					
8	Ensure 90% of Direct Install Projects are scheduled within 30 days of initial contact	Plan	90.0%	90.0%	90.0%	90.0%	90.0%
		Actual					
9	Ensure 90% projects installed by IC's achieve 100% verification of post inspected projects	Plan	90.0%	90.0%	90.0%	90.0%	90.0%
		Actual					
10	Mean Time of IC's achieving on-site contact with customer within 5 business days of program referral	Plan	5 days				
		Actual					
11	Customer Satisfaction average survey results, scale of 1 to 5	Plan	5.0	5.0	5.0	5.0	5.0
		Actual					
12	Cumulative Customer Satisfaction average survey results, scale of 1 to 5	Plan	5.0	5.0	5.0	5.0	5.0
		Actual					
<b>Energy Savings Performance</b>							
13	Achieve Monthly kWh Savings Performance	Plan	TBD	TBD	TBD	TBD	TBD
		Actual					
14	Achieve Cumulative kWh Savings Performance	Plan	TBD	TBD	TBD	TBD	TBD
		Actual					
<b>kWh Cost Effectiveness</b>							
15	Achieve Monthly kWh Cost Effectiveness Target	Plan	TBD	TBD	TBD	TBD	TBD
		Actual					
16	Achieve Cumulative kWh Cost Effectiveness Target	Plan	TBD	TBD	TBD	TBD	TBD
		Actual					
<b>Consistent Financial Performance</b>							
17	Achieve Total Program Electric Spend	Plan	TBD	TBD	TBD	TBD	TBD
		Actual	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Measurement and Verification</b>							
18	Complete PMC QA/QC inspections for +10% of all IC Direct Install Projects.	Plan	10.0%	10.0%	10.0%	10.0%	10.0%
		Actual					
19	Complete PMC QA/QC inspections for +10% of Incentivized Projects	Plan	10.0%	10.0%	10.0%	10.0%	10.0%
		Actual					
20	Complete PMC QA/QC inspections for 100% of Incentivized projects over \$25K.	Plan	100.0%	100.0%	100.0%	100.0%	100.0%
		Actual					
21	Complete PMC QA/QC inspections of +10% for all IC with +20% of projects	Plan	10.0%	10.0%	10.0%	10.0%	10.0%
		Actual					

NOV	DEC	YTD Actual	Year End Forecast
0	0	0	0
		-	
0	0	0	0
		-	
TBD	TBD	-	TBD
		-	
20	20	20	20
		-	
TBD	TBD	-	TBD
		-	
4 months	4 months	4 months	4 months
		-	
90.0%	90.0%	90%	90%
		-	
90.0%	90.0%	90%	90%
		-	
90.0%	90.0%	90.0%	90.0%
		-	
5 days	5 days	5 days	5 days
		-	
5.0	5.0	5.0	5.0
		-	
5.0	5.0	90%	90%
		-	
TBD	TBD	-	TBD
		-	
TBD	TBD	-	TBD
		-	
TBD	TBD	-	TBD
		-	
TBD	TBD	-	TBD
		-	
TBD	TBD	-	TBD
		-	
10.0%	10.0%	10%	10%
		-	
10.0%	10.0%	10%	10%
		-	
100.0%	100.0%	100%	100%
		-	
10.0%	10.0%	10%	10%
		-	

### 8. Program Specific Tariff Schedule

Upon Commission approval of the SBL program, Westar will make a compliance filing with the tariff schedule for the program.

## **Westar Energy's Home Energy Analysis (HEA) Program**

### **1. Program Description**

#### **a. Background**

Westar Energy is proposing a Home Energy Analysis (HEA) program designed to serve as an educational tool for residential customers who are interested in learning about ways to increase the energy efficiency of their homes, improve comfort and lower energy expenses.

The proposed HEA program will provide customers with two choices:

- Level 1: Home Energy Assessment
- Level 2: Premium Home Energy Audit

After either the assessment or audit, customers will be provided with a range of options, from basic to comprehensive energy savings measures, via a customized summary or audit report.

The Home Energy Analysis program is specifically tailored for single-family residences. The program is designed to support customers in evaluating and improving residential home energy efficiency. The program can also be utilized by Westar Energy staff as a tool to address customers' high bill concerns.

#### **b. Overview**

Westar proposes to offer residential customers who own a single-family home the opportunity to voluntarily participate in a Home Energy Analysis (HEA) program.

The key objectives of the HEA program are to:

- 1) Increase energy efficiency awareness within Westar Energy's residential customer base through program exposure.
- 2) Assist customers in reducing energy consumption through the implementation of direct-installed measures implemented during the assessment.
- 3) Extend an opportunity for Westar customers to optimize energy spending through participation in the premium audit program.

These objectives will be achieved via a Level 1 or Level 2 Home Energy Analysis program option.

## Level 1: Home Energy Assessment

This option includes a basic on-site energy assessment coupled with the direct installation of a few savings measures for a customer co-pay of \$50. The assessment will be conducted by Franklin Energy staff leveraging Small Business Lighting (SBL) program resources as much as possible.

<b># of assessments (annual)</b>	500
<b>Cost per assessment</b>	\$225
<b>Customer co-pay</b>	\$50

- Energy assessment
  - Visual walk-through inspection of the home utilizing a digital assessment tool to capture data to identify areas where potential inefficiencies may exist
  - Inventory customers' electric end-uses (i.e., HVAC, water heater, etc.)
  - Measure attic insulation
  - Flow of shower head aerators
- Direct install option
  - Installation of free energy efficiency measures up to a \$50 value
- Customized summary report
  - Will include energy savings tips and recommendations given to customer
  - Emailed on site; if customer wants printed copy will be mailed

## Level 2: Premium Home Energy Audit

This option is for residential customers seeking a more comprehensive energy analysis. The audit will be conducted by a Kansas certified energy auditor who will deliver detailed insights into potential energy savings opportunities. Program auditors will be managed by Franklin Energy staff to ensure consistency and a superior level of customer service.

<b># of audits (annual)</b>	100
<b>Cost per audit</b>	\$495
<b>Customer co-pay (40%)</b>	\$198
<b>Westar co-pay (60%)</b>	\$297

- Audit components
  - Blower door test with infrared
  - CAZ test: Combustion test on water heater and 80% furnace
  - Air balance checks
  - Inspect wall and attic insulation
  - Check rim joist framing
- Customized audit report
  - Containing detailed audit results with recommendations for improvement

- 3 delivery options, based on customer preference
  - On-site presentation, email or postal service

## **2. Program Goal**

The goal of the Home Energy Analysis program is to educate residential customers on the potential energy savings within their homes through the combination of an energy assessment or professional audit, customized summary or audit report, education and other support. The HEA program will engage local auditors and potentially Installation Contractors (IC) to enhance the local depth, scope and economic impact of the program.

### Level 1: Home Energy Assessment: Energy and Water Savings Estimate

Measure Name	# Per Home	Quantity 2015	Quantity 2016	Quantity 2017	kWh Energy Savings	kWh Energy Savings	kWh Energy Savings	Water Savings gal/yr	Water Savings gal/yr	Water Savings gal/yr
CFL bulb	4.0	2,000	2,000	2,000	61,800	61,800	61,800	0	0	0
CFL Globe	2.0	1,000	1,000	1,000	26,970	26,970	26,970	0	0	0
LED bulb	1.0	500	500	500	17,700	17,700	17,700	0	0	0
LED Night Light	1.0	500	500	500	11,000	11,000	11,000	0	0	0
Showerhead (1.5 GPM)	0.1	50	50	50	16,400	16,400	16,400	140,150	140,150	140,150
Kitchen Aerator (1.5 GPM)	0.1	50	50	50	6,535	6,535	6,535	67,450	67,450	67,450
Bathroom Aerator (1 GPM)	0.1	50	50	50	810	810	810	10,200	10,200	10,200
Site Visit / Assessment	1.0	500	500	500	0	0	0	0	0	0
					<b>141,215</b>	<b>141,215</b>	<b>141,215</b>	<b>217,800</b>	<b>217,800</b>	<b>217,800</b>

Table 1: Measure Savings Table

## Level 2: Premium Home Energy Audit Savings Estimate

It is difficult to estimate accurately the energy savings received from customers participating in the Premium Home Energy Audit. Because of the expansive energy and water saving opportunities within a home and coupled with different construction types, home sizes and year built, the estimates could vary wildly.

In preparation for this program we utilized some calculated savings from other Home Performance Audit programs that share similar objectives within a similar climate setting. The information was gathered from an evaluation report of the Ameren Home Energy Performance program in 2012. Please consider that these deemed savings will generally be appropriate for most measures on average but are not intended to predict specific savings of any measure or package of improvements for a specific house.

As the program matures and more data is collected through the approved contractors the program can hone savings potential and estimate for future consideration.

Measure Name	kWh Savings/yr	Source
HVAC Tune-up	186.3	IL TRM Belleville weather
Air Sealing	55	Ameren Evaluation, gas heat
DHW Turn-down	86.4	IL TRM, electric DWH
Attic Insulation	229.5	Ameren Evaluation, gas heat
Wall Insulation	415	Ameren Evaluation, average, gas heat

Table 2: Savings per Home by Measure Group

Measure Group	Homes	Gross kWh	Realized	Gross kWh/Home	Realized kWh/Home
DHW measures - Electric DWH	425	69,965	122,395	165	288
Shell Measures - AC Elec Heat	40	146,496	111,111	3,662	2,778
Shell Measures - AC Gas Heat	740		137,915	-	186
Thermostats - AC Gas Heat	293		56,947	-	194
CFLs	1771	585,261	585,261	330	330

Table 3: Ameren Home Energy Performance Evaluation 2012; Water saving data was not available

### 3. Program Framework/Strategy

Westar Energy's Home Energy Analysis program is part of a comprehensive offering of energy efficiency programs for all customer classes, including the previously approved WattSaver and Building Operator Certification (BOC) programs and the anticipated Targeted Energy Efficiency and Small Business Lighting (SBL) programs.

a. Relationship to other programs

The Home Energy Analysis program will complement the proposed Targeted Energy Efficiency program by extending the opportunity to all single-family residential customers the opportunity to recognize measures to take to improve the energy efficiency of their homes.

b. Marketing Strategy

The Home Energy Analysis program will be marketed to residential customers through traditional media, advertisements, electronic media, social media, outreach via community events and other channels. Customer outreach will be achieved through marketing collateral, including brochures, direct mail pieces, forms and other marketing materials. The objective of the HEA program marketing campaign will be to increase awareness of the importance of improving the energy efficiency of homes.

c. Partners

Westar is proposing to use a third-party provider to administer the program. Westar is asking the Commission to approve the program in a way that gives Westar the discretion to adjust the third-party provider if necessary in the future without making an additional filing with the Commission. However, Westar is currently planning to use the same vendor selected by Westar to manage and execute the proposed SBL program, Franklin Energy, to manage and execute the Home Energy Analysis program. The HEA program will be branded exclusively as a Westar program, with Franklin conducting all program operations under the Westar brand,

Utilizing the same vendor will allow resources to be leveraged among both programs. Incremental expenses have been identified and included in the Program Budget section below.

d. Program Delivery (Third Party)

Level 1 assessments will be conducted by Franklin staff and Level 2 audits will be executed by a network of qualifying Kansas-based auditors. The program will also extend to local Installation Contractors if the customer decides to implement recommended measures.



## e. Digital Data Collection and Management

The third-party provider that Westar is proposing to use, Franklin Energy, utilizes a tool called Benlink to provide a comprehensive approach to data collection and management. Benlink is innovative in its outward simplicity and adaptability to the needs of different programs and clients. It offers Westar a flexible, efficient, convenient and secure solution for managing HEA program data.

## 4. Program Budget (5 years)

Home Energy Audit Program Budget	Year 1	Year 2	Year 3	Year 4	Year 5	Totals
Level 1: Home Energy Assessments						
# of Assessments	500	500	500	0	0	1,500
Assessment Cost (\$225)	\$ 112,500	\$ 112,500	\$ 112,500	\$ -	\$ -	\$ 337,500
Program Cost	\$ 30,000	\$ 30,000	\$ 30,000	\$ -	\$ -	\$ 90,000
Direct Install Measures (\$50)	\$ 25,000	\$ 25,000	\$ 25,000	\$ -	\$ -	\$ 75,000
Customer Co-pay (\$50)	\$ (25,000)	\$ (25,000)	\$ (25,000)	\$ -	\$ -	\$ (75,000)
<b>Total Assessment Program Cost</b>	<b>\$ 142,500</b>	<b>\$ 142,500</b>	<b>\$ 142,500</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 427,500</b>
Level 2: Home Energy Audits						
# of Audits	100	100	100	0	0	300
Audit Cost (\$495)	\$ 49,500	\$ 49,500	\$ 49,500	\$ -	\$ -	\$ 148,500
Customer Co-pay (\$198)	\$ (19,800)	\$ (19,800)	\$ (19,800)	\$ -	\$ -	\$ (59,400)
<b>Total Audit Program Cost</b>	<b>\$ 29,700</b>	<b>\$ 29,700</b>	<b>\$ 29,700</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 89,100</b>
Customer Satisfaction Survey	\$ 5,000	\$ 5,000	\$ 5,000	\$ -	\$ -	\$ 15,000
<b>Total Program Cost</b>	<b>\$ 177,200</b>	<b>\$ 177,200</b>	<b>\$ 177,200</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 531,600</b>

## a. Administrative Cost

The HEA program will be implemented at lower cost levels as a result of the opportunity to leverage certain activities that are being executed as part of the Small Business Lighting program. As a result, only one incremental headcount addition for Franklin staff is needed to offer this program in conjunction with the SBL program. Other supportive costs include marketing, information management and administrative managerial costs.

Another benefit to Westar by having Franklin deliver both the HEA and Small Business Lighting programs is that Franklin can create efficiencies by assuming the effort to recruit and manage the market provider trade partners for the audits as part of the SBL trade ally and recruitment efforts.

## b. Incentives

The incentive to customers will be:

### Level 1: Home Energy Assessment

- Basic on-site energy assessment provided by trained energy advisors for a \$50 co-pay by the customer
- Energy efficiency measures directly installed at no charge to customers by the on-site energy advisor; average measure cost per home is estimated at \$50
- Customized summary report, with energy savings tips and recommendations

### Level 2: Premium Home Energy Audit

- Premium home energy audit conducted by a Kansas certified energy auditor for a 40% customer co-pay (\$198)
- Customized audit report containing detailed audit results with recommendations for improvement

## c. Targeted Outreach and Marketing

Once the HEA program receives the appropriate regulatory approval, a comprehensive marketing strategy will be developed and implemented in order to drive customer awareness and adoption. Customer outreach will be achieved through normal Westar Energy marketing channels such as messaging on the Westar website, bill inserts and email and social media campaigns.

Through customer segmentation, Franklin will identify those customers with the highest propensity to participate in the HEA program and develop appropriate targeted messaging. Franklin will also will leverage innovative marketing tools to generate inbound traffic and to manage the customer experience. These tools will promote awareness of the program, facilitate cross program marketing and provide real-time tracking information to optimize participation and provide excellent customer service. Franklin will also foster relationships with key stakeholders — partner organizations like the Kansas Energy Office (KEO); HEA program participants and past participants; trade allies, which will include Kansas-based auditors and Implementation Contractors; Small Business Lighting program participants; and Franklin team staff — to serve as trusted references and a source of referrals for the program.

The figure below shows a visual presentation of the design of an HEA program. It illustrates the customer experience at three different touch points — the pre-visit, the site visit and the post-visit — and shows the highlights of the Franklin team’s design, including enrollment, frequent communication with participants, and referral and survey links.



Franklin Energy has identified the top five metro areas to target for residential participation. This will reduce costs and make daily assessment and customer visits more feasible as it will cut down on travel time. However, we will ensure all eligible customers have the opportunity to participate.

Metro Area	% SF Homes	SF Homes
Wichita	38.2%	95,095
Kansas City	12.9%	32,224
Topeka	12.2%	30,493
Lawrence	7.7%	19,127
Manhattan	6.2%	15,388
Other	22.8%	56,672
	100%	249,000

d. Evaluation

EM&V will be conducted to monitor program results compared to objectives (see Q6).

## 5. Program Beneficiaries

- a. Expected number of participants by customer class

Westar Energy serves approximately 600,000 residential customers. An estimated 1,500 energy assessments and 300 energy audits will be conducted over the three-year program term, directly contributing to a sustainable year-round reduction in energy consumption by program participants.

### Beneficiaries

Target/Goal	Program Year 1	Program Year 2	Program Year 3	Program Year 4	Program Year 5	Total
Energy Assessments	500	500	500	0	0	1,500
Energy Audits	100	100	100	0	0	300
Totals	600	600	600	0	0	1,800

## 6. Program Evaluation, Measurement and Verification Plan

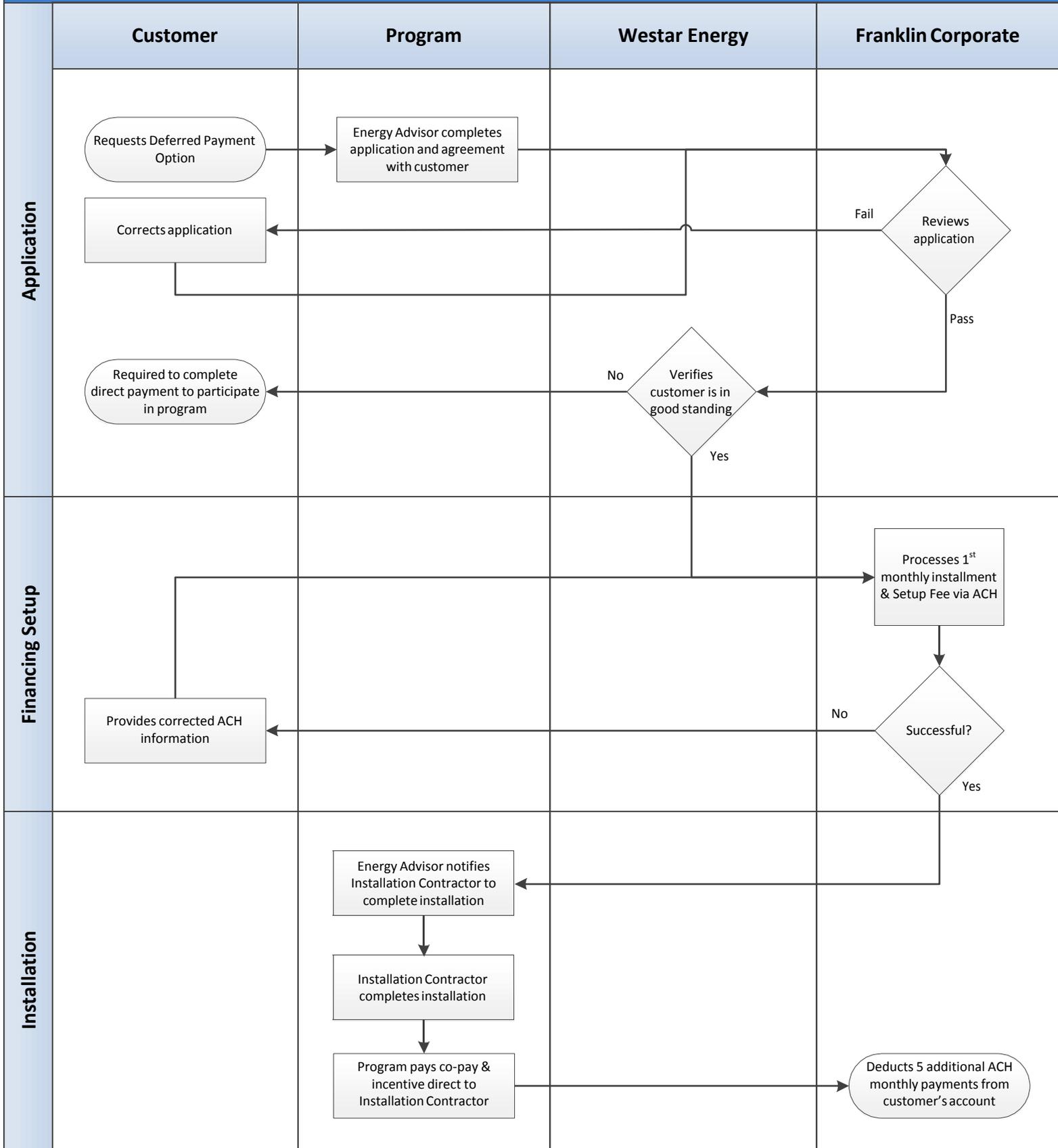
A Home Energy Analysis program scorecard will be developed to measure key metrics to be achieved by the program. Also, customer satisfaction surveys will be conducted on a regular basis to ensure that program service levels are being met.

## 7. Program Specific Tariff Schedule

Upon Commission approval of the HEA program, Westar will make a compliance filing with the tariff schedule for the program.

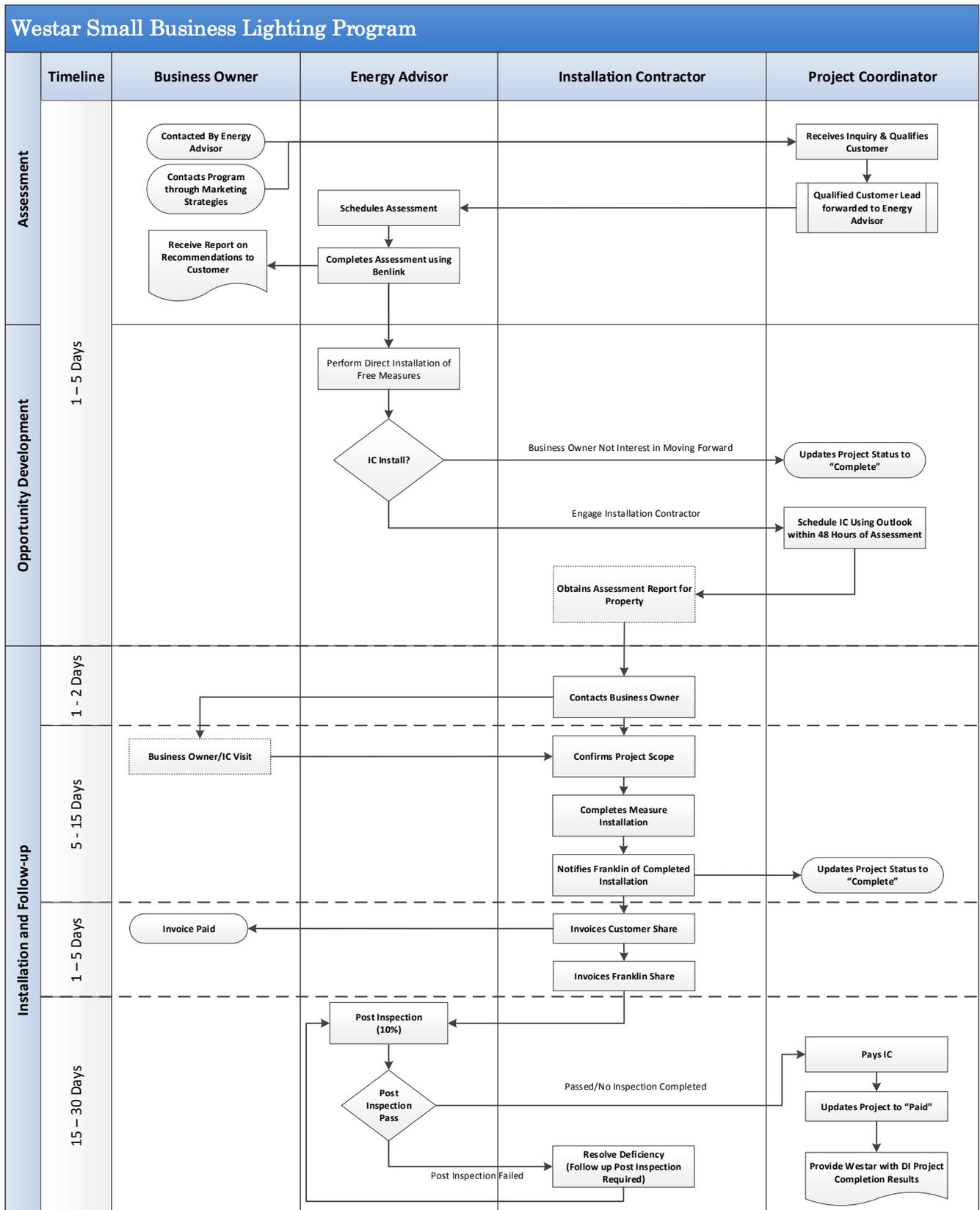
# Westar Energy Deferred Payment 0% Financing Option

Exhibit HJ-3





## Small Business Lighting Customer Process



**Summary of Installation Contractor Training  
Offered by Franklin Energy**

<b>Name of Education or Training Session</b>	<b>Date</b>	<b>Type</b>
<b>SBL Welcome Presentation, RFP information and training</b>	3 months prior to launch	Presentation
<b>New SBL Installation Contractor Orientations</b>	January 2015 March 2015 June 2015 September 2015	Presentation
<b>Lighting “Best Practices” for Small Business</b>	TBD	Presentation
<b>SBL Contractor Meeting</b>	Ongoing	Meeting
<b>Lighting Control Systems</b>	June 2015	Webinar
<b>Selling Energy Efficiency</b>	March 2015	Workshop
<b>LED Technologies</b>	July 2015	Webinar
<b>Occupancy Sensor Fundamentals</b>	August 2015	Webinar
<b>Looking beyond Simple Payback – financial sell for Small Business</b>	October 2015	Presentation
<b>Looking beyond Lighting – emerging opportunities</b>	TBD	Webinar
<b>Customer Service</b>	July 2015	Workshop
<b>Handling complaints</b>	August 2015	Workshop
<b>Recycling “Best Practices”</b>	February 2015	Webinar
<b>Advisory Panel</b>	Bi-annual	Meeting
<b>Technology and Program Update</b>	November 2015	Webinar
<b>Measure Pricing Review and Advisory Panel</b>	July 2015	Meeting
<b>As needed: monthly safety incident conference calls</b>		

### List of Other Direct Installation Programs

Westar's proposed Small Business Lighting (SBL) program is based on similar programs in operation throughout the United States. This comparison summarizes some of the significant programs that have gone through an evaluation, monitoring and verification (EM&V) process since 2005. The intent of this comparison is to highlight the factors contributing to program performance, either positively or negatively. Particular attention was focused on the recommendations from the EM&V reports. The following programs were reviewed:

<b>Utility/Program Administrator</b>	<b>Program</b>	<b>Source</b>
Commonwealth Edison/Nicor Gas	Small Business Energy Savings Program	Navigant Consulting, Small Business Energy Savings Program Evaluation Report – ComEd and Nicor Gas, March 2014
Connecticut Energy Conservation Board, Connecticut Light & Power, United Illuminating	Connecticut Small Business Energy Advantage	DNV KEMA, Impact Evaluation Report, Program Year 2011, April 2014
Consolidated Edison Company of New York/Orange and Rockland Utilities	Small Business Direct Install Program	DNV KEMA/Navigant Consulting, Process Evaluation Summary, February 2014
National Grid Massachusetts	Massachusetts Small Business Direct Install	National Grid 2011 Electric Energy Efficiency Annual Report; The Cadmus Group and Navigant Consulting, 2010-2012 Impact Evaluations, January 2013
MidAmerican Energy	BusinessCheck Program	Research Into Action, Inc., Process Evaluation of MidAmerican Energy's 2004-2005 Nonresidential Energy Efficiency and Load Management Programs, November 2006
San Diego Gas & Electric	Commercial Direct Install Program	Heschong Mahone Group, et. al., Non-Residential Process Evaluation, March 2012
Wisconsin Focus on Energy	Small Business Program	The Cadmus Group, Inc., 2012 and 2013 Program Evaluations
Xcel Energy Minnesota, Center for Energy and Environment	One-Stop Efficiency Shop	Center for Energy and Environment (self-evaluation), 2000-2012 Program Report

### Comparison of Other Direct Installation Programs

Programs below are compared quantitatively based on the percentage of energy savings and participation goals achieved, which are two key metrics for any energy efficiency program.

Utility/Program Administrator	Years in Operation Prior to Evaluation	Program Period Evaluated	% of Energy Savings Goal Achieved	% of Participation Goal Achieved
Commonwealth Edison/Nicor Gas	2	Plan Year 2012-2013	377% (electric only, net)	Not provided
Connecticut Energy Conservation Board, Connecticut Light & Power, United Illuminating	8	2011	70% <sup>1</sup> (net)	102%
Consolidated Edison Company of New York/Orange and Rockland Utilities	1.5	October 2009 – June 2011	34% (net)	Not provided
National Grid Massachusetts	21 <sup>2</sup>	2011	90% (net)	119%
MidAmerican Energy	2	2004-2005	73% (gross)	Goal exceeded, but specific numbers were not provided
San Diego Gas & Electric	<1	2011	9% (net) <sup>3</sup>	Not provided
Wisconsin Focus on Energy	2	2013	Program accounted for 20% (net) of overall C&I savings in 2013. Wisconsin measures against a four-year statewide target for all programs. In the third year (this evaluation), they had achieved 74% of the four year goal.	
Xcel Energy Minnesota, Center for Energy and Environment	12	2000-2012	Program goals are defined in kW. Cumulative kW savings in 2012 were approximately 132% of cumulative goal	Not provided

<sup>1</sup> <http://www.ctenergydashboard.com/Public/PublicPerformanceReports.aspx>

<sup>2</sup> The direct install model was first implemented by National Grid in Massachusetts in 1990, although the program has changed. Among recent program changes was expansion of the definition of small business customers from 200 to 300 kW.

<sup>3</sup> This program was new at the time of the evaluation. The SDG&E program process evaluation was intended to detect early problems with program operations, management and customer interactions. This evaluation was performed very early in the program cycle (less than 9 months after program launch), and collected data for only part of the first program year. The savings targets reflect early problems with a new data collection and invoice tracking system implemented simultaneously, as well as uncertainties about deemed values in the California DDER database. The evaluator believed that actual savings through the first half of the program were approximately double the evaluated savings due to these problems.

### Design of the Home Energy Analysis Program



## Home Energy Analysis Program Budget

Home Energy Audit Program Budget	Year 1	Year 2	Year 3	Year 4	Year 5	Totals
Level 1: Home Energy Assessments						
# of Assessments	500	500	500	0	0	1,500
Assessment Cost (\$225)	\$ 112,500	\$ 112,500	\$ 112,500	\$ -	\$ -	\$ 337,500
Program Cost	\$ 30,000	\$ 30,000	\$ 30,000	\$ -	\$ -	\$ 90,000
Direct Install Measures (\$50)	\$ 25,000	\$ 25,000	\$ 25,000	\$ -	\$ -	\$ 75,000
Customer Co-pay (\$50)	\$ (25,000)	\$ (25,000)	\$ (25,000)	\$ -	\$ -	\$ (75,000)
<b>Total Assessment Program Cost</b>	<b>\$ 142,500</b>	<b>\$ 142,500</b>	<b>\$ 142,500</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 427,500</b>
Level 2: Home Energy Audits						
# of Audits	100	100	100	0	0	300
Audit Cost (\$495)	\$ 49,500	\$ 49,500	\$ 49,500	\$ -	\$ -	\$ 148,500
Customer Co-pay (\$198)	\$ (19,800)	\$ (19,800)	\$ (19,800)	\$ -	\$ -	\$ (59,400)
<b>Total Audit Program Cost</b>	<b>\$ 29,700</b>	<b>\$ 29,700</b>	<b>\$ 29,700</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 89,100</b>
Customer Satisfaction Survey	\$ 5,000	\$ 5,000	\$ 5,000	\$ -	\$ -	\$ 15,000
<b>Total Program Cost</b>	<b>\$ 177,200</b>	<b>\$ 177,200</b>	<b>\$ 177,200</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 531,600</b>

### Home Energy Audit Program Review

Program Name	Utility/Administrator	Program Description	Evaluation Results	Annual Savings (gross prior to RR and NTG application)
Home Energy Performance Electric Program (HEP)	Ameren Illinois (Illinois)	HEP is a home diagnostic and improvement program available to Ameren Illinois/residential customers. Program provides an energy audit with direct install of a limited savings measures while on site and provides participants with a list of potential shell and HVAC improvements for a \$25 co-pay. The program provides incentives for shell measures (air sealing attic insulation and wall insulation) installed by trade partners.	126% RR 83% NTG  Evaluation of the 2011 program year by The Cadmus Group	801,722 kWh
Express Energy Efficiency Program (this program is a split offering with the Home Performance with ENERGY STAR® program)	Focus on Energy (Wisconsin)	The Express Energy Efficiency Program provides free professional installation of energy savings products. Program provides direct install of up to 10 CFLs, up to 2 LEDs, showerhead, aerators and water heater setback assistance. This	87% RR 100% NTG  Evaluation of the 2013 program year by The Cadmus Group.	12,707,319 kWh

		is the direct install offerings. See below for the audit sister program.		
Home Performance with ENERGY STAR Program	Focus on Energy (Wisconsin)	Provides detailed assessments provided by approved trade allies who are BPI certified (Building Performance Institute). Assessment identifies how much energy the home uses and provides recommendations to improve energy efficiency. Cost of assessment is market driven and depends on characteristics of the home. States that assessments average between \$200-\$400. Provides free alternative for income qualified participants.	135% RR (electric) 95% NTG  Evaluation of the 2013 program year by The Cadmus Group.	1,389,943 kWh
Residential Assistance Program	We Energies (Wisconsin)	Provided approved income qualified residential participants with direct install of limited energy savings measures, full audit of the site and coordination with state agencies for additional equipment (furnaces and	Assumed RR and NTG of 100%. No evaluation conducted on final program years.	

		water heaters). This gas only program ended in 2013 and transitioned to the above Focus on Energy programs due to its success and expanded to electric.		
Home Energy Jumpstart Program	Peoples Gas/North Shore Gas/ComEd (Illinois)	Available to owners of single family homes and two-flats. Provides direct install of energy savings equipment and home energy audit and prescriptive incentives. Direct install of thermostats, showerhead, aerators, pipe insulation and CFLs.	100% RR 96% NTG  Evaluation of the 2012/2013 program year by Navigant Consulting	3,612,740 kWh

**BEFORE THE STATE CORPORATION COMMISSION  
OF THE STATE OF KANSAS**

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**DIRECT TESTIMONY  
OF  
SCOTT UNEKIS  
WESTAR ENERGY**

---

**DOCKET NO. \_\_\_\_\_**

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1     **Q.     PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2     A.     Scott Unekis, 818 S. Kansas Ave, Topeka, KS.

3     **Q.     BY WHOM AND IN WHAT CAPACITY ARE YOU EMPLOYED?**

4     A.     Westar Energy, Inc. (Westar).    My position is Regulatory  
5           Economist.

6     **Q.     PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND  
7           AND BUSINESS EXPERIENCE.**

8     A.     I have a B.A. in Economics from the University of Kansas. I have  
9           an M.A. in Economics from the University of Kansas and an M.A. in  
10          Agricultural Economics from Kansas State University. My previous  
11          position was as the Senior Research Economist with the Kansas  
12          Corporation Commission. While at the Commission, I provided  
13          testimony in Docket 14-ATMG-320-RTS and also authored several  
14          Report and Recommendations, including those filed in Docket Nos.

1 13-SUBW-744-CON, 14-KCPE-098-TAR, and 14-KEPE-171-CON.  
2 I also contributed research support for the Report and  
3 Recommendation filed in Docket No. 13-WSEE-629-RTS. For two  
4 years prior to my employment at the Commission, I was employed  
5 as a Research Economist at the University of Kansas by the  
6 Institute for Policy and Social Research.

7 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

8 A. I will discuss Westar's proposed Targeted Energy Efficiency  
9 program. Also, attached as Exhibit SEU-1 is a document providing  
10 answers to the eight questions as required by the Commission in  
11 Appendix A of its Final Order in Docket No. 08-GIMX-441-GIV.

12 **Q. WHY IS WESTAR PROPOSING A TARGETED ENERGY**  
13 **EFFICIENCY PROGRAM?**

14 A. Westar has identified a number of customers on its system that  
15 have significantly higher energy bills than other customers with  
16 comparable size homes. We believe this can be attributed to  
17 inefficiencies in the customers' houses. High electricity  
18 consumption due to inefficiencies is not just an inefficient use of  
19 energy; it negatively impacts all customers by placing higher  
20 demands on Westar's system as a whole during peak usage times.  
21 This can result in higher costs for all customers as Westar is  
22 required to acquire additional generation to meet the demand and  
23 invest more to maintain its system. It also results in high energy

1 bills for the individual customer whose home is not efficient. The  
2 increased bills caused by inefficient homes may also exacerbate  
3 any monetary pressures being faced in the household, which –  
4 when aggregated over the system – can lead to an increase in bad  
5 debt write offs, which are paid for by all ratepayers.

6 Westar customers do have access to bill pay assistance  
7 through various sources including Project Deserve, an assistance  
8 fund which helps customers with their energy bills in times of need.  
9 While the assistance fund is beneficial, it is only temporary.  
10 Targeted Energy Efficiency through weatherization measures  
11 addresses inefficiencies within the house in a way that results in  
12 permanent reductions in the customers' bills, as well as reduces  
13 total system peak demand. Westar has recognized a need within  
14 its customer base and is therefore proposing a Targeted Energy  
15 Efficiency program to be added to its energy efficiency portfolio, the  
16 costs of which would be recovered through the Energy Efficiency  
17 Rider.

18 **Q. HOW WILL THE TARGETED ENERGY EFFICIENCY PROGRAM**  
19 **WORK?**

20 A. The Targeted Energy Efficiency Program will help residential  
21 customers utilize energy more efficiently by implementing cost-  
22 effective energy saving weatherization improvements. In most  
23 instances, customers would not have otherwise installed such

1 improvements. Qualified Westar customers will be eligible to  
2 receive a customized home energy audit from a qualified state  
3 agency that identifies possible energy saving improvements that  
4 could be performed at the customer's house. All identified  
5 measures will be subject to a cost-benefit analysis and measures  
6 that have positive values will be installed at no cost to the customer  
7 by the agency's partner contractors.

8 **Q. IS THE PROGRAM ONLY AVAILABLE TO HOMEOWNERS?**

9 A. No. Residential rental customers are also eligible, subject to  
10 additional criteria.

11 **Q. PLEASE DESCRIBE THE ELIGIBILITY CRITERIA FOR THE**  
12 **PROGRAM.**

13 A. The Kansas Housing Resources Corporation (KHRC), a designated  
14 State Agency that currently operates a state-wide federally funded  
15 weatherization program described in more detail below, has  
16 developed eligibility guidelines. Westar plans to use these  
17 established Kansas Weatherization Assistance Program (K-WAP)  
18 eligibility guidelines as detailed in Exhibit SEU-2 with a few  
19 adjustments:

20 1. Households must be current Westar customers  
21 who have made a reasonable attempt to maintain  
22 a current payment history over the last 12 months.

23  
24 2. The customer's total household electricity  
25 consumption must be greater than 3,000 kWh per  
26 year.  
27

1                   3.     Renters must be fully responsible for the  
2                   household utility bills.

3  
4                   4.     Landlords must agree under contract to not raise  
5                   the rent for at least two years from the completion  
6                   date of the weatherization procedures.

7     **Q.     HOW WILL WESTAR MANAGE THE PROGRAM?**

8     A.     Westar is proposing to use a third-party provider to administer the  
9           program.

10    **Q.     WHAT THIRD-PARTY IS WESTAR PROPOSING TO USE?**

11    A.     Westar is asking the Commission to approve the program in a way  
12           that gives Westar the discretion to adjust the third-party provider if  
13           necessary in the future without making an additional filing with the  
14           Commission.   However, Westar is currently planning to use the  
15           KHRC to oversee the Targeted Energy Efficiency program.   The  
16           KHRC is a Topeka-based designated State Agency.   Since 2003,  
17           the KHRC has overseen the K-WAP and the Low Income Home  
18           Energy Assistance Program (LIHEAP).   The K-WAP is the Kansas  
19           component of a United States Department of Energy program that  
20           enables low-income families to permanently reduce their energy  
21           bills by making their homes more efficient.   The LIHEAP is an  
22           identical program funded through the U.S. Department of Health  
23           and Human Services.

24    **Q.     WHY WAS THE KHRC SELECTED AS THE INITIAL PROVIDER**  
25    **FOR THIS PROGRAM?**

1 A. The KHRC is a Kansas organization that is already experienced in  
2 weatherization programs and already has established criteria that it  
3 uses to determine customer eligibility, as well as defined audit  
4 procedures.

5 **Q. HAS WESTAR DISCUSSED WITH KHRC THEIR INTEREST IN**  
6 **ADMINISTERING THIS PROGRAM?**

7 A. Yes. We have met several times with the staff of KHRC and  
8 developed our program criteria with their input. They are excited  
9 about the prospect of being able to help more people by  
10 administering this program for Westar.

11 **Q. IS WESTAR PROPOSING ANY OTHER MODIFICATIONS TO**  
12 **THE ELIGIBILITY CRITERIA?**

13 A. Yes. Westar is proposing three other changes in addition to the  
14 modifications mentioned above. First, under the K-WAP,  
15 customers receiving assistance under the program are given up to  
16 \$500 to use for incidental repairs that are necessary to protect or  
17 aid in the installation of an energy conservation measure. Westar  
18 proposes to increase the limit on incidental repairs from \$500 to  
19 \$1,500 and classify ductwork as eligible for incidental repair funds.  
20 Increasing this limit will allow the KHRC to include additional  
21 customers who otherwise qualify for the program, incur the  
22 expense of the inspections, but then are disqualified because the  
23 repairs needed to protect or aid in the installation of the proposed

1 measures would be rendered ineffective due to the condition of the  
2 house. For example, a leaking roof would damage any new attic  
3 insulation; therefore the cost of fixing the roof would fall under  
4 incidental repairs. If there is not enough in the incidental repairs  
5 budget, the roof would not be able to be fixed, and the house would  
6 no longer qualify for the program. If that happens, the KHRC loses  
7 the money spent up to that point, and a customer in need is not  
8 helped.

9 Second, for rental customers receiving assistance under the  
10 K-WAP, the KHRC requires the landlord to be responsible for the  
11 total cost of any heating/cooling system replacements minus \$250.  
12 Therefore if a landlord is unable or unwilling to finance the  
13 repairs/replacement, a major inefficient appliance remains in the  
14 home. The logic behind this restriction is that a new HVAC system  
15 is a major capital improvement that increases the value of the rental  
16 unit. However, if the tenant is solely responsible for the utility bills,  
17 the benefits of the new system largely accrue to them. Because  
18 energy efficiency is the goal of the program, Westar would like to  
19 facilitate the replacement of inefficient HVAC systems. Therefore,  
20 Westar is proposing that the landlord contribute 50% of the cost to  
21 repair/replace a qualified HVAC system, up to a cap of \$1,500.

22 Third, Westar is proposing the KHRC to be able to account  
23 for efficiency losses on AC units (window and central units) in its

1           audit procedures. Currently the audit criteria require use of the  
2           factory efficiency levels when calculating the efficiency gains of  
3           proposed repairs, even if the unit is not operating at that level upon  
4           inspection. Again, with energy efficiency being the goal of the  
5           program, we want to be able to address the worst cases of  
6           efficiency degradation.

7                         Westar's proposed modifications to the K-WAP criteria are  
8           based on the existing criteria being utilized by that program. The  
9           criteria we apply for the Targeted EE program may change as a  
10          result of changes by the KHRC to its guidelines for K-WAP or as a  
11          result of a decision by Westar to utilize a different administrator for  
12          the Targeted EE program. In the event of such a change, Westar  
13          will notify Commission Staff of the new criteria being applied.

14          **Q.    HOW WILL THE PROGRAM BE EVALUATED AND MEASURED?**

15          A.    The K-WAP uses energy audit software that builds a unique  
16          savings profile that is specific to each house it weatherizes. The  
17          specifications of the housing unit (such as square footage,  
18          orientation of external walls, current level of building materials, etc.)  
19          are imputed, then specific improvements are entered individually  
20          (such as new insulation, new caulking, etc.). A savings to  
21          investment ratio (SIR) for each proposed improvement is calculated  
22          and the results for each are summarized across the entire unit.

1           As described in Exhibit SEU-2, K-WAP audit procedures require  
2 all weatherization procedures to be installed have a SIR of 1.0 or  
3 greater. Further, KHRC representatives must exercise good  
4 judgment in determining the appropriateness of some measures  
5 that do have a SIR of greater than 1.0, making sure to maximize  
6 the benefit of limited resources over the most homes possible.

7           A final inspection will be completed by a state-certified  
8 weatherization inspector and will certify that all applicable work has  
9 been completed in a professional manner and in accordance with  
10 the priority determined by the audit procedures. Each completed  
11 project will be entered into a tracking database for future  
12 monitoring.

13           Evaluation of program effectiveness will be overseen by  
14 KHRC and reported to Westar and will involve:

- 15           1. Once a year follow-up inspections of at least 5% of  
16           completed homes to ensure continued  
17           performance.
- 18           2. Fiscal review of subgrantees' finances.
- 19           3. Tracking and analysis of monitoring activities.

20           Westar will request its own report tracking the dollars spent and  
21           units weatherized for submittal with the Energy Efficiency Rider  
22           update each year.

23           **Q. WHAT ARE THE RESULTS OF THE BENEFIT-COST TESTS**  
24           **WHEN APPLIED TO THIS PROGRAM?**

1 A. The results of the benefit-cost analyses are summarized in the  
2 following table<sup>1</sup>:

TRC	.20
Utility	.20
Societal	.20
Participant	N/A
RIM	.12

3 As indicated from the results above, the Targeted Energy  
4 Efficiency program does not pass any of the tests. However, the  
5 Energy Efficiency Investment Act, Kansas House Bill 2482, section  
6 1(c)(1)(D) provides:

7 In making its decision whether or not to  
8 approve the proposed program, the  
9 commission shall determine the appropriate  
10 test for evaluating the cost-effectiveness of the  
11 demand-side program. Programs targeted to  
12 low-income customers or general education  
13 campaigns do not need to meet a cost-  
14 effectiveness test, so long as the commission  
15 determines that the program or campaign is in  
16 the public interest and is supported by a  
17 reasonable budget in the context of the overall  
18 budget.

19 Because the eligibility requirements of Westar's proposed  
20 Targeted Energy Efficiency program help to ensure that the  
21 program benefits low-income customers, Westar believes that  
22 pursuant to the Energy Efficiency Investment Act, the program does

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<sup>1</sup> A detailed description of the benefit-cost model used in the analysis can be found in Ralph Nigro's Direct Testimony.

1 not need to pass any benefit-cost test and should be evaluated to  
2 determine whether it is in the public interest generally and is  
3 supported by a reasonable budget.

4 **Q. IS THE PROPOSED PROGRAM IN THE PUBLIC INTEREST?**

5 A. Westar believes there is a considerable need for energy efficiency  
6 measures within its residential customer base. As mentioned  
7 earlier in my testimony, the negative side effects of inefficient  
8 consumption of energy are not just limited to the household using  
9 the energy. As a result, the benefits of the proposed Targeted  
10 Energy Efficiency program will not be limited to the households that  
11 directly receive the weatherization measures. All of Westar's  
12 customers will benefit through decreased system demand and  
13 decreased bad debt expense.

14 Westar's goal is that a participating customer will save up to  
15 25% on his or her household energy bills. System wide, Westar  
16 hopes to provide weatherization measures at least 2,300 houses,  
17 which in turn would translate to 5,845,030 kWh of energy saved  
18 over the five years of the program.

19 **Q. WHAT IS WESTAR'S PROPOSED BUDGET?**

20 A. Westar is proposing to provide approximately \$3,000,000 a year in  
21 funding to the KHRC. As Mr. Jensen indicates in his Direct  
22 Testimony, this will result in an almost net zero increase in the  
23 overall budget for Westar's energy efficiency portfolio, because the

1 WattSaver program is planned to move into “sunset mode” and its  
2 budget is spread among The Targeted Energy Efficiency, Small  
3 Business Lighting, and Home Energy Audit programs being  
4 proposed in this filing.

5 **Q. IS KHRC’S ADMINISTRATIVE EXPENSE INCLUDED IN**  
6 **WESTAR’S BUDGET?**

7 A. Yes. Westar has capped the amount to be used for administrative  
8 purposes at 10% of the total budget. Westar is confident that the  
9 KHRC can comply with this restriction, because they have  
10 historically been able to maintain their administrative expenses at  
11 6.5% of their total budget.

12 **Q. WHAT AMOUNT HAS BEEN ALLOCATED FOR MARKETING**  
13 **THE PROGRAM?**

14 A. Westar’s marketing strategy involves cooperation with the KHRC to  
15 educate potential customers and is designed to have a minimal  
16 impact on the program’s budget. The proposed amount to be used  
17 for marketing of \$22,500 per year is less than 1% of the yearly  
18 budget.

19 **Q. HOW WILL WESTAR RECOVER THE COST OF THE**  
20 **PROPOSED PROGRAM?**

21 A. Westar requests Commission approval to recover the costs of the  
22 Targeted Energy Efficiency Program through our Energy Efficiency

1 Rider, in the same manner as all of the other programs in our  
2 energy efficiency portfolio.

3 **Q. IS THAT THE ONLY RECOVERY MECHANISM REQUESTED?**

4 A. No. Westar is also requesting Commission approval for recovery of  
5 the lost margins associated with implementation of the Targeted  
6 Energy Efficiency Program. The lost margin recovery mechanism  
7 being proposed is described in detail in Ralph Nigro's Direct  
8 Testimony.

9 **Q. WHY SHOULD THE COMMISSION ALLOW WESTAR TO**  
10 **RECOVER LOST MARGINS ASSOCIATED WITH THE**  
11 **PROPOSED PROGRAM?**

12 A. The recovery of lost margins for the proposed program is consistent  
13 with Commission precedent. Lost margins recovery is appropriate  
14 because it the proposed program fits within the criteria identified by  
15 the Commission in its Final Order in Docket No. 08-GIMX-441-GIV.  
16 In its Final Order in that docket, the Commission found that  
17 programs fitting within the "whole house concept" and/or programs  
18 that benefitted low or fixed-income customers or renters would be  
19 most likely to qualify for a shared savings mechanism, such as the  
20 lost margins recovery mechanism we are proposing. Final Order,  
21 Docket No. 08-GIMX-441-GIV, at ¶¶ 97-99. As I discussed above,  
22 the Targeted Energy Efficiency Program not only fits within the

1 whole house concept, it also benefits low and fixed-income  
2 customers and renters.

3 The Commission also approved the use of a similar lost  
4 margins recovery mechanism for Westar's Simple Savings  
5 program. See *Order Approving Partnership between Efficiency*  
6 *Kansas and Westar's Simple Savings Program*, Docket No. 10-  
7 WSEE-775-TAR (Simple Savings Order), ¶¶26-32. The Simple  
8 Savings program was similar to the Targeted Energy Efficiency  
9 Program being proposed here because it provided assistance (in  
10 the form of loans) to customers to implement energy efficiency  
11 measures at their homes. In the Simple Savings docket, the  
12 Commission explained:

13 Although the Commission may not favor  
14 particular forms of recovery in isolation of  
15 specific energy-efficiency programs, the  
16 Commission is willing to consider and evaluate  
17 proposals as it gains more knowledge and  
18 expertise in the area of energy efficiency. The  
19 Commission is willing to consider varying forms  
20 of recovery tied to programs that the  
21 Commission believes will achieve its  
22 established goal of utilizing energy efficiency  
23 as a resource to achieve a balanced approach  
24 between traditional and alternative energy  
25 sources to meet Kansas energy needs.

26 Simple Savings Order, at ¶ 27. The lost margins recovery  
27 mechanism we are proposing in this docket is modeled after the  
28 mechanism approved by the Commission for our Simple Savings  
29 program.

1 Q. THANK YOU.

# Westar Energy Targeted Energy Efficiency Program

## 1. Program Description

Westar has recognized the need for energy efficiency measures among our customers that otherwise might not be able to install them and is partnering with the Kansas Housing Resources Corporation (KHRC), a designated State Agency that oversees the Kansas Weatherization Assistance Program (K-WAP), to administer Westar’s proposed Targeted Energy Efficiency Program

## 2. Program Goal

The program’s goal is to assist customers with utilizing electricity efficiently.

### a. Expected Energy and Demand Savings:

Energy audit software that builds a unique savings profile that is specific to each household is used. The specs of the housing unit (such as square footage, orientation of external walls, current level of building materials, etc.) are imputed, then specific improvements are entered individually (such as upgraded heating/cooling, new caulking, etc.). A savings to investment ratio (SIR) for each proposed improvement is calculated and the results for each are summarized across the entire unit.

Historically, the weatherization measures’ gross savings have been calculated at 25% of a household’s total energy consumption.

## 3. Program Framework / Strategy

### a. Relationship to other programs

The Weatherization plan is in concert with Westar’s other residential energy efficiency programs and will be filed at the same time as the proposed small business lighting and home energy audit programs.

### b. Marketing strategy:

Coordinate with the KHRC on sharing location data in order for them to better target areas in need. Provide in-house (Westar) customer education program to alert customers to program.

### c. Program Delivery: (Third Party)

The Kansas Housing Resources Corporation is a designated State Agency that Westar is using to provide weatherization assistance to its customers.

### d. Partners

The following is a list of subgrantees that the KHRC uses to install weatherization measures on the local level.

Subgrantee Agency	Type of Organization
-------------------	----------------------

Community Action, Inc. 1000 SE Hancock Topeka, KS 66607-1578 <b>(Contractors)</b>	Local Community Action Agency
East Central Ks Economic Opportunity Corporation P.O. Box 40, 1320 S. Ash Street, Ottawa, KS 66067-0040 <b>(Contractors)</b>	Local Community Action Agency
Interfaith Housing Services, Inc 1326 East Avenue A; PO Box 1987 Hutchinson, Kansas 67504-1987 <b>(Contractors)</b>	Nonprofit Organization
Johnson County, Human Services and Aging 12525 W. 87 <sup>th</sup> Street Parkway Lenexa, KS 66215-4525 <b>(Contractors)</b>	Unit of Local Government
North Central Regional Planning Commission P.O. Box 565, 109 North Mill Beloit, KS 67420-0565 <b>(Contractors)</b>	Unit of Local Government
South Central Ks Economic Development District 200 West Douglas, Suite 710 Wichita, KS 67202-4012 <b>(Contractor and Crew)</b>	Nonprofit Organization
Southeast Kansas Community Action Program P.O. Box 128, 401 N. Sinnet Girard, KS 66743-0128 <b>(Contractor and Crew)</b>	Local Community Action Agency

#### 4. Program Budget

a. Start up costs:

No startup costs are projected.

b. Administrative Costs:

Administrative costs are capped at 10% of total costs, but have historically been 6.5% of total cost.

c. Incentives:

Customers receive:

- i. A weatherization plan specifically tailored to their dwelling, with each energy efficiency measure specifically defined and the savings described

- ii. Up to \$1,500 in incidental repairs to protect or aid in the installation of energy efficiency measures
- iii. Up to \$1,500 (per unit average) of health and safety expenditures to remedy health and safety hazards which are necessary before, or because of, the installation of weatherization materials

d. Marketing

Allocate .75% of total program budget (\$22,500/year) for marketing. Marketing strategy consists of mostly customer education. Specifically, \$7,500 is to be used for targeted direct mailing in the first year, \$3,000 per year for the remaining 4 years.

e. Evaluation

K-WAP audit procedures require all weatherization procedures to be installed have a SIR of 1.0 or greater. Further, KHRC representatives must exercise good judgment in determining the appropriateness of some measures that do have a SIR greater than 1.0, making sure to maximize the benefit of limited resources over the most homes possible. A final inspection shall be completed by a state-certified weatherization inspector and shall certify that all applicable work has been completed in a professional manner and in accordance with the priority determined by the audit procedures. Each completed project will be entered into a tracking database for future monitoring.

Evaluation of program effectiveness is overseen by K-WAP and involves:

Once a year follow-up inspections of at least 5% of completed homes to ensure continued performance

Fiscal review of finances

Tracking and analysis of monitoring activities

Westar would request its own report tracking the dollars spent and units weatherized for submittal to the EE Rider for recovery

**5. Program Beneficiaries**

- a. Westar expects to reach at least an additional 2,300 houses with its Targeted Energy Efficiency Program.

**6. Program Benefit-Cost analysis**

<b>TRC</b>	<b>.20</b>
<b>UTILITY</b>	<b>.20</b>
<b>SOCIETAL</b>	<b>.20</b>
<b>PARTICIPANT</b>	<b>N/A</b>
<b>RIM</b>	<b>.12</b>

**7. Program EM&V Plan**

EM&V will be performed in accordance with the guidelines established in Docket No. 08-GIMX-442-GIV.

**8. Program Specific Tariff Schedule**

Upon Commission approval of the Targeted EE program, Westar will make a compliance filing with the tariff schedule for the program.



# State of Kansas Weatherization State Plan Application 2014

Kansas Housing Resources Corporation  
611 S. Kansas Avenue, Suite 300  
Topeka, KS 66603-3803  
(785) 217-2001 / FAX (785) 232-8084  
[www.kshousingcorp.org](http://www.kshousingcorp.org)



## **V. WEATHERIZATION MASTER FILE**

### **V.1 ELIGIBILITY**

#### **V.1.1 Approach to Determining Client Eligibility**

##### **Definition of income used to determine eligibility:**

Renters or homeowners whose income is at or below 200 percent of the poverty level, determined in accordance with criteria established by the Director of the Office of Management and Budget, shall be eligible for weatherization assistance in Kansas. In addition, households which contain a member who has received cash assistance payments under Title IV or XVI of the Social Security Act or applicable state or local law during the 12-month period preceding the determination of eligibility for weatherization assistance shall be eligible for weatherization assistance.

##### **Household Eligibility:**

A dwelling unit shall be eligible for weatherization assistance if it is occupied by an eligible family unit whose income is at or below 200 percent of the poverty level and the structure is eligible as outlined in V.1.2 Approach to Determining Building Eligibility.

##### **Qualified Aliens Eligibility for Benefits:**

Subgrantees shall ensure that DOE weatherization services shall only be provided to eligible populations. All clients files will contain an Alien Certification form as found in the Kansas Subgrantee Procedures Manual.

It has been determined that Johnson County falls under the requirements of the Personal Responsibility and Work Opportunity Act of 1996, H.R. 3734, and the subsequent proposed Department of Justice rule issued on August 4, 1998. Johnson County has implemented policies to enable them to conduct status verification of the non-qualified aliens whom they serve in the Weatherization Assistance Program.

#### **V. 1.2 Approach to Determining Building Eligibility**

##### **Procedures to determine that units weatherized have eligibility documentation:**

The applicant must provide evidence or income documentation satisfactory to the outreach worker that the household meets the eligibility requirements. The documentation must be maintained in the client file and made available for inspection by the agency employee and state staff. Applicant income must be verified for the one-year period prior to the certification month. In accordance with DOE Weatherization Program Notice 02-3, income data for a part of a year may be annualized in order to determine eligibility—for example, by multiplying by four the amount of income received during the most recent three months. The method of calculation is to be determined by the Subgrantee and should be uniformly applied. Tax forms may be used to verify income only if the certification period is from January through December. Applications on file for one year or more must be recertified for the year prior to pre-inspection. Applicant eligibility verification shall be documented in the file and shall include, as a minimum, (1) which 12-month period was considered, (2) a list of all sources of

applicant income, (3) documentation of income from each source for the period(s) being considered, and (4) the date and initials of the agency employee verifying income.

### **Reweathering:**

No dwelling unit may be weatherized (1) which is designated for acquisition or clearance by a federal, state or local program within 12 months from the date weatherization would be scheduled to be completed; or (2) which has been weatherized since September 30, 1994. An exception is allowable for a unit, which has been weatherized since September 30, 1994, if it has been damaged by fire, flood or act of God and repair of the damage to weatherization materials was not covered by insurance.

Dwelling units partially weatherized under this program or under other federal programs during the period September 30, 1975 through September 30, 1994 may receive further assistance for weatherization. Subgrantees are instructed not to repeat weatherization measures which were previously completed unless those measures are no longer effective. All reweatherized units must meet current weatherization standards on completion. The state will assure through monthly review of production that reweatherizations do not exceed ten percent of the state's completed dwelling units. Reweatherizations have averaged less than one percent over the past three years.

In the event of a natural disaster which results in damage to low-income homes, subgrantee and state staff will evaluate the damage to determine the appropriate role for the Weatherization Assistance Program in relief efforts. Homes which are eligible for reweatherization under 10 CFR 440.18(e) (2) may be reweatherized at the discretion of the subgrantee weatherization director. If an area is declared a Presidential or Gubernatorial disaster area, weatherization staff may assist in prevention or clean-up activities, including the cost of materials which may be used in future approved weatherization activities. If the damage is substantial and the state determines reallocation of funds to disaster areas is appropriate, the state may reallocate current grants to meet the emergency needs. Any action taken by the K-WAP and subsequent local WAP will receive DOE's written pre-approval before any type of assistance is provided.

During scheduled on-site monitoring visits, K-WAP staff reviews a sample of client files to assure they were eligible for weatherization. In addition, K-WAP staff reviews annual subgrantee CPA reports for findings related to ineligible units. In each case, the K-WAP recoups weatherization funding for ineligible units.

### **Eligible Structures:**

Every dwelling weatherized must meet both the client eligibility and the building eligibility requirements.

Structures are ineligible for weatherization grant funds if they are condemned, scheduled for demolition, or designated for acquisition or clearance by a Federal, State, or local program within twelve months from the date of weatherization scheduled completion.

Structures will be assessed to ensure that weatherization measures will be effective. The expected lifetime of measures and their benefit will be taken into consideration when assessing structure eligibility. Conditions which constitute such limitations may include, but are not limited to:

- If remodeling or rehabilitation of the property (either planned or in progress) is substantial enough to degrade the effectiveness of weatherization.
- If the conditions of structural or mechanical systems of the home are such that it is not safe and possible to install or complete core measures; i.e., furnace safety and efficiency inspections and repair, blower door guided envelope air sealing, insulation.
- If it is not possible to improve the condition of the structure sufficiently to allow the installation of the core measures with the maximum \$500 for incidental repair, or with coordinated rehabilitation funding.
- If, at a minimum, health and safety items cannot be addressed.

If conditions exist which preclude the weatherization of the structure, a brief written description of the conditions should be supplied to the client. This notification should be coupled with the notification that weatherization assistance is postponed or denied until such time that the problem conditions have been resolved. The agency should inform the client of a “reasonable” amount of time for the resolution of the problem conditions. See Deferral Standards.

Subgrantees will exercise caution in dealing with non-traditional type dwelling units to ensure that they meet Program regulations on whether the unit is, in fact, eligible. The weatherization of non-stationary campers and trailers that do not have a mailing address associated with the eligible applicant is not allowed. The use of a post office box for non-stationary campers or trailers does not meet this requirement.

### **Rental Units:**

In PY 2014, K-WAP will require landlords to contribute the total cost of the heating and cooling units minus \$250 of K-WAP dollars to repair or replace the unit.

In compliance with 10 CFR 440.22, the following procedures shall be used in the weatherization of rental dwellings:

1. Subgrantees shall use the financial assistance guidelines for dwelling units to determine eligibility.
2. Subgrantees shall obtain a signed agreement (Landlord Rental Agreement) from the owner/landlord of the building or his designated agent authorizing the work to be done and agreeing to the landlord’s financial participation in weatherization costs. Subgrantees should develop a detailed description of the weatherization measures authorized and costs assigned to the landlord and the agency. Rents shall not be raised because of the increased value of dwelling units due solely to weatherization assistance provided under this part. The agreement shall include a provision that the landlord agrees not to raise the rent for at least one year from the time the work is completed, unless raising the rent is based on factors unrelated to the weatherization improvements. The client shall be provided a copy of the signed agreement. The K-WAP will not use a lien on landlord property.
3. In order to weatherize an entire multi-family building, the building must have at least 66 percent program eligibility rate (50 percent duplex or four-plex) including those units that will become

eligible within 180 days under a federal, state or local government program for rehabilitating the building or making similar improvements to the building. On a case-by-case basis, with prior approval from DOE, certain eligible types of large multi-family buildings may be eligible for weatherization if as few as 50 percent of the units were certified as eligible for weatherization. This exception applies only to those large multi-family buildings where an investment of DOE funds would result in significant energy-efficiency improvement because of the upgrades to equipment, energy systems, common space, or the building shell.

4. The maximum amount of grant funds which can be spent for weatherization is determined by the number of units within that building occupied by eligible families/tenants, multiplied by the average cost per home. That amount may be spent on measures for the entire building. For reporting purposes, all units receiving weatherization may be reported as “completed units.”
5. Approved measures (10 CFR 440, Revised Appendix A) that are applicable to multi-family units should be assessed, prioritized and implemented in an energy savings/cost effective manner appropriate to the particular building.
6. A building which is totally vacant may be weatherized only in conjunction with a federally funded rehabilitation project, and with the assurance that at least 66 percent of the units will be leased to income eligible tenants. If the building is partially occupied, vacant units may be weatherized if 66 percent of the total units are occupied by eligible tenants, but the maximum funding which can be used for the building is determined by the number of eligible units, as in the example used in #3.
7. No undue or excessive enhancements shall accrue to the value of weatherized dwelling units in Kansas. Weatherization measures to be completed on rental units, as on owner units, must be cost-effective, as determined by approved unit profiles or by an individualized REM/Design audit. The state may recoup costs of excessive weatherization measures.
8. The benefits of weatherization services shall accrue primarily to the low-income tenants residing in the unit.
9. Subgrantees shall include in their rental agreements the address and telephone number of the Legal Aid Society office(s) serving their areas, as well as a statement that Legal Aid is responsible for arbitrating landlord-tenant disagreements arising from weatherization activities completed on the units.
10. Shelters are eligible for weatherization activities, as follows:
  - a. “Shelter” is defined as a dwelling unit or units whose principal purpose is to house on a temporary basis individuals who may or may not be related to one another and who are not living in nursing homes, prisons or similar institutional care facilities.
  - b. For the purpose of determining how many dwelling units exist in a shelter, the minimum size for each dwelling unit within the shelter shall be 800 square feet of living space, or each floor of the shelter may be counted as a dwelling unit.

**Deferral Standards:**

Deferral may be necessary if health and safety issues cannot be adequately addressed through this guidance. The decision to defer work in a dwelling is difficult but necessary in some cases. This does not mean that assistance will never be available, but that work must be postponed until the problems can be resolved and/or alternative sources of help are found. In the judgment of the subgrantees, which include crews and contractors, any conditions that exist, which may endanger the health and/or safety of the workers or occupants, should be deferred until the conditions are corrected. Deferral may also be necessary where occupants are uncooperative, abusive, or threatening.

Subgrantees will develop guidelines and a standardized form for such situations.\* The form will include the client's name and address, dates of the audit/assessment and when the client was informed, a clear description of the problem, conditions under which weatherization could continue, the responsibility of all parties involved, and the client(s) signature(s) indicating that they understand and have been informed of their rights and options and have the opportunity to appeal.

Referrals to appropriate supportive agencies to correct the noted deficiencies will also become standardized through a resource brochure created in collaboration with the Kansas Healthy Homes and Lead Hazard Prevention Program within KDHE.

Deferral conditions may include:

1. The client has known health conditions that prohibit the installation of insulation and other weatherization materials.
2. The building structure or its mechanical systems, including electrical and plumbing, are in such a state of disrepair that failure is imminent and the conditions cannot be resolved cost-effectively.
3. The house has sewage or other sanitary problems that would further endanger the client and weatherization installers if weatherization work were performed.
4. The house has been condemned or electrical, heating, plumbing, or other equipment has been "red tagged" by local or state building officials or utilities and cannot be remedied by weatherization funds.
5. Moisture problems have developed signs of mold.
6. Dangerous conditions exist due to high carbon monoxide levels in combustion appliances, and cannot be resolved under existing health and safety measures.
7. The client is uncooperative, abusive, or threatening to the crew, subcontractors, auditors, inspectors, or others who must work on or visit the house.
8. The extent and condition of lead-based paint in the house would potentially create further health and safety hazards.

9. If, in the judgment of the energy auditor, any condition exists which may endanger the health and/or safety of the work crew or subcontractor, the work should not proceed until the condition is corrected.
10. The utilities to the property have been disconnected by the utility company.
11. The combined price of required H&S measures exceeds the average H&S expenditure to the extent that the agency cannot balance the expenditure to maintain the required H&S percentage. In this instance, the agency may defer the home until additional funds are located to lower the expenditure to within the average.

\*Disclaimer notices are currently in place for lead paint and mold found in homes when needed.

### **V. 1.2 Definition of Children**

The State of Kansas has defined “children,” in terms of prioritizing households including children, as those 18 years old and under. Data are compiled in age groups of 0-2, 3-5, 5 and under, and 6-18 years of age.

### **V.1.4 Approach to Tribal Organizations**

In accordance with federal rule, the State of Kansas recommends that tribal organizations not be treated as local applicants eligible to submit an application to operate a Weatherization Assistance Program. Native Americans will receive assistance as eligible individual applicants under program guidelines.

## **V.2 SELECTION OF AREAS TO BE SERVED**

Each subgrantee listed in this application is a public or private nonprofit agency, including Community Action Agencies (CAAs), units of local government, a housing service agency, and an economic development district.

Each existing subgrantee was selected initially by criteria set forth in 10 CFR 440.15. (See map of areas attached.) Every year an analysis is completed on each subgrantee’s performance, including the review of monitoring visits and resolution of findings, production reports, expenditures in relationship to units completed, the quality of weatherization services provided, annual CPA audit reports, and general staff observations from interactions with subgrantee staff and clients. On the basis of each subgrantee’s performance, a written closeout report is issued each year, requiring responses to noncompliance issues.

The WAP Subgrantee Procedure Manual describes procedures for the state’s response to subgrantee noncompliance, including recoupment or reduction of funding, subgrant probation, and subgrant termination.

The entire geographical area of the Grantee shall be served by the Weatherization Assistance Program. This requirement will be accomplished with a combination of DOE and other funds, as available, and may require multiple program years.



### **V.3 PRIORITIES**

K-WAP and Kansas weatherization subgrantees give priority to three groups of households: those with low-income elderly clients, those with low-income clients who have disabilities, and those with low-income families with children 18 years of age or under. The weatherization subgrantees seek actively and aggressively to identify the households, which include these priority groups. Their outreach methods include media advertising; networking with Area Agencies on Aging, the Kansas Department of Children and Families, homeless shelters, public housing authorities, other providers, and word of mouth. Subgrantees market their services in key locations where low-income residents are provided services.

Subgrantees have developed procedures for serving clients by priority. These priorities (including the above federally-mandated priorities) may include:

1. Elderly persons (age 60 or over)
2. Persons with disabilities (any individual who has a physical or mental disability which constitutes or results in a substantial handicap to the individual's employment; or a person who has a record of having, or is regarded as having, a physical or mental impairment which substantially limits one or more of the individual's major life activities; or someone who has a disability which would make the individual eligible to receive disability insurance benefits or supplemental security income from the Social Security Administration or developmentally disabled assistance from the Department of Health and Human Services)
3. Families with children 18 years old or under
4. Those geographic regions that did not receive weatherization benefits in the previous program year.

Emergencies may take precedence over all other priorities. Emergencies are defined as life-threatening housing conditions, and they shall be documented as such in client files.

Weatherization subgrantees are sensitive to the issues of high-energy burden and high residential fuel usage. The State of Kansas is working with other agencies to establish these categories for use in identifying priorities. Until a uniform standard is developed, high energy burden will not be a priority for eligibility.

Kansas estimates services to targeted groups (i.e., elderly, persons with disabilities, children) based on their percentage in the general population, according to the 2008-2012 American Community Survey 5-year Estimates. The state also estimates its services to owners and renters on the same basis.

### **V.4 CLIMATIC CONDITIONS**

The National Oceanic and Atmospheric Administration's account of climatic conditions from the National Climatic Data Center reported that Kansas' 30-year average (1981-2010) heating degree days was 5,159 and its average cooling degree days was 1,359. The data file is attached for four representative weather stations. Based on the cooling degree-days, the state has approved specific

cooling measures which are determined cost-effective by the REM/Design audit. The REM/Design audit utilizes the four provided climatic zones across Kansas to factor in climatic variances within the state.

## **V.5 TYPE OF WEATHERIZATION WORK TO BE DONE**

### **V.5.1 Technical Guides and Materials**

Prioritization of weatherization measures to be performed on a dwelling unit have been established according to 10 CFR 440.21, Standards and Techniques for Weatherization. Energy audits will be conducted on each dwelling unit covered by the state's weatherization program.

Weatherization measures approved in Kansas, as justified by an individualized REM/Design audit, include:

1. Diagnostic combustion appliance testing.
2. Measures to reduce infiltration.
3. General heat waste measures, water heater tank wrap, and insulation for ducts, water heaters, and pipes located in unheated spaces.
4. Installation of a smart thermostat.
5. Necessary repairs or replacement of primary heating unit.
6. Installation of attic insulation up to R-38.
7. Installation of dense-pack wall insulation.
8. Installation of floor insulation up to R-30.
9. Installation of interior or exterior storm windows over single-glazed, loose fitting primary windows.
10. Installation of wire or fabric sunscreen.
11. General cooling measures; including, air conditioning replacement.
12. Installation of other measures necessary to protect installed weatherization materials.
13. Necessary health and safety repairs.
14. Installation of low-flow shower heads, faucet aerators, and compact florescent light bulbs (CFL's) as general base load energy saving devices.
15. Refrigerator replacement.
16. Installation of primary windows and exterior grade doors.

All weatherization materials must meet the latest standards for weatherization as published in 10 CFR 440.21, revised Appendix A, or subsequent ASTM, ANSI, or FS-approved standards which supersede an individual standard. Subgrantees shall give preference in their purchases to products containing the highest level of recovered or recycled materials practicable.

For PY 2014, as a minimum, all weatherization activities will follow as closely as possible the procedures outlined in the following: Kansas Subgrantee Procedures Manual 2012, Kansas Materials and Installation Standards 2009, and all program updates as issued.

The Kansas Subgrantee Procedures Manual will be updated and released during PY 2014. The Kansas Material and Installation Standards will be gradually phased out as additional training becomes available on the Standard Work Specification (SWS) for Home Energy Upgrades. Kansas has partnered with the Santa Fe Community College Center of Excellence: Green Building and

Energy Efficiency program to develop and implement a new field guide. This new “Deck of Cards” will incorporate the field standards and field guide in one document and will be aligned and reference the appropriate SWS standard.

All new material will be made available to the Kansas Weatherization network with training opportunities during the implementation period.

### **V.5.2 Energy Audit Procedures**

K-WAP has received DOE’s (5) year audit approval and it is valid through 2016.

In no case may a weatherization measure be installed that shows an SIR of less than 1.0. Subgrantees must also demonstrate good judgment in determining the appropriateness of some measures that show an SIR of 1.0 or above, assuring they manage to the average cost per unit, and balancing between providing more services to fewer households and providing appropriate services to more households.

Multi-family units comprise a small percentage of eligible units within Kansas, with the majority of these units being small single level complexes ranging between 2-8 units under one roof each with individual entrances. The REM/Design audit tool has been approved and will be utilized for these complexes. Weatherization of multi-family units does not exceed 20%. Funding levels will prevent the weatherization of larger complexes and high rises. DOE pre-approval will be sought on both of these types of properties.

<u>Unit Types</u>	<u>Audit Procedures and Dates Most Recently Approved by DOE</u>
Single-family	REM/Design audit (2011)
Manufactured Housing	REM/Design audit (2011)
Multi-family	REM/Design audit (2011)
High Rise	TREAT (on a case by case basis)

### **V.5.3 Final Inspection**

For PY 2014, no dwelling unit may be reported to the Department of Energy as completed until the subgrantee or its authorized representative has conducted a final inspection and certified that applicable work has been completed in a professional manner and in accordance with the priority determined by the audit procedures. Final inspections shall include post-weatherization blower door tests and furnace tests. Only state-certified weatherization inspectors may conduct final inspections. All unit information will be entered into Weatherization Management System (WMS) web-based reporting system. A Building Weatherization Report (BWR) will be printed from WMS and maintained in each client file.

By April 1, 2015, all housing units reported to DOE as completed must be inspected by an individual possessing the knowledge, skills, and abilities as required in the National Renewable Energy Laboratory (NREL) Job Task Analysis for Quality Control Inspectors. Final inspectors and monitoring staff shall demonstrate this skill set by obtaining the Home Energy Professional Quality Control Inspector (QCI) certification by PY 2015.

In order to meet this objective, funding shall be made available through Training and Technical Assistance (T&TA) funding from DOE. T&TA funds were made available in PY2013 to allow subgrantee inspection staff to attend QCI training from IREC accredited training centers. Inspectors successfully completing the training will be encouraged to sit for the QCI certification exam when additional T&TA funds are made available. Each subgrantee will be responsible for ensuring that a certified QCI inspector is on staff, or available by contract, to complete unit inspections by PY 2015.

Beginning PY 2015, all DOE completed unit client files will include signed documentation from a QCI certified individual stating that all work meets the required standards. Authorized QCI individuals will be required to keep their certifications up to date and on file with the Grantee.

## **V.6 WEATHERIZATION ANALYSIS OF EFFECTIVENESS**

Subgrantee effectiveness is assessed through multiple measures. Onsite monitoring requirements, as described in V.8.3 Monitoring Activities, provide ideal conditions during which subgrantees may be evaluated and areas in need of improvement can be identified. In addition to the formal monitoring reporting that tracks deficiencies and findings and outlines how to make improvements, monitoring visits allow for a comprehensive review of the agency. Such review may include technical and financial systems and procedures, follow up on previous training outcomes and identification of future training needs, and the sharing of “Best Practices” at all levels of operation.

Monthly desk top budgetary reviews enable the grantee to analyze subgrantee performance and productivity on an ongoing basis.

The K-WAP fuel savings effectiveness is calculated using data provided from the REM/Design audit software. The analysis provides K-WAP with information on each weatherized unit which allows staff to identify significantly high and/or significantly low performers. K-WAP staff analyzes the data for T&TA purposes that allows them to compare effectiveness within a Subgrantee’s area and between Subgrantees. The need for additional T&TA may be identified through these comparisons.

Each subgrantee is provided an annual award closeout report that is an analysis of their performance and effectiveness. The report may include the review of monitoring visits and resolution of findings, production reports, expenditures in relationship to units completed, the quality of weatherization services provided, annual CPA audit reports, general staff observations from interactions with subgrantee staff and clients, and agency average cost expenditures as compared to entire state averages. This annual review allows Grantee staff to review and compare subgrantees’ productivity and effectiveness.

- Infra-red Camera - Each agency is to use the camera to verify conditions at the time of final inspection for each dwelling. Each final inspection is to have infrared pictures (minimum of four pictures) included as a representative sample of the major work that has been performed on the dwelling. The pictures are to be included with every dwelling file that has had a completed final inspection.
- Success Stories - Each agency will be expected to collect a total of four “success stories” that occurred throughout the Program Year. The story must be accompanied with pictures of the dwelling and if at all possible the unit’s resident. KHRC can be contacted for the appropriate consent forms for potential written publication and use of the picture(s).

## **V.7 HEALTH AND SAFETY**

The K-WAP stresses the importance of improved client health and safety as one of the primary outcomes of weatherization. Weatherization training includes observing possible sources of moisture, testing air leakage, questioning clients about their comfort level and lifestyle, and testing combustion appliances for safety. Pre-inspection guidelines and work standards addressed in the WAP Subgrantee Procedure Manual detail the problems to review, the hazards from various sources, and their interactions with other factors. Inspectors are taught to use the automated audit and inspection as teaching tools for clients.

**Incidental Repairs:** Incidental repairs are those materials and installation costs which are performed to protect or aid in the installation of an energy conservation measure and are part of the total allowable expenditure. Justification for the cost of each incidental repair and how it is necessary for the effective performance or preservation of a weatherization measure must be documented in the client file. The BWR for each home that receives incidental repair measures should include a brief description of the measures performed as incidental repairs.

Incidental repair costs do not receive individual audit approval but are included in the total package cost of weatherization measures when calculating the SIR for the whole building. For each weatherized unit, the total package cost including incidental repairs must have an SIR of 1.0 or greater. KWAP will retain a maximum cap of \$500 per dwelling unit for incidental repairs. This \$500 limit is not an average, but the maximum which can be expended on each home for this category.

The subgrantees may exceed the \$500 limit, if certain requirements are met, by submitting a written waiver request to the KHRC/WAP staff for written approval. The written request must include the total amount to be expended and must include the REM/Design audit to insure the home maintains an overall SIR of 1. The written request for a waiver can be submitted by e-mail as long as all pertinent information is submitted to KHRC/WAP staff for approval.

### **Health and Safety Allowance:**

WPN 11-6 requires Grantees justify the Health and Safety limits requested in this plan.

The following table provides the recent historical averages for health and safety cost per home expense data broken down by topic for all Kansas Subgrantees.

Health and Safety Category	Historical Cost	Projected Cost
General Health and Safety*	\$241.26	\$ 741.26
Furnace Replacement for H&S	\$407.17	\$ 407.17
Lead Safe Work Practices	\$ 61.83	\$ 61.83
Water Heater Replacement for H&S	\$ 8.47	\$ 8.47
Totals	\$718.73	\$1218.73

\*Gas leak repair, combustion vent repair, correct indoor air quality, removal of hazardous material, installation of smoke and CO alarms, correct duct system pressure imbalances.

The projected rise in General Health and Safety is based on incurred costs associated with compliance of ASHRAE 62.2-2013.

Health and Safety expenditures shall not exceed an average of \$1218.73 per unit which is 17.44% of the average cost per unit. This limit should be sufficient to remedy most health and safety concerns associated with the installation of weatherization measures in Kansas as required by DOE. Kansas does have a significant number of clients with older housing stock that may have dirt floor basements and/or crawl spaces, asbestos, including vermiculite, lead based paint, knob and tube wiring, and/or a numerous other H&S related concerns. Expenses charged as health and safety measures do not require cost justification and are not to be included as part of the per unit average. The H&S average quarterly expenditure shall not exceed 17.44% of the program operations to ensure budget control. State review and approval will be required for any Subgrantee exceeding this set amount.

### **Grantee Health and Safety**

There are some instances where, depending on circumstances, the measure can be considered either a health and safety measure OR an energy conservation measure (e.g., furnaces). In those instances where the measure has a cost-effective savings-to-investment ratio (SIR) of one (1) or greater, the measure should be treated as a weatherization efficiency measure.

Health and Safety funds are to remedy health and safety hazards which are necessary before, or because of, the installation of weatherization materials. These funds will be expended by subgrantees in direct weatherization activities. Costs related to grantee health and safety will be charged to health and safety cost category, as applicable.

### **Crew and/or Contractor Health and Safety**

Local agencies must comply with Occupational Safety and Health Administration (OSHA) requirements in all weatherization activities. Costs for local agencies to comply with OSHA requirements may be charged as *health and safety* or *tools and equipment*. Kansas will use the tools and equipment cost category consistently throughout the state.

Because of the wide range of activities involved in weatherizing a house, ensuring crew health and safety requires a broad knowledge of the appropriate OSHA requirements. Some of these requirements include, but are not limited to: respirator protection, techniques for safely lifting heavy objects, electrical equipment safety, ladder safety, and general worker protection. OSHA standards should be consulted for further details. Other useful information includes Material Safety Data Sheets that identify potential health risks and describe the proper use, handling, and storage of a wide variety of materials, including some common weatherization materials. They also suggest personal protective equipment and address first aid measures.

Kansas weatherization requires that all weatherization crew workers to receive OSHA's 10 hour training, and all weatherization inspectors and crew leaders to receive OSHA's 30 hour training.

Kansas weatherization also recognizes the connection between weatherization work and the health of the occupants. Partnerships have been and will continue to be developed between KWAP and the Healthy Homes Program and the Kansas Department of Health and Environment. All inspectors have already attended the course Health Opportunities in Energy Audits and Upgrades offered by KDHE

Kansas Healthy Homes and Lead Hazard Prevention Program. This course will ensure that there is consistent education and applied prevention techniques used in each unit to minimize any negative health outcomes that could result as an impact of the weatherization activities on the families we serve.

### **Client Health and Safety**

The State of Kansas and subgrantees are required to take all reasonable precautions against performing work on homes that will subject workers or clients to health and safety risks. Before beginning work on the residence, the agency must take into consideration the health concerns of each occupant, the condition of the dwelling, and the possible effect of work to be performed on any particular health or medical condition of the occupants. When a person's health is fragile and/or the work activities would constitute a health or safety hazard, the occupants at risk will be required to leave the home during these work activities.

Client education has been provided over the years by different methods in each area of the state, ranging from detailed discussions with clients during pre- and post-inspections to access to program-related publications. This includes, but is not limited to: lead-based paint, asbestos, combustion safety and venting, carbon monoxide, mold and moisture, ventilation, structure hazards, and other hazards. As the program has become more technology-oriented, state staff encourages subgrantee staff to use the technology to demonstrate energy-saving techniques and to explain the outcome of poor energy habits, bad energy decisions, and potential household hazards.

### **Potential Hazard Considerations**

1. **Biologicals** – Removal of mold, odors, viruses, bacteria, unsanitary conditions (including raw sewage), and rotting wood is not a Weatherization responsibility; however, program workers frequently encounter these conditions. DOE funds may not be used to correct the condition and the home may need to be deferred (Subgrantee Procedures Manual, Section 2155: Postponement of Weatherization). Caution should be taken when selecting air tightness limits for dwellings with these problems. Since some of these conditions are related to moisture, the subgrantee has established procedures that allow local agencies to assess moisture conditions as a part of the initial audit procedure and treat them as part of the weatherization work. If necessary, weatherization services may need to be delayed until the problem can be referred to another agency that can take remedial action.
  - **Mold and Moisture** - Correction of moisture and mold creating conditions allowed. Mold cleanup or testing is not an allowable health and safety cost. Surface preparation where weatherization measures are being installed must be charged as part of the energy conservation measure and cannot be charged to the health and safety budget category. Where severe Mold and Moisture issues cannot be addressed, deferral is required.
  - **Drainage - gutters, down spouts, extensions, flashing, sump pumps, landscape, etc.** Major drainage issues are beyond the scope of the Weatherization Assistance Program. Drainage repairs are allowable health and safety costs only as they relate to mold and moisture.

2. ***Combustion Appliances and Combustion Gases*** – Devices needed to test for dangerous concentrations of combustion products in the living space may be purchased under the health and safety cost category. Subgrantees have developed a policy on this hazard. The policy includes a procedure for testing combustion appliances in all homes, but particularly before and after air tightening. This procedure will consist of checking carbon monoxide levels in the flue/vent of vented appliances and near the exhaust of unvented applicants; examining draft-ability of flues, start-up spillage at flues, and adequacy of combustion air; and testing for fuel leaks. Combustion appliances to be tested include furnaces, boilers, and water heaters. Subgrantee health and safety procedures explain in detail how the subgrantee will handle problems discovered in its testing program. These details will include the methods used to determine when DOE monies will be used to remedy incidental problems and how the subgrantee will treat problems that cannot be remedied with DOE monies after discovery.
  - a. Gas furnaces - Red tagged”, inoperable or nonexistent heating system replacement, repair, or installation is allowed where climate conditions warrant, unless prevented by other guidance herein.
  - b. Air conditioning system - Replacement, repair, or installation is not an allowed health and safety cost. Replacement must be charged as an energy conservation measure.
  - c. Water heaters - Water heating systems can be replaced using weatherization funds if one of the following circumstances exist; heat exchanger cracked, producing a high concentration of CO, or leaking.
  - d. Gas Dryers - Proper venting to the outside for combustion appliances, including gas dryers is required. Correction of venting is allowed when testing indicates a problem.
  - e. Gas Cook Stoves – Replacement, repair, or installation is not an allowable health and safety or energy conservation measure.
  - f. Unvented heaters – Removal is required, except as secondary heat where the unit conforms to ANSI Z21.11.2. Unvented heaters must be removed prior to weatherization but may remain until a safe heating system is in place.
  - g. Smoke, Carbon Monoxide alarms, and Fire Extinguishers – installation of smoke/CO alarms is allowed where alarms are not present or inoperable. Replacement of operable smoke/CO alarms is not an allowable cost. Providing fire extinguishers is allowed only when solid fuels are present.
  
3. ***Other Heating Sources*** -
  - a. Solid Fuel Heating (Wood Stoves, etc.) – Maintenance, repair, and replacement of primary indoor heating units is allowed where occupant health and safety is a concern. Maintenance and repair of secondary heating units is allowed.
  - b. Space Heaters, Stand alone Electric – Repair, replacement, or installation, is not allowed. Removal is recommended.
  - c. Space Heaters, Unvented Combustion – Removal is required, except as secondary heat where the unit conforms to ANSI Z21.11.2. Units that do not meet ANSI Z21.11.2 must be removed prior to weatherization but may remain until a replacement heating system is in place.
  - d. Space Heaters, Vented Combustion – Should be treated as a furnace.
  
4. ***Fire Hazards*** – Combustion appliances and their associated venting systems can also present potential fire hazards. State health and safety procedures will identify inadequate clearances

between combustion appliances (including venting systems) and combustible materials. Correction of fire hazards is allowed when necessary to safely perform weatherization.

5. ***Existing Occupant Health Problems*** – Agencies should be aware that some individuals’ health problems could be exacerbated by weatherization activities. For example, some clients can be sensitive to dust generated from the installation of cellulose insulation. There is also some concern that the use of blower doors could aggravate certain health problems, although the limited research conducted on this topic has not validated these concerns. Subgrantees will establish procedures to identify preexisting conditions (e.g., allergies) and address such problems when they are found. Those procedures will address the manner in which such problems will be identified and the steps to be taken to ensure that weatherization work will not worsen these problems.

When a person’s health may be at risk and/or the work activities could constitute a health or safety hazard, the occupant at risk will be required to take appropriate action based on severity of risk. Temporary relocation of at-risk occupants may be allowed on a case by case basis. Failure or the inability to take appropriate actions must result in deferral.

## 6. ***Indoor Air Quality***

- a. ***Asbestos*** – General asbestos removal is not approved as a health and safety weatherization cost. Major asbestos problems will be referred to the appropriate state agency and/or the Environmental Protection Agency (EPA). Where local agencies work on large heating and distribution systems, including related piping, asbestos removal may be necessary. Removal is allowed to the extent that energy savings resulting from the measure will provide a cost-effective savings-to-investment ratio. This would normally be true with work done on large, multifamily heating systems. Where permitted by code or EPA regulations, less costly measures that fall short of asbestos removal, such as encapsulation, may be used. Removal and replacement of asbestos siding for purposes of wall cavity insulation is permissible if allowed by state and local codes. “Asbestos” is covered in the State of Kansas Weatherization Procedures Manual.
- ***In siding, walls, ceilings, etc*** - Removal of siding is allowed to perform energy conservation measures. All precautions must be taken not to damage siding. Asbestos siding should never be cut or drilled. Where possible, insulate through home interior.
  - ***In vermiculite*** - When vermiculite is present, take precautionary measures as if it contains asbestos during inspection. The home will be deferred until the removal of vermiculite by a certified asbestos professional is completed. DOE funds cannot be used for removal or testing.
  - ***On pipes, furnaces, other small covered surfaces*** – Suspected asbestos containing material present on pipes, furnaces, or other small covered surfaces, regardless of condition, shall be assumed to contain asbestos. The home will be deferred until the removal or encapsulation of asbestos containing material has been completed by a certified asbestos professional or deemed non-asbestos. DOE funds cannot be used for removal, encapsulation or testing.

- b. ***Spray Polyurethane Foam (SPF)*** Use EPA recommendations (available online at [http://www.epa.gov/dfe/pubs/projects/spf/spray\\_polyurethane\\_foam.html](http://www.epa.gov/dfe/pubs/projects/spf/spray_polyurethane_foam.html)) when working within the conditioned space or when SPF fumes become evident within the conditioned space. When working outside the building envelope, isolate the area where foam will be applied, take precautions so that fumes will not transfer to inside conditioned space, and exhaust fumes outside the home.
- c. ***Radon*** – Radon testing and abatement is not an allowable activity under the weatherization program. However, those costs associated with taking precautions in a dwelling known to have radon problems are allowable weatherization expenditures. Whenever site conditions permit, exposed dirt must be covered with a vapor barrier, except for mobile homes.
- d. ***Formaldehyde and Volatile Organic Compounds (VOCs)*** – Formaldehyde vapors may be slowly released by some new carpets, waferboard, plywood, etc. VOCs are also emitted by some household cleaning agents. Caution will be taken when selecting air tightness limits in dwellings with VOC problems.

Removal of pollutants is allowed and is required if they pose a risk to workers. If pollutants pose a risk to workers and removal cannot be performed or is not allowed by the client, the unit must be deferred.

#### **7. *Lead Paint – Lead Safe Work:***

- a. All inspectors, agency crew members, contractors and crew members must attend and successfully complete the Kansas Department of Health and Environment (KDHE) approved, Lead Safe Work Practice Training course and fulfill KDHE requirements to become Certified Renovators.
- b. All contractors and crew members will be responsible for complying with the EPA's Renovation Repair and Painting (RRP) regulations as enforced by KDHE in Kansas.
- c. Agencies with crews and weatherization contractors must be a Licensed Renovation Firm.
- d. KDHE and Kansas weatherization are requiring all licensed firms to employ only certified Renovators who are registered with the State of Kansas to perform weatherization work.
- e. Subgrantee agencies are required to monitor crews and contractors a minimum of once a month in addition to whenever agency staff are in the area if possible. Documentation of the visits including pictures must be on file for monitors to review upon request.
- f. State monitors will also review in-progress weatherization work to ensure all agencies and workers are in compliance.

- g. Subgrantee agencies and contractors found to be out of compliance may be subject to penalties and fines up to \$5,000 per occurrence.
  - h. Only those costs directly associated with the lead safe practices should be charged to the health and safety budget category.
8. ***Building Structure*** – Building rehabilitation is beyond the scope of the Weatherization Assistance Program; however, program workers frequently encounter homes in poor structural condition. Dwellings whose structural integrity is in question should be referred to housing rehabilitation programs, where appropriate. Weatherization services may need to be delayed until the dwelling can be made safe for crews and occupants. Incidental repairs necessary for the effective performance or preservation of weatherization materials are allowed. Examples of these limited repairs include sealing minor roof leaks to preserve new attic insulation and repairing water-damaged flooring as part of replacing a water heater.
9. ***Electrical Issues*** – The two primary energy-related health and safety electrical concerns are insulating homes that contain knob-and-tube wiring and identifying overloaded electrical circuits. Older electric wiring, primarily knob-and-tube wiring, located in a wall cavity or exposed on an attic floor was intended by code to have free air movement to cool the wire when it is carrying an electric current. Laboratory tests have shown that retrofitting thermal insulation around electric wiring can cause it to overheat, resulting in a fire hazard. For this reason, the installation of insulation around live knob and tube wiring should not be performed. Sidewalls that contain live knob and tube wiring are not to be blown with insulation. In attics, a reasonable cost of rewiring live knob and tube should be included in the cost of the attic insulation for audit approval. The cost of rewiring will be charged with the cost of the energy conservation measure of attic insulation if audit approved. If the cost of rewiring is prohibitive, the cost of attic insulation shall be run independently and should be valleyed or dammed to prevent covering live knob and tube. Subgrantee's are to abide by more stringent applicable codes in jurisdictions where the work is being performed.

***Note:*** Serious electrical hazards exist when gross overloads are present. Should auditors and crews find such existing problems, they should notify the owner. Weatherization measures that involve the installation of new equipment such as air conditioners, heat pumps, or electric water heaters can exacerbate previously marginal overload problems to hazardous levels. The problem should also be noted in the client file. To the extent that these problems prevent adequate weatherization, the agency should consider repairing them on a case-by-case basis.

Minor repairs necessary for weatherization measures and where the health or safety of the occupant is at risk are allowed. Upgrades and repairs when direct component of an energy conservation measure must be charged as part of the energy conservation measure and cannot be charged to the health and safety budget category.

10. ***Refrigerant Issues*** – The replacement of air conditioners, approved since 1992, and the recently approved refrigerator replacements require agencies to reclaim refrigerant per Clean Air Act 1990, section 608, as amended by 40 CFR 82, 5/14/93. The appliance vendor, manufacturing center, or other entity recovering the refrigerant must possess EPA-approved section 608, type I or universal certification. Kansas will have appropriate protocols in place that comply with all standards relating to the disposal of the existing appliances.

11. **Other Code Compliance Issues** –The correction of preexisting code compliance issues is not an allowable cost other than where weatherization measures are being conducted. State and local (or jurisdiction having authority) codes must be followed while installing weatherization measures. Condemned properties and properties where “red tagged” health and safety conditions exist that cannot be corrected under this guidance should be deferred.
12. **Pests** - Pest removal is allowed only where infestation would prevent weatherization. Infestation of pests may be cause for deferral where it cannot be reasonably removed or poses health and safety concern for workers. Screening of windows and points of access is allowed to prevent intrusion. The use of harsh chemicals is to be avoided.
13. **Ventilation** – ASHRAE 62.2-2013 minimum ventilation standards are required to be met to the fullest extent possible and are allowable health and safety costs for all DOE funded homes. Weatherization inspectors received training on ASHRAE 62.2 evaluation, fan flow, and follow up testing to ensure compliance. Additional ventilation will be added or existing ventilation modified where required.
14. **Window and Door Replacement, Window Guards** – Replacement, Repair, or installation is not an allowable health and safety cost but may be allowed as an incidental repair or an efficiency measure if cost justified.
15. **Injury Prevention of Occupants and Weatherization Workers – Measures such as repairing stairs and replacing handrails** – Workers must take all reasonable precautions against performing work on homes that will subject workers or occupants to health and safety risks. Minor repairs and installation may be conducted only when necessary to effectively weatherize the home; otherwise these measures are not allowed.

## **V.8 PROGRAM MANAGEMENT**

### **V.8.1 Overview**

In 1992, the Kansas Weatherization Assistance Program was located in the Housing Development Division, of the Kansas Department of Commerce & Housing. In 2003, the State of Kansas Governor's Executive Reorganization Order created a stand-alone agency. The agency is now the Kansas Housing Resources Corporation (KHRC), effective July 1, 2003. A KHRC organization chart is attached.

As well as the Weatherization Assistance Program, the KHRC administers the HOME, Community Services Block Grant (CSBG), Emergency Solutions Grant (ESG), and Low Income Housing Tax Credit (LIHTC); Section 8 Housing projects, and the State Housing Trust Fund. The K-WAP has developed mutually beneficial relationships with HOME program modules, ESG, and LIHTC.

The K-WAP also obtains client information and shares data with the Low Income Energy Assistance Program (LIEAP), located in the Kansas Department of Children and Families, in an effort to target the higher energy users who utilize the utility assistance program. A distinct agency, the Kansas Corporation Commission, houses the Energy Division, funded by the State Energy Program.

### **V.8.2 Administrative Expenditure Limits**

The State of Kansas shall not exceed the ten percent maximum administrative allocation. The K-WAP shall not exceed the five percent maximum and its subgrantee agencies shall not exceed the remaining five percent administrative allocation. To ensure the compliance of the 10 percent maximum federal mandate, K-WAP has written policies and procedures which require that K-WAP costs are monitored and maintained against the approved agency budget. All costs are reviewed and approved by the program director prior to authorization to expend funds. Subgrantee administrative costs are controlled by the approved budget and narrative, which is a part of the signed grant agreement. All administrative costs which are determined unallowable, as a result of a resolved agency or CPA audit, shall be recouped by the K-WAP.

An exception to exceed the ten percent total administrative requirement shall apply to subgrantees funded at less than \$350,000 of DOE funds. Subgrantee agencies are required to submit justification for administrative funds in excess of five percent of the total grant, with state approval based on the individual subgrantee needs.

### **V.8.3 Monitoring Activities**

In accordance with 10 CFR 440, K-WAP has the responsibility to perform monitoring and oversight of the program implementation and work performed by all its subgrantees. This responsibility includes ensuring that grant funds are expended in accordance with applicable law, including regulations contained in 10 CFR 440; applicable OMB circulars, DOE Financial Assistance Rule 10 CFR 600; Weatherization Program Notices, and other procedures that DOE may issue.

Approximately 50% of the Grantee T&TA funds will be allocated for program oversight and travel by state monitors. The remaining T&TA budget will be used for onsite training, mandatory trainings, trainers, or passed down to Subgrantees for preapproved individual T&TA activities. Additional funding sources may be utilized for special T&TA or monitoring activities as needed.

To fulfill this requirement K-WAP will conduct comprehensive monitoring of each Subgrantee at least once a year, utilizing the following approach:

1. Subgrantee and home inspection monitoring will be conducted during one- to four-day on-site visits by the Weatherization Technical Field Representative. For larger agencies several visits may be needed. K-WAP will inspect a minimum of five percent of completed homes, filling out a Home Inspection Monitoring Instrument (see WAP Subgrantee Procedure Manual) for all homes inspected. In progress units will be monitored as available.
  - a. Units which demonstrate satisfactory completion of weatherization measures will be identified as “Pass” units; those units in which weatherization measures were completed but could have benefitted by “Best Practices” will be identified as “Pass with Comments” and T&TA or suggestions for the future will be made. Units on which weatherization measures either were not completed or were completed unsatisfactorily will be identified as “Rework” units. If significant deficiencies are discovered, such as health and safety violations, poor quality installation of materials, or major measures missed, the subgrantee will be required to take appropriate corrective action to resolve the outstanding issues in a timely manner.

- b. Issues not resolved may result in K-WAP's recoupment of funds invested in the "Rework" units.
    - c. Agencies receiving a high number of "Reworks" will be monitored more frequently and will have a higher percentage of homes examined until the Grantee can be assured that all deficiencies are resolved. Once procedures are in place to prevent reoccurrences, typical monitoring will resume.
  2. K-WAP staff will conduct a programmatic and management review during annual two- to three-day on-site compliance monitoring visits, utilizing the compliance-monitoring instrument found in the WAP Subgrantee Procedure Manual.
    - a. Issues not resolved may result in disciplinary action, including recoupment of disallowed costs, grant probation, and grant termination. See WAP Subgrantee Procedure Manual, 2000: High Risk Status.
  3. K-WAP staff will conduct a fiscal review during annual two- to three-day on-site compliance monitoring visits by the Deputy Division Fiscal Officer, utilizing the Fiscal Monitoring Tool and the accompanying Fiscal Monitoring Guide as found in the Procedures Manual.
    - a. Sensitive or significant noncompliance findings, such as waste, fraud, or abuse will be reported to DOE immediately.
  4. K-WAP staff will review monthly financial and production reports for each agency.
    - a. If irregularities or deviations from planned activities are found, K-WAP staff will contact subgrantee agency staff for an explanation or correction. This contact will usually be by telephone first; if not resolved by telephone, K-WAP will initiate a written request for action.
    - b. If irregularities or deviations occur over several months, K-WAP may withhold payments until they are corrected. Long-term irregularities or deviations from planned activities may result in disallowed costs, grant probation, and grant termination.
    - c. Sensitive or significant noncompliance findings, such as waste, fraud, or abuse will be reported to DOE immediately.
  5. K-WAP staff will review annual CPA reports of agency financial activities.
    - a. If the reports note program findings, K-WAP will require responses and, if appropriate, corrective action.
    - b. Depending on the severity of any problems reported, a subgrantee may receive a follow-up monitoring review, concentrating on prior deficiencies and required corrective actions.
    - c. Issues not resolved in a timely manner may result in recoupment of disallowed costs, grant probation, and grant termination.

- d. Sensitive or significant noncompliance findings, such as waste, fraud, or abuse will be reported to DOE immediately.
6. Tracking and analysis of monitoring will be conducted to ensure resolution and improvement.
- a. An exit briefing will be conducted at the conclusion of a monitoring visit. Any issues that present imminent danger to people will be discussed and must be resolved immediately.
  - b. K-WAP staff will submit a written report within 30 working days of the on-site visit.
  - c. The subgrantee has the right to respond in writing and present additional supporting documentation, clarification, and information as to why a particular finding(s) should be waived.
  - d. If necessary, the subgrantee will have 35 calendar days to respond to K-WAP with an acceptable corrective action plan.
  - e. All corrective action plans will be tracked to completion and will conclude with a close out letter.
  - f. Annually, K-WAP staff will summarize each of its Subgrantees’ reviews and monitoring reports and will use the information during annual planning and assessment of T&TA needs.

**Monitoring Activities planned for the Program Year**

The purpose of monitoring will be to assure weatherization programs are being managed within federal and state guidelines and that eligible low-income families are receiving high-quality and appropriate weatherization of their homes.

K-WAP staff will inspect a minimum of five percent of homes statewide, completed with DOE and LIEAP weatherization funds. During on-site visits, state staff will utilize the Home Inspection Monitoring Instrument and Compliance Monitoring Instrument found in the WAP Subgrantee Procedure Manual to conduct a program, fiscal, and administrative review.

Subgrantee CPA reports will be reviewed annually by K-WAP staff, as they are received. K-WAP staff will contact subgrantees whose CPA reports note program findings and will require responses and, if appropriate, correction. Depending on the severity of any problems reported, a subgrantee may receive a follow-up monitoring review concentrating on prior deficiencies and required corrective actions.

A tentative monitoring schedule for the 2014 program year follows:

<u>Subgrantee</u>	<u>Date</u>
CAI .....	November 4-5
ECKAN .....	December 8-11
IHS.....	January 12-14

JO.CO .....	February 2-3
NCRPC .....	February 23-26
SCKEDD .....	March 16-20
SEKCAP .....	April 13-14

#### **V.8.4 Training and Technical Assistance**

The state's T&TA funding is used to pay salary, travel, and operational costs for K-WAP staff to provide monitoring/T&TA to subgrantee and contractor staff and for contracted T&TA from the Kansas Building Science Institute (KBSI) and other training facilities. Subgrantee expenses for participation in T&TA activities will be funded from DOE T&TA or other funds.

The purpose of all training and technical assistance (T&TA) will be to maximize energy savings, improve program and operational efficiencies, improve crew/contractor work quality, reduce the potential for waste, fraud, abuse and mismanagement, and increase client satisfaction.

The K-WAP will use the following methods to provide T&TA:

1. K-WAP staff will provide T&TA through onsite, written, and telephone communication with subgrantee staff.
2. Staff will provide specific T&TA on automated audit inspection procedures as a regular component of the on-site home inspection monitoring visits.
3. K-WAP staff or contractor(s) will provide on-site or offsite T&TA as needed. Need may be identified by the subgrantee staff, DOE Project Officer monitoring visits, internal state audits, IG reports, or by K-WAP staff as the result of observation for resolution of problems, or to meet updates required by DOE.
4. K-WAP has made contact with regional training programs to receive technical training that is aligned with NREL's Job Task Analyses (JTA). This Tier 1 training will be provide to K-WAP workers by IREC accredited training centers. K-WAP maintains communications with the Kansas Building Science Institute (KBSI) to provide specialized and short term training as needed. This Tier 2 training will be provided to K-WAP as needed. Attendance in specialized training is mandatory as announced. Non-compliance may result in state certification suspension.
5. K-WAP and subgrantee staff will participate in national activities as they are planned. K-WAP will assure staff is able to attend these meetings and will encourage subgrantee staff to take advantage of training opportunities in the region by funding subgrantee attendance with T&TA funds available to the K-WAP.
6. K-WAP management staff will attend DOE mandated activities/events, NASCSP events, State Weatherization Directors' meetings, National DOE Conference, and other staff development trainings as needed or required. Continuing education and conference attendance ensure Grantee effectiveness in administering and implementing the grant.
7. The Annual Kansas Housing Conference will include a fiscal and technical program training track and is a mandatory T&TA activity.

8. Kansas requires successful completion of its certification training for all inspectors. The state provides this training through its partnership with KBSI and other regional training providers, allocating T&TA funds to each subgrantee for the mandated training, as needed. When a subgrantee agency is unable to hire a certified weatherization inspector, the state will allow a six-month probationary period, during which the new hire must complete his/her certification requirements. Requirements include: Weatherization Inspection Certification, Mobile Home Inspection training, Combustion Appliance training, LSW and RRP certification, OSHA 30 hour card, and mold training. During the probationary period, all inspections must be supervised by a certified weatherization inspector. Alternatively, an agency without a certified inspector may subcontract with a certified inspector. For the current certified staff, use of continuing education credits to maintain certification will be funded through T&TA funds. 30 hours of continuing education credits are required every two years to maintain certification.
9. Quarterly Weatherization Directors' Meetings will be scheduled to address areas of common concern and to focus on needed State Plan revisions. T&TA needs will be identified through feedback from the subgrantees.
10. The K-WAP fuel savings effectiveness is calculated using data provided from the REM/Design audit software. The analysis provides K-WAP with information on each weatherized unit which allows staff to identify significantly high and/or significantly low performers. K-WAP staff analyzes the data for T&TA purposes that allows them to compare effectiveness within a Subgrantee's area and between Subgrantees. The need for additional T&TA will be identified through these comparisons.
11. Effectiveness of T&TA activities will be evaluated by formal evaluation forms completed by participants to statewide training workshops, state monitoring staff's observation and reporting of improvement in work standards and reporting, informal comments by workshop participants, agency directors, and others, and by disbursement of surveys to subgrantees and contractors.
12. Appropriate KHRC WAP staff will participate through partnership in the Kansas Healthy Homes initiative. The Healthy Homes Program Director maintains ongoing contact with KHRC WAP staff and serves on the KHRC WAP Public Advisory Council.

Client education has been provided over the years by different methods in each area of the state, ranging from detailed discussions with clients during pre- and post-inspections to access to program-related publications. As the program has become more technology-oriented, state staff encourages subgrantee staff to use the technology to demonstrate energy-saving techniques and to explain the outcome of poor energy habits and bad energy decisions. Training related to lead-based paint hazards will be on-going to meet DOE requirements. A quarterly module-training format has worked well for Kansas's T&TA activities. The state will continue to build its training plan in quarter modules, with efforts to avoid major disruptions during peak production months.

#### **Activities planned for the 2014 Program Year follow:**

##### **First Quarter (July- September):**

- Kansas Weatherization Directors' Meeting                      August 27, 2014
- Kansas Housing Conference    August 27-29, 2014
- NASCSP Training Event    September 8-12, 2014
- Super Circular Training    TBA

- Quality Control Inspector Testing TBA

The Kansas Science Building Institute (KBSI) will provide Inspector Certification Training, Mobile Home Inspection training, and Combustion Appliance training for new inspectors. A regional training facility will be utilized to obtain required national certifications. Existing relationships exist with the following IREC accredited training centers: Indiana Community Action Association (INCAA), Northwest Arkansas Community College (NWACC), and Santa Fe Community College. K-WAP staff will provide on-site T&TA in audit-related pre-inspection procedures as a T&TA component of regularly scheduled home inspection monitoring visits. Agency on-site visits will be scheduled as needed for WMS and T&TA audit procedures (REM design). Other on-site T&TA visits will be provided, as needed, at the request of individual agencies or as need is identified by K-WAP staff.

A Weatherization Directors' meeting is scheduled for the first quarter. The meetings have proven a very useful tool in developing a cooperative, positive interaction between state and local weatherization staff.

The K-WAP staff will attend the National Association for State Community Services Programs training.

#### **Second Quarter (October — December):**

- Kansas Weatherization Directors' Meeting November 20, 2014
- On-site T&TA, as needed
- Kansas LSW Training for crews and contractors TBA

A Weatherization Directors' meeting will be held to focus on common field issues and solutions, common monitoring findings, and consensus building on how to enhance field inspections and work quality. Training will be provided for crews and contractors in lead-based paint safe weatherization practices and additional Health and Safety issues.

#### **Third Quarter (January — March):**

- NASCSP Winter Conference TBA
- Kansas Weatherization Directors' Meeting February 5, 2015
- On-site T&TA, as needed

The K-WAP Director and the Fiscal Officer will attend the NASCSP Winter Conference.

#### **Fourth Quarter (April — June):**

- Kansas Weatherization Directors' Meeting May 15, 2015
- Kansas State Plan Meeting May 15, 2015
- On-site T&TA, as needed

## **V.9 ENERGY CRISIS AND DISASTER RESPONSE PLAN**

The K-WAP allows a great deal of flexibility in its program under normal operation. An energy crisis, such as the one caused by recent increases in fuel costs, offers subgrantees the opportunity to use existing procedures to prioritize weatherization for households with no heating unit, households with unusually high energy costs, households with certain health and safety problems, or households with other emergencies such as extremely leaky homes.

During an energy crisis, K-WAP subgrantees may consider any household an emergency that has no working furnace or whose furnace is tested unsafe, or that demonstrates its energy costs constitute a high burden, or whose energy consumption is unusually high. Classification as an emergency enables a subgrantee to place that household at the top of the list for weatherization services.

As an emergency, the K-WAP subgrantee may make emergency repairs, including furnace replacement and repair of serious air leaks, and schedule other needed repairs at a later date. If at all possible, the subgrantee should complete the emergency units within the current program year. If it is not possible, however, the state will work with the subgrantee agency to assure the work can be completed during the following program year.

The state will allow subgrantees to purchase or lease temporary heating sources for use in energy crises. Subgrantees may use program funds for storage of the units and to increase liability insurance, as needed. Subgrantees will be responsible for maintaining the safety of the units.

As needed, the state may redirect funds from T&TA to provide additional allowable measures required to meet an energy crisis.

### **Kansas General Disaster Response Plan (Reference WPN 12-7):**

**Policy:** For weatherization purposes, a disaster is determined by a Presidential or Gubernatorial order declaring either a Federal or State Emergency. The crisis may be naturally occurring or man-made and generally will involve at least three phases: the crisis itself, the clean-up, and the rebuilding of the affected area. It is not uncommon for weatherization work to be suspended during the crisis and early clean-up phase until basic community services such as electricity, water, food and medical supply activities can be returned closer to normal.

The disaster time period may be from several days to a month or more and this period can have a critical impact on program operations.

This “General Disaster Response Plan” addresses the needs of the affected low-income clients and also takes into consideration the limited funds available in weatherization.

### **Procedures:**

1. **General Disaster Response Plan:** A General Disaster Response Plan will include:
  - a. contact and coordination with the appropriate disaster site leadership in charge to explain the role and resources that weatherization can provide;
  - b. availability and use of grantee and/or local agency staff, equipment and resources;

- c. consideration for the preservation of local agency (subgrantee) weatherization files, records, materials and equipment if they would be at risk.
2. **Notify A DOE Project Officer As Soon As Possible Regarding the Disaster:** Contact DOE staff by telephone, then provide a follow-up in writing (email is fine). Discussion by telephone allows DOE staff to explore ideas and options that may be available using weatherization resources and begin to explore whether the currently approved state plan adequately addresses the circumstances and possible proposed actions.
  3. **Assess Circumstances And Determine The Need To Develop And Submit An Event-Specific Disaster Response Plan:** Assess the needs of the affected subgrantees, and identify potential assistance available from other subgrantees in the network that may be willing to volunteer assistance.

Verbal agreements within the scope of the grant can be made to clarify details and expedite early action during the disaster and early stages of clean-up. The grantee shall follow-up with DOE staff on verbal understandings and agreements in writing (email) promptly afterward.

### **Event Specific Disaster Response Plan**

The “Event Specific Disaster Response Plan” will provide as much of the applicable reporting element information upfront as available and establish the estimated timeframe and end-date for DOE assistance.

It will clearly specify when the reporting will be provided to DOE as part of the proposed disaster plan (i.e., 30 days after the approved end-date for DOE weatherization assistance.) If an extension of the end-date is requested, the request will indicate the circumstances and provide updated reporting information.

### **Examples of Eligible Activities:**

- a. **Reweathering** - The Program Regulation allows any previously weatherized home “damaged by fire, flood or act of God” to be re-weatherized, without regard to date of weatherization, where local authorities deem the dwelling salvageable as well as habitable and if the damage to materials is not covered by insurance or some other form of compensation.
- b. **Health and Safety** - In the normal course of weatherization or re-weatherization, the cost of eliminating health and safety hazards, elimination of which is necessary before the installation of weatherization materials or the result of weatherization activities, is allowable. To the extent that the services are in support of eligible weatherization work, such expenditure would be allowable. For example, debris removal at a dwelling unit so that the unit can be weatherized would be an allowable cost. Please note that the average cost per dwelling unit limit continues to apply.
- c. **Incidental Repairs** – In the normal course of weatherization or re-weatherization, the cost of incidental repair costs to protect or aid in the installation of weatherization materials and are part of the total allowable expenditure. All incidental repair costs shall be documented as such in the client files and be tied to an energy conservation measure or group of measures. The overall cost must receive an SIR of 1+. Incidental repair costs may not exceed a maximum of \$500 per dwelling unit for labor and materials.

The subgrantees may exceed the \$500 limit, if certain requirements are met, by submitting a written waiver request to the KHRC/WAP staff for written approval. The written request must include the total amount to be expended and must include the REM/Design audit to insure that the overall group of measures receives and SIR of 1+. The written request for a waiver can be submitted by e-mail as long as all pertinent information is submitted to KHRC/WAP staff for approval.

- d. Protection of DOE investment- Weatherization personnel can be paid from DOE funds to perform functions related to protecting the DOE investment. Such activities include: securing weatherization materials, tools, equipment, weatherization vehicles, or protection of local agency weatherization files, records and the like during the initial phase of the disaster response. Using DOE funds to pay for weatherization personnel to perform relief work in the community as a result of a disaster is not allowable.

Local agencies may use weatherization vehicles and/or equipment to help assist in disaster relief provided the WAP is reimbursed according to the DOE Financial Assistance Regulations 10 CFR Part 600.

- e. Priority – It would be permissible to consider households located in the disaster area, as a priority as long as the households are eligible and meet one of the priorities established in regulation and are free and clear of any insurance claim or other form of compensation resulting from damage incurred from the disaster. Inclusion of these households as a priority must be outlined in the Disaster Response Plan.

### **Summary Statement**

**Planning and Reporting Elements:** If the General Disaster Response Plan is utilized and/or an Event-Specific Disaster Response Plan is approved, the grantee will report to the DOE Project Officer on the use of Weatherization resources and the DOE grant will include, at a minimum:

- a. A description of the disaster including the counties/local weatherization agencies affected. It will include the state emergency management website that tracks disasters;
- b. A description of the types of DOE weatherization assistance, the scope and costs of weatherization activities performed.
- c. The timeframe of the disaster. The date it started, when it was declared a disaster, and the (proposed or approved) end-date for DOE weatherization assistance;
- d. An explanation of how disaster-related costs are being tracked by type of activity and summary of DOE disaster-related expenditures and programmatic reporting information. For example, the number of homes and persons assisted under the Disaster Response Plan provisions;
- e. Any other applicable items as determined by KHRC or DOE.

Reporting will be sent to the DOE Project Officer by email.

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**BEFORE THE STATE CORPORATION COMMISSION  
OF THE STATE OF KANSAS**

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**DIRECT TESTIMONY  
OF  
RALPH NIGRO  
APPLIED ENERGY GROUP, INC**

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**DOCKET NO. \_\_\_\_\_**

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**I. INTRODUCTION**

***A. Witness Qualifications***

**Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

A. Ralph Nigro, 5301 Limestone Rd, Suite 222, Wilmington, DE 19808.

**Q. BY WHOM AND IN WHAT CAPACITY ARE YOU EMPLOYED?**

A. Applied Energy Group, Inc. (AEG). My position is Senior Vice President.

**Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND BUSINESS EXPERIENCE.**

A. I have a B.S. in Mechanical Engineering from the University of Delaware. I have an M.A. in Energy and Environmental Policy from the University of Delaware. I have over 34 years of experience in

1 the energy industry. Prior to coming to AEG in 1995 I was with  
2 Delmarva Power & Light Company from 1980-1995 in several  
3 different positions in generation engineering, research and  
4 development, and business subsidiaries. Since joining AEG in  
5 1995 I have managed the Delaware office where we provide a  
6 variety of consulting services to utilities, government clients, and  
7 businesses. I am also the co-director of the University of  
8 Delaware's Industrial Assessment Center, which is a U.S. DOE  
9 funded center that prepares engineering students for work in the  
10 energy industry and provides industrial energy assessments  
11 throughout the mid-Atlantic region. I am a member of the American  
12 Society of Mechanical Engineering, Association of Energy  
13 Engineers, and a registered Professional Engineer in Delaware.

14 ***B. Purpose of Testimony***

15 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

16 A. I will provide support for Westar's proposed Small Business  
17 Lighting Program, the Home Energy Analysis Program, and the  
18 Targeted Energy Efficiency Program. I will also discuss the cost-  
19 effectiveness analysis results related to all three programs  
20 proposed by Westar – the Small Business Lighting program, the  
21 Home Energy Analysis program, and the Targeted Energy  
22 Efficiency program. My testimony also includes a description of lost  
23 margin recovery mechanism that Westar proposes to use.

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**C. Attachments**

**Q. ARE YOU SPONSORING ANY ATTACHMENTS WITH YOUR TESTIMONY?**

A. Yes. Exhibit AEG-1 contains AEG's Lost Margin Recovery White Paper.

**II. SUPPORT FOR WESTAR'S PROPOSED SMALL BUSINESS LIGHTING PROGRAM**

**Q. PLEASE DESCRIBE WESTAR'S PROPOSAL FOR THE SMALL BUSINESS LIGHTING PROGRAM.**

A. Westar is seeking approval for a Small Business Lighting (SBL) program. The program will be implemented by Franklin Energy and will primarily target lighting end-uses for small commercial customers as defined by Westar's Small General Service (SGS) rate. The program will also offer measures for electric hot water end-uses in addition to lighting.

**Q. WHAT ARE THE GENERAL ADVANTAGES OF COMMERCIAL LIGHTING PROGRAMS?**

A. Lighting is a major consumer of electricity in commercial buildings. According to the Commercial Buildings Energy Consumption Survey (CBECS) conducted by the U.S. Energy Information Administration (EIA), lighting accounts for nearly 40 percent of the total electricity consumed in commercial buildings, more than any other commercial end use. As such, commercial lighting presents

1 significant opportunities for energy savings at a lower cost  
2 compared to other end uses. Furthermore, lighting programs are  
3 particularly attractive to commercial customers due to substantial  
4 bill savings associated with the upgrades.

5 **Q. WHAT ARE THE ADVANTAGES OF DIRECT INSTALL**  
6 **PROGRAMS?**

7 A. Small businesses are considered “hard to reach.” Small business  
8 owners typically do not have the time or expertise to identify and  
9 manage energy efficiency projects. Direct install programs are  
10 used to remove these barriers for small business that would  
11 otherwise not participate in efficiency programs. This is  
12 accomplished by providing “one-stop shopping” through pre-  
13 qualified contractors installing pre-qualified measures.

14 In addition, the incentive is deducted from the proposed cost  
15 of the job, and the business owner does not have to apply  
16 separately for a rebate. Another advantage to direct install  
17 programs is that measures will be directly installed at the customer  
18 facility, which allows more verifiable program impacts.

19 **III. BENEFIT-COST ANALYSIS**

20 **Q. DID AEG PERFORM ANY BENEFIT-COST ANALYSIS FOR**  
21 **WESTAR’S PROGRAMS?**

22 A. Yes. AEG performed a benefit-cost analysis of the following  
23 programs to assess their cost effectiveness: the Small Business

1           Lighting Program, the Home Energy Analysis Program, and the  
2           Targeted Energy Efficiency Program.

3   **Q.   PLEASE   DESCRIBE   THE   BENEFIT-COST   ANALYSIS**  
4   **PERFORMED FOR WESTAR’S PROGRAMS.**

5   A.   The cost-effectiveness analysis consisted of analyzing the program  
6           utilizing five standard cost-effectiveness tests: Total Resource Cost  
7           Test (TRC), Societal Cost Test (SCT), Utility Cost Test (UCT),  
8           Participant Cost Test (PCT), and Ratepayer Impact Measure (RIM).  
9           These tests are standardized in the California Standard Practice  
10          Manual and are accepted as the energy efficiency industry  
11          standard.<sup>1</sup> Each test measures the net cost of a demand-side  
12          management program as a resource option. Costs and benefits of  
13          the program are dependent on the chosen test.

14                 The TRC test, which is generally utilized to determine if a  
15                 program is cost-effective, represents the combined program effects  
16                 on both participant and non-participant utility customers. The  
17                 benefits calculated in the TRC test are the avoided supply cost.  
18                 Avoided supply costs reflect the marginal reduction in transmission,  
19                 distribution, commodity and capacity costs as a result of energy  
20                 usage reduction. The costs in the TRC test are the program costs  
21                 paid by the utility and the participants plus the increase in supply

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<sup>1</sup> California Public Utility Commission, *California Standard Practice Manual – Economic Analysis of Demand-Side Programs and Projects*. October 2001.  
[http://www.cpuc.ca.gov/NR/rdonlyres/004ABF9D-027C-4BE1-9AE1-CE56ADF8DADC/0/CPUC\\_STANDARD\\_PRACTICE\\_MANUAL.pdf](http://www.cpuc.ca.gov/NR/rdonlyres/004ABF9D-027C-4BE1-9AE1-CE56ADF8DADC/0/CPUC_STANDARD_PRACTICE_MANUAL.pdf)

1 costs for periods in which demand is increased. All equipment  
2 costs, operation and maintenance, costs of removal and  
3 administration costs are included in the TRC test. Specific costs  
4 and benefits of each test are described in the California Standard  
5 Practice Manual.

6 The SCT is a variant of the TRC, which includes additional  
7 non-energy benefits to society. No such benefits were included in  
8 the benefit-cost analysis, leaving the results of the TRC and SCT  
9 identical.

10 **Q. WHAT DATA DID AEG UTILIZE TO PERFORM THE COST-**  
11 **EFFECTIVENESS ANALYSIS?**

12 A. All data utilized in the cost-effectiveness analysis was provided to  
13 AEG by Westar. Data for the Home Energy Analysis Program was  
14 developed by Franklin Energy, Westar's contractor for delivery of  
15 the HEA program, and was provided to AEG through Westar.  
16 Data inputs (program costs, program energy savings, etc.) were  
17 vetted and discussed to ensure the proper information was being  
18 utilized to analyze the program.

19 **Q. WHAT MODEL WAS UTILIZED TO PERFORM THE ANALYSIS?**

20 A. AEG used Ben-Cost to provide state-of-the-art cost-effectiveness  
21 analysis of the individual measures. Ben-Cost is an open-source  
22 cost-effectiveness model that is utilized in multiple states  
23 throughout the country. Ben-Cost is a fully customizable cost-

1 effectiveness modeling platform that enabled AEG to evaluate the  
2 costs, benefits, and risks of DSM programs and services using  
3 utility-specific measures and programs.

4 ***A. Small Business Lighting Program***

5 **Q. HOW WAS THE PROSPECTIVE COST EFFECTIVENESS OF**  
6 **THE PROGRAM ASSESSED?**

7 A. The prospective cost-effectiveness of the SBL program was  
8 assessed based on the California Standard Practices Manual. The  
9 analysis enables the total lifecycle costs and benefits of the  
10 program to be compared in terms of present value. Program costs  
11 and benefits were forecasted using inputs specific to the SBL  
12 program and Westar's service territory.

13 **Q. WHAT ASSUMPTIONS WERE USED TO DEVELOP THE**  
14 **ANALYSIS?**

15 A. The cost-effectiveness analysis was conducted using the proposed  
16 participation rates, measures, delivery costs and incentive levels  
17 provided by Franklin Energy. Utility administrative costs and  
18 avoided costs were provided by Westar. Measure characteristics  
19 such as annual savings, incremental cost and useful life are based  
20 on technical reference manuals from several sources including the  
21 California DEER database, the Illinois Technical Reference Manual  
22 and similar programs in Colorado.

1 **Q. WHAT ARE THE OBJECTIVES AND COSTS OF THE**  
2 **PROGRAM?**

3 A. The objective of the voluntary SBL program is to increase the  
4 electric energy efficiency of SGS customers in Westar's service  
5 territory through increased efficiency awareness, education and the  
6 installation of efficient lighting measures. The table below  
7 summarizes the estimated SBL program budget in each cost  
8 category for the first three years.

9 **Table 1. Estimated Budget for SBL Program**

<b>Cost Categories</b>	<b>Program Year 1</b>	<b>Program Year 2</b>	<b>Program Year 3</b>	<b>Total</b>
Start-up Costs	\$121,112	-	-	\$121,112
Total Program Management Costs	\$701,590	\$781,236	\$877,791	\$2,360,617
Total Customer Incentive Costs	\$924,910	\$1,143,764	\$1,372,209	\$3,440,883
Total SBL Program Costs	\$1,747,612	\$1,925,000	\$2,250,000	\$5,922,612

10 **Q. HOW ARE ENERGY INDEPENDENCE AND SECURITY ACT**  
11 **(EISA) REGULATIONS INCORPORATED INTO THE SAVINGS**  
12 **FORECAST?**

13 A. EISA mandated higher efficiency standards for many general  
14 purpose lighting technologies, including the familiar general  
15 purpose incandescent bulbs and fluorescent lamps and ballasts.  
16 The measure-level savings proposed by Franklin already include  
17 EISA-prescribed phase-outs for general purpose incandescent  
18 lighting. T12 baselines were utilized for two linear fluorescent

1 measures: replacement of T12 with High Performance T8 lighting,  
2 and replacement of T12 with low wattage T8 lighting. This was  
3 done for the following reasons:

- 4 • First, small businesses still use large numbers of T12  
5 fluorescent lamps and fixtures.
- 6 • Second, suppliers have indicated that there is still a large  
7 remaining stock of non-compliant T12 lamps and  
8 replacements for burnt out lamps are expected to be  
9 available for several years.
- 10 • Third, EISA-compliant T12 lamps are now available and will  
11 extend the life of T12 installations even further.

12 The T12 baseline values also include a mix of the following:  
13 F34T12 EE Mag ballast, F40T12 EE Mag ballast, F40T12 Mag  
14 ballast and F32T8 Electronic ballast wattages to reduce the  
15 baseline wattages of the systems and to account for the shift away  
16 from magnetic to electronic ballasts, as well as the shift to EISA-  
17 compliant T12 lamps.

18 **Q. WHAT WERE THE RESULTS OF THE BENEFIT-COST**  
19 **ANALYSIS FOR THE SBL PROGRAM?**

20 A. The results of the benefit cost analysis for the SBL program are  
21 detailed in the following table:

22 **Table 2. SBL Program Benefit-Cost Results**

Test	Benefit-Cost Ratio
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TRC	1.14
SCT	1.14
UCT	1.11
PCT	7.59
RIM	0.31

1

2 **Q. IS THE SBL PROGRAM CONSIDERED COST EFFECTIVE?**

3 A. Yes. A ratio of 1.0 or greater indicates the program is cost-effective  
4 and the benefits are greater than the costs. The cost-effectiveness  
5 analysis of the SBL program results in a benefit-cost ratio of 1.14  
6 using the total resource cost (TRC) test using a Net to Gross (NTG)  
7 ratio of 90%.

8 **Q. WHAT IS THE SIGNIFICANCE OF THE RIM TEST RESULTS?**

9 A. The RIM test assesses the program costs and benefits from the  
10 perspective of rate payers, and possible implications for rate  
11 changes. The definition of the test basically includes the net  
12 present value of avoided costs as benefits, and the net present  
13 values of program costs and lost revenues as costs. Retail rates  
14 are higher than avoided costs, and therefore lost revenues from  
15 energy efficiency programs nearly always exceed avoided  
16 costs. As a result, the RIM test benefit-cost ratio only exceeds 1.0  
17 under very specific circumstances. It is common for the RIM test  
18 benefit-cost ratio to be less than 1.0 for efficiency programs, even  
19 when all other tests yield benefit-cost ratios greater than 1.0. A RIM

1 test result of less than 1.0 indicates that average rates may  
2 increase (all other things being equal), but it does not indicate the  
3 impact on average bills, which may decrease. As with all of the  
4 benefit-cost tests, the RIM test results should be evaluated in the  
5 context of the other test results.

6 ***B. Home Energy Analysis Program***

7 **Q. WHAT ARE THE RESULTS OF THE BENEFIT-COST TESTS**  
8 **WHEN APPLIED TO THE HOME ENERGY ANALYSIS (HEA)**  
9 **PROGRAM?**

10 A. The results of the cost-effectiveness analyses are summarized in  
11 the following table:

12 **Table 3. HEA Program Benefit-Cost Results**

Test	Benefit-Cost Ratio
TRC	0.76
SCT	0.76
UCT	0.94
PCT	13.94
RIM	0.21

13 **Q. HOW SHOULD THE RESULTS BE INTERPRETED?**

14 A. The benefit-cost ratio is the program benefits divided by the  
15 program costs in net present value. A ratio of 1.0 or greater  
16 indicates the program is cost-effective and the benefits are greater  
17 than the costs. A benefit-cost ratio less than one indicates the

1 program costs are greater than the program benefits. Also,  
2 typically benefit-cost ratios vary by cost-effectiveness test. In this  
3 case, the TRC and UCT are identical due to the program structure.

4 **Q. WHY DO THE RESULTS OF SOME TESTS FALL BELOW 1.0?**

5 A. The program is structured as an educational program, and the  
6 primary intended benefit of the program is information provided to  
7 customers about how they use energy and to help identify  
8 opportunities for upgrades and other actions that can be taken by  
9 homeowners. The program also provides a package of direct  
10 install measures that provide some energy savings, although this is  
11 not intended to be the primary purpose of the program. Because  
12 Westar pays for the majority of the program costs, the total costs  
13 are high in relation to the savings provided by the direct install  
14 measures. This causes the TRC, UCT, and RIM to have a benefit-  
15 cost ratio below 1.0. The PCT is above 1.0 because Westar covers  
16 the majority of audit costs and provides measures free to the  
17 participant.

18 **Q. WHAT ADDITIONAL BENEFITS DOES THE PROGRAM**  
19 **PROVIDE THAT ARE NOT CAPTURED IN THE COST-**  
20 **EFFECTIVENESS TESTS?**

21 A. Some of the audits are expected to yield projects by homeowners  
22 that will reduce electricity consumption, and may also reduce  
23 natural gas usage, increase home comfort, provide potential

1 increased health and safety benefits, and provide environmental  
2 benefits. None of these benefits are captured in the benefit-cost  
3 ratios.

4 **Q. ARE SIMILAR PROGRAMS TYPICALLY APPROVED FOR  
5 IMPLEMENTATION?**

6 A. Yes. In general, education-based programs are not required to  
7 have a benefit-cost ratio greater than 1.0 since their intent is to  
8 encourage customers to take additional steps towards energy  
9 efficiency by providing information.

10 ***C. Targeted Energy Efficiency Program***

11 **Q. WHAT ARE THE RESULTS OF THE BENEFIT-COST TESTS  
12 WHEN APPLIED TO THE TARGETED ENERGY EFFICIENCY  
13 (TARGETED EE) PROGRAM?**

14 A. The results of the cost-effectiveness analyses are summarized in  
15 the following table:

16 **Table 4. Targeted EE Program Benefit-Cost Results**

Test	Benefit-Cost Ratio
TRC	0.20
SCT	0.20
UCT	0.20
PCT	N/A
RIM	0.12

17 **Q. HOW SHOULD THE RESULTS BE INTERPRETED?**

1 A. The benefit-cost ratio is the program benefits divided by the  
2 program costs in net present value. A ratio of 1.0 or greater  
3 indicates the program is cost-effective and the benefits are greater  
4 than the costs. A benefit-cost ratio less than one indicates the  
5 program costs are greater than the program benefits. Also,  
6 typically benefit-cost ratios vary by cost-effectiveness test. In this  
7 case, the TRC and UCT are identical due to the program structure.

8 **Q. WHY DO THE RESULTS OF EACH TEST FALL BELOW 1.0?**

9 A. The structure of the Targeted EE Program dictates the low benefit-  
10 cost ratios. Because this program offers energy efficiency services  
11 and measures at no cost to the customer, all costs associated with  
12 each project (including full measure cost and cost of installation,  
13 administrative costs, etc) are accounted for in the cost-  
14 effectiveness tests. In standard rebate-based programs this is not  
15 the case because customers traditionally pay a portion of the  
16 measure cost and receive a rebate. By including all costs in the  
17 cost-effectiveness tests the cost portion of the ratio is higher in  
18 comparison to the benefit portion.

19 **Q. WHAT ADDITIONAL BENEFITS DOES THE PROGRAM  
20 PROVIDE THAT ARE NOT CAPTURED IN THE COST-  
21 EFFECTIVENESS TESTS?**

22 A. The program provides benefits to participants besides those  
23 captured in the cost-effectiveness tests. The additional benefits

1 include increased home comfort, potential increased health and  
2 safety benefits, reduction of arrearage, and environmental benefits.

3 None of these benefits are captured in the benefit-cost ratios.

4 **Q. ARE SIMILAR PROGRAMS TYPICALLY APPROVED FOR**  
5 **IMPLEMENTATION?**

6 A. Yes. In general, income-qualified weatherization programs are not  
7 required to have a benefit-cost ratio greater than 1.0. This is due to  
8 the additional benefits previously mentioned as well as energy  
9 benefits to the customer.

10 **Q. IS THE PROPOSED PROGRAM IN THE PUBLIC INTEREST?**

11 A. Yes. These types of programs offer access to income qualified  
12 customers who would otherwise be unable to participate in  
13 standard rebate programs. This program allows Westar customers  
14 to have access to energy efficiency programs regardless of income  
15 level. Low income customers tend to spend a higher percentage of  
16 their income on energy, placing a larger burden on their personal  
17 resources, as well as on other community services. The proposed  
18 program helps to reduce the burden on other community services  
19 as a result of reducing participants' utility bills. This benefits other  
20 Westar customers, and the general public as further explained in  
21 Mr. Unekis' testimony.

22 **IV. LOST MARGIN RECOVERY**

1 **Q. WHAT PROGRAMS ARE INCLUDED IN THE PROPOSED LOST**  
2 **MARGIN RECOVERY MECHANISM?**

3 A. Westar proposes including the Small Business Lighting Program  
4 and the Targeted EE in the lost margin recovery mechanism.

5 **Q. HOW WILL THE PROGRAMS AFFECT WESTAR?**

6 A. The energy and demand savings achieved through the programs  
7 will reduce Westar's revenues. As a result, Westar is seeking  
8 approval to recover lost revenue associated with the program  
9 through a lost revenue adjustment mechanism (LRAM).

10 **Q. PLEASE DESCRIBE THE PROPOSED LOST MARGIN**  
11 **RECOVERY MECHANISM FOR THE PROGRAMS.**

12 A. Westar will calculate the lost revenue associated with the programs  
13 using forecasted energy savings and approved retail rates. Westar  
14 will forecast kWh savings based on proposed program participation  
15 and deemed measure savings. The savings forecast is multiplied  
16 by the non-fuel portion of the currently approved rates to determine  
17 lost revenue. Lost revenues would be added to the existing Energy  
18 Efficiency Rider (EER).

19 At the end of each program year, the rider will be adjusted to  
20 true up the actual versus expected kWh savings and to determine  
21 the amount of over- or under-collected lost revenue. Over- or  
22 under-reported lost revenues will be carried forward into the  
23 adjustment for the following year.

1 **Q. IS THERE ANY PRECEDENT FOR SUCH A MECHANISM IN THE**  
2 **STATE OF KANSAS?**

3 A. Yes. The KCC approved a similar lost revenue recovery  
4 mechanism for Westar's SimpleSavings program in January 2011,  
5 which is similar to the mechanism proposed here.

6 **Q. WHAT JUSTIFICATION CAN WESTAR PROVIDE FOR THE**  
7 **PROPOSED LOST MARGIN RECOVERY MECHANISM?**

8 A. Westar's revenues are based on actual fixed and variable costs of  
9 providing service, and expected electricity sales. Variable costs are  
10 tied to the amount of energy sold but fixed costs are not. Energy  
11 efficiency programs reduce electricity sales, and therefore reduce  
12 the amount of fixed cost recovery.

13 Key components of the SBL and Targeted EE programs  
14 make them appropriate for lost margin recovery. Detailed  
15 information about the specific measures installed and the  
16 contractors performing the work is tracked for both programs,  
17 making savings values highly verifiable. In addition, the Targeted  
18 EE program benefits low-income customers, which fits the criteria  
19 identified by the Commission in previous rulings.

20 **Q. HOW WILL WESTAR ENSURE THAT PROGRAM SAVINGS ARE**  
21 **VERIFIABLE?**

22 A. The implementer for the SBL program (Franklin Energy) provides  
23 quality assurance services to track and verify projects. This

1 ensures that the projects and associated savings entered into the  
2 tracking system are accurately measured. The tracking system  
3 also provides the program and project information necessary to  
4 perform independent evaluation, measurement and verification of  
5 savings. Program participation will be tracked independently of  
6 other programs to ensure impacts are transparent and verifiable.

7 Savings for the Targeted EE Program are verifiable based  
8 on the results of the home energy audit. Each participant receives a  
9 customized home energy audit report that identifies specific  
10 measures and savings values. Measures are installed directly by  
11 partner contractors. These components of the program ensure that  
12 participation is tracked with sufficient detail necessary to perform  
13 independent evaluation, measurement and verification of savings.

14 **Q. WHAT SAFEGUARDS ARE IN PLACE TO ENSURE THAT LOST**  
15 **MARGINS ARE NOT OVERSTATED?**

16 A. Westar proposes to incorporate a true-up process in determining  
17 the lost revenue associated with the programs. At the end of each  
18 program year the actual program savings will be compared to the  
19 expected program savings to determine any over- or under-  
20 collected lost revenue, which will be carried forward into the  
21 following year.

22 **Q. HAS WESTAR CONSIDERED ANY ALTERNATIVES TO THE**  
23 **PROPOSED LOST REVENUE RECOVERY MECHANISM?**

1 A. Yes. Westar reviewed decoupling as the primary alternative.  
2 Decoupling is a rate adjustment mechanism that attempts to  
3 eliminate the throughput incentive by severing the link between  
4 sales and revenue. This approach allows utilities to recover lost  
5 revenues as part of broader rate case proceedings rather than a  
6 separate rider.

7 **Q. IS THE PROPOSED MECHANISM PREFERABLE TO**  
8 **ALTERNATIVE METHODS?**

9 A. Yes. Decoupling would involve an extended ratemaking process  
10 resulting in a substantial overhaul of Westar rates. Westar does  
11 not believe that this would be appropriate given the targeted nature  
12 of the proposed programs. The proposed LRAM is based on a  
13 previously approved mechanism, and allows both ratepayers and  
14 the utility to take advantage of the program's benefits without  
15 requiring an entirely new rate structure.

16 **Q. WHY IS IT NECESSARY TO RECOVER LOST REVENUES**  
17 **BASED ON PROJECTED RATHER THAN HISTORICAL**  
18 **SAVINGS?**

19 A. Westar is proposing to recover lost revenues on a current basis  
20 using projected savings estimates. Recovering lost revenues in  
21 this way ensures that program expenditures are in-line with  
22 recovered revenues. Westar believes that the proposed true-up

1 process appropriately mitigates the potential for overstating lost  
2 revenues associated with the program.

3 **Q. HOW DOES WESTAR'S PROPOSED LOST MARGIN**  
4 **RECOVERY MECHANISM COMPARE TO OTHER STATES?**

5 A. Public utility commissions in other states have approved lost margin  
6 recovery mechanisms similar to the mechanism being proposed  
7 here. As of 2012, lost revenue adjustment mechanisms are allowed  
8 in 13 states. States with similar mechanisms include Kentucky,  
9 Ohio and Oklahoma, among others. For example, the Kentucky  
10 Public Service Commission considers lost revenue recovery on a  
11 case-by-case basis. Similar to the proposed mechanism, Kentucky  
12 utilities calculate lost revenues using the fixed cost rate and  
13 estimated energy savings. Ohio and Oklahoma allow collection of  
14 projected lost revenues through a DSM rider, subject to a true-up  
15 process. Although there is not a single standardized lost revenue  
16 adjustment mechanism, they have characteristics in common. More  
17 information on the lost margin recovery mechanisms in other states  
18 is provided in the white paper submitted as Exhibit AEG-1.

19 **Q. THANK YOU.**

## **Westar Energy Lost Margin Recovery**

### **1. Mechanisms and Recommendations**

Westar Energy is seeking approval for a recovery mechanism for lost revenues associated with its Small Business Lighting (SBL) and Targeted Energy Efficiency (TEEP) programs. The recovery mechanism will take the form of a lost revenue adjustment. The Kansas Corporation Commission (KCC) has previously approved a similar mechanism for Westar's SimpleSavings loan program.

### **2. Energy Efficiency Program Cost Recovery and Incentives**

Energy efficiency program costs are divided into two categories:

- **Direct program costs**, including rebates to participants, delivery, marketing, administrative and evaluation costs.
- **Lost revenues**, in particular the marginal revenue loss associated with fixed costs that would normally be recovered through volumetric rates. Fixed cost recovery is usually tied to volumetric consumption charges based on forecast sales.

Recovering direct program costs and lost revenues remove two disincentives to operating energy efficiency programs. Direct cost recovery is a minimum requirement for most programs operated by investor-owned utilities. If direct program costs are not recovered, the utility's earnings are reduced on a dollar-for-dollar basis. If lost margins are not recovered, reduced sales potentially lead to inadequate coverage of fixed costs and reduced return on equity.

In addition to removing disincentives, there are other, separate mechanisms intended to incentivize energy efficiency programs. Utilities earn a return on capital investment, which tends to favor investment in supply-side infrastructure rather than end-use efficiency. Performance incentives are intended to place energy efficiency and capital investments on a similar footing by encouraging investment in efficiency.

The available mechanisms for program cost recovery, lost margin recovery and incentives are summarized briefly below:

- **Direct Program Cost Recovery Mechanisms**
  - Rate case recovery
  - Systems benefits charges, tariff riders or other surcharges
  - Capitalization

- **Lost Margin Recovery Mechanisms**
  - Decoupling
  - Lost revenue adjustment mechanisms (LRAMs)
  
- **Performance Incentive Mechanisms**
  - Performance target incentives
  - Shared savings incentives
  - Rate of return incentives

This summary focuses on lost margin recovery. No changes in the structure of the existing program cost recovery mechanism are contemplated at this time and incentive mechanisms are not being considered as part of the Small Business Lighting or Targeted Energy Efficiency program filings.

### 3. Lost Margin Recovery Mechanisms

Under traditional rate making, utilities forecast sales and costs (fixed and variable) and then calculate volumetric rates. Since utility profits are tied mainly to the fixed costs of capital investments, but are recovered through volumetric rates, the utility has a *throughput incentive*, i.e., increased sales also increase revenues and profitability. Since energy efficiency programs reduce sales and revenues, profitability also decreases, creating a disincentive to energy efficiency programs. Lost margin recovery mechanisms are designed to mitigate the reduction in marginal utility revenues caused by energy efficiency programs. There are two types of lost margin recovery mechanisms: decoupling and lost revenue adjustment mechanisms (LRAMs).

According to a recent study published in 2012 by the Natural Resources Defense Council (NRDC)<sup>1</sup>, decoupling has been adopted for electric utilities in 15 states and for gas utilities in 21 states. Decoupling essentially stabilizes utility revenues by severing the link between revenues and actual sales. With decoupling, the utility forecasts expected sales as part of its revenue requirements. Periodic “true ups” are required with this type of lost margin recovery mechanism to account for deviations between forecast and actual sales. These deviations can be caused by weather, economic conditions, efficiency programs or other factors. Rates are adjusted up or down to ensure that the utility collects revenues sufficient to cover fixed costs. Typically, the fixed costs included in decoupling mechanisms are associated with local delivery costs rather than generation. Implementation of decoupling requires re-designing rates, and is applied across the rate base. Decoupling is not used to target lost margin recovery attributable to individual programs.

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<sup>1</sup> A Decade of Decoupling for US Energy Utilities: Rate Impacts, Designs, and Observations. Graceful Systems, LLC. December 2012.

LRAMs do not attempt to totally sever revenues from sales in the same way as decoupling. Instead, LRAMs are used to determine the amount of lost revenue that occurs due to energy efficiency programs. As of July 2012, LRAMs are allowed in 13 states, including Kansas<sup>2</sup>. In general, LRAMs use estimated savings from specific measures and programs to calculate lost revenues. The lost revenues are then recovered through rate adjustments. Since accurate savings estimates are a key factor in the adjustments, tracking and verification are important to effective implementation of LRAMs. LRAMs can be applied incrementally as individual programs are implemented.

For example, in Missouri, Kansas City Power & Light's Greater Missouri Operations (KCP&L-GMO) is allowed to recover lost revenue annually in its base rates.<sup>3</sup> Lost revenues (called Net Shared Benefits in this case) are the net present value of avoided energy, avoided capacity, transmission and distribution, and environmental compliance costs attributable to initial estimated energy efficiency program savings less the present value of program costs. Calculated Net Shared Benefits are annualized over the three-year program cycle, and KCP&L is allowed to recover 90% of the annualized amount in its rates initially. At the end of the three-year program cycle, a true-up is performed based on evaluated savings. Any differences between the initial stipulated amount and actual lost revenues are determined in a future general rate case. In addition to lost revenues, KCP&L is also allowed to collect an incentive for achieving program targets.

LRAMs in other states share similar characteristics, including definitions of the constituents of lost revenues, emphasis on evaluated savings and true-up mechanisms. Several states where LRAMs are currently in use by electric utilities are summarized below:

<b>State</b>	<b>Authority</b>	<b>Description</b>
Alabama	Rate Stabilization and Equalization (RSE) Mechanism	In effect since 1982 for Alabama Power, RSE allows annual adjustments to base revenues and rates to maintain allowed return on equity within a deadband. Limits upward adjustments to 5% over one year, 4% over two consecutive years. Scope is broader than typical LRAM since it applies to all rates, but can take lost revenues into account.

<sup>2</sup> State Electric Efficiency Regulatory Frameworks. The Edison Foundation, Institute for Electric Efficiency. July 2012.

<sup>3</sup> Lost revenue is described as "Net Shared Benefits" by the Missouri Public Service Commission in Case No. EO-2012-0009. The exact calculation mechanism is described in detail in the Stipulation and Agreement resolving this case.

Arkansas	Order No. 14 Docket 08-137-U	Electric and gas utilities in Arkansas jointly filed a proposed “Lost Contribution to Fixed Costs” (LCFC). Arkansas PSC issued an order approving the joint filing with modifications. LCFC is calculated by multiplying reduction in sales volumes from approved programs by “Lost Contribution Rate” (LCR). LCR would be currently approved base rate revenues, less customer charge revenues average per kWh. The PSC modified the utilities’ proposal by requiring the use of a detailed tracking system, calculating LCFC on a rate class and schedule basis, using “best available data” which may include deemed savings, but would be adjusted for evaluated savings. LCFC for gas utilities is slightly different.
Georgia	Georgia Code 46-3A-9	Georgia allows consideration of lost revenues in its Integrated Resource Planning statute. Application currently limited to Georgia Power’s Power Credit Single Family Program (demand response).
Kentucky	Kentucky Statute Ch. 278, Title 285	Statute allows consideration by the Public Service Commission of lost revenues in rates for energy efficiency. Lost revenue recovery is determined case-by-case. Lost revenues are generally calculated using marginal rate minus variable costs (essentially fixed costs) multiplied by the estimated DSM savings.
Louisiana	New Orleans (Entergy) only	Lost contribution to fixed costs is estimated by multiplying the total annual projected DSM savings by adjusted gross margin per kWh.
Missouri	Lost revenue collection is allowed by PSC rules. Docket EO-2012-0142 describes KCP&L GMO recovery mechanism.	Determined case-by-case. KCP&L lost revenues are calculated as NPV of avoided costs less present value of program costs. 90% of a pre-determined annualized amount is collected in each program year with an adjustment for evaluated savings at the end of the three-year program cycle.
North Carolina	NC PSC docket E-2, Sub 931	For Progress Energy Carolina Light & Power, Net Lost Revenues are Lost Sales (initially estimated, and subsequently verified) minus customer charges, fuel, and

		incremental variable O&M. Lost revenues are calculated for each rate class.
Ohio	Ohio Administrative Code chapter 4901:1-39	Ohio allows collection of lost revenues with annual reconciliation. All but Duke Energy recover lost revenues through a DSM rider.
Oklahoma	OCC Case No. 200700449, ID No. 3710105	Public Service Company of Oklahoma has an approved DSM rider including lost revenues. Projected lost revenues are calculated using Embedded Cost per kWh by class (revenue allocation by class from most recent rate proceeding divided by sales) multiplied by kWh saved. Annual true ups are required
South Carolina	Dockets 2009-261-E; 2008-251-E	For SCE&G tariff rider, Net Lost Revenues for each customer class is based on forecasted retail kWh sales reductions attributable to DSM programs. Revenue lost would be calculated using the average rate per customer class less the class-specific fuel component and variable O&M. The resulting factor would then be multiplied by the kWh sales lost for each class of customers. This amount will be "trued-up" for the actual impact on prior year sales. For Progress Energy, language is basically the same. Lost revenues are allowed for a maximum of three years for any measure. At the end of three years, lost revenue recovery ceases on installed measures.
South Dakota	Docket GE09-001	Northwestern Energy proposes to recover lost margins by adding a fixed percentage to total program costs. Actual lost margins will be adjusted for over- or under-recovery following evaluation.

#### 4. Current Status of Lost Margin Recovery in Kansas

Westar recovers direct program costs through an Energy Efficiency Rider (EER). The latest version of the rider was approved in October 2013 and is effective through October 2014. The EER is a separate line item on customer bills and is currently \$0.000538/kWh.

Westar does not currently recover lost margins. However, Westar proposed lost margin recovery as part of its SimpleSavings Program Rider in 2010 (KCC Docket 10-WSEE-755-TAR). Westar requested permission

to “reflect in a future Energy Efficiency Recovery Rider savings equal to the customer non-fuel savings dollars of the participants in SimpleSavings.” Non-fuel savings dollars are equivalent to fixed costs recovered through Westar’s approved rates, and the mechanism described in the docket uses the same general approach as most LRAMs.

## **5. Proposed Lost Margin Recovery Mechanism**

The proposed lost margin recovery mechanism would essentially duplicate the SimpleSavings mechanism using the following approach:

- Westar will forecast kWh savings based on proposed program participation and deemed measure savings.
- Forecast kWh savings will be multiplied by the non-fuel portion of the currently approved rates to determine lost revenue.
- Projected lost revenue will be used to determine the per kWh adjustment necessary to collect lost revenue as part of an annual rider.
- At the end of each program year, the rider will be adjusted to true up the actual versus expected kWh savings, and to determine the amount of over- or under-collected lost revenue.
- Over- or under-reported lost revenues will be carried forward into the adjustment for the following year.
- A final true up will be performed at the end of the three year program cycle.