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

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**DIRECT TESTIMONY OF**

**ALLEN D. DENNIS**

**ON BEHALF OF  
KANSAS CITY POWER & LIGHT COMPANY**

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**IN THE MATTER OF THE APPLICATION OF  
KANSAS CITY POWER & LIGHT COMPANY  
FOR APPROVAL TO IMPLEMENT A PORTFOLIO OF DEMAND SIDE  
MANAGEMENT PROGRAMS INCLUDING  
AFFORDABILITY, ENERGY EFFICIENCY, DEMAND RESPONSE AND  
EDUCATIONAL PROGRAMS, AND TO IMPLEMENT A RIDER FOR RECOVERY OF  
PROGRAM COSTS AND INCENTIVES ASSOCIATED WITH THIS PORTFOLIO**

**DOCKET NO. 10-KCPE-\_\_\_\_-TAR**

1 **Q: Please state your name and business address.**

2 A: My name is Allen D. Dennis. My business address is 1200 Main St., Kansas City,  
3 Missouri 64105.

4 **Q: By whom and in what capacity are you employed?**

5 A: I am employed by Kansas City Power & Light Company (“KCP&L”) as Director,  
6 Products and Services.

7 **Q: What are your responsibilities?**

8 A: My responsibilities include providing leadership and direction to the Energy Efficiency,

1 Demand Response, Market Competitiveness, and Market Intelligence Teams. My duties  
2 include initiating and bringing to market new products, as well as improvements and  
3 innovations to existing affordability, energy efficiency, and demand response products  
4 and services.

5 **Q: Please describe your education, experience and employment history.**

6 A: I graduated from Colorado State University with a Bachelor of Science degree in  
7 Mechanical Engineering in 1981. I began my utility career at Public Service Company of  
8 Colorado and, over the course of 14 years, held various positions including marketing  
9 engineer, marketing project specialist, manager of electric wholesale and cogeneration  
10 markets, and manager of bulk power business development.

11 Following my career at Public Service Company of Colorado, I served as  
12 Director, Power Marketing for KN Energy, where I formed the electric trading and  
13 marketing area. I then became Executive Vice President and co-founder of Enserco  
14 Energy, an energy trading, marketing, and services company, and co-founder and board  
15 member of Hometown Connections, a company focused on offering products and  
16 services to public power utilities.

17 In 2003, I served as a Director in the Enterprise Consulting Division for Black &  
18 Veatch and was responsible for the energy practice and consulting with clients on  
19 integrated resource plans, risk management, and operational improvements.

20 In 2004, I began my employment at KCP&L as the Manager, Market  
21 Management. In this capacity, I managed KCP&L's Energy Consultants and  
22 Commercial and Residential Sales functions. I assumed my current position as Director,  
23 Products and Services in 2007.

1 **Q: Have you previously testified in a proceeding at the Kansas Corporation**  
2 **Commission (“KCC”) or before any other utility regulatory agency?**

3 A: Yes. I have previously filed testimony in KCP&L’s last rate case before the KCC,  
4 Docket No. 09-KCPE-246-RTS, and in KCP&L’s 2009 rate case before the Missouri  
5 Public Service Commission.

6 **Q: What is the purpose of your testimony?**

7 A: The purpose of my testimony is threefold:

- 8 (1) Outline KCP&L’s existing portfolio of demand side management (“DSM”)  
9 programs and discuss the results of those programs;
- 10 (2) Identify proposed changes to KCP&L’s DSM portfolio, including changes to  
11 existing programs and the addition of new programs; and
- 12 (3) Address how KCP&L’s portfolio of DSM programs meets the Commission’s  
13 goals for such programs as stated in its Order in Docket No. 08-GIMX-442-GIV  
14 (the “442 Order”).

15 **Q: Do you sponsor any schedules with your direct testimony?**

16 A: Yes, I sponsor the following schedules:

- 17 ▪ Schedule ADD-1: Appendices B and B-1, Customer Program Investments, from  
18 the Stipulation and Agreement in Docket No. 04-KCPE-1025-GIE;
- 19 ▪ Schedule ADD-2: Affordability, Energy Efficiency, and Demand Response,  
20 Kansas Program Summary of Budget to Actual as of December 31, 2009;
- 21 ▪ Schedule ADD-3: Quarterly Status Update Report for the 1025 S&A as of  
22 December 31, 2009;
- 23 ▪ Schedules ADD-4 through ADD-13: Appendix A information for the proposed

1 DSM program portfolio; and

- 2 ■ Schedules ADD-14 through ADD-21: Completed Evaluation, Measurement, and  
3 Verification Reports for KCP&L's existing DSM programs.

4 **KCP&L'S EXISTING DSM PORTFOLIO AND PROGRAM RESULTS**

5 **Q: Please describe KCP&L's current DSM program portfolio.**

6 A: As described in the testimonies of KCP&L witnesses Kevin Bryant and Curtis Blanc,  
7 KCP&L's current portfolio was put in place over a period of time beginning in late 2005  
8 as a result of the stipulation and agreement approved by the Commission in Docket  
9 No. 04-KCPE-1025-GIE ("1025 S&A"). Specifically, Appendix B of the 1025 S&A  
10 identified fourteen DSM programs and a market research program that KCP&L agreed to  
11 pursue and Appendix B-1 set out the anticipated budget for development and  
12 implementation of those programs over a five-year time horizon for each program. (See  
13 attached Schedule ADD-1.) All fourteen of the DSM programs have been developed and  
14 proposed for approval to the Commission. Twelve were approved and implemented.  
15 One was withdrawn by the Company and one was denied by the Commission. This  
16 portfolio of programs represents a significant commitment on the part of KCP&L to  
17 promote energy efficiency and demand response and to ensure that all classes of  
18 customers have programs in which they can participate. This commitment to DSM by a  
19 Kansas utility was unprecedented at the time of the 1025 S&A and continues to represent  
20 the broadest utility DSM reach in the State.

21 The following table presents KCP&L's existing DSM portfolio of programs split  
22 into three categories as identified in the 1025 S&A: Demand Response, Energy  
23 Efficiency, and Affordability. The table also shows whether each program serves

1 residential or commercial & industrial customers. The Affordability programs are  
 2 specifically targeted to low income residential customers.

3

<b>KANSAS CITY POWER &amp; LIGHT COMPANY            DEMAND SIDE MANAGEMENT PROGRAM PORTFOLIO            (Current)</b>		
<b>PROGRAM TYPE</b>	<b>CLASS OF CUSTOMER SERVED</b>	
	<b>Residential</b>	<b>Commercial &amp; Industrial</b>
<b>Demand Response</b>	Energy Optimizer	Energy Optimizer MPower
<b>Energy Efficiency</b>	ENERGY STAR® New Homes Cool Homes Home Energy Analyzer	Energy Audit Energy Savings – Retrofit Energy Savings – New Construction Business Energy Analyzer Building Operator Certification
<b>Affordability</b>	Low Income Weatherization Affordable New Homes	
<b>Market Research Program</b>		

4

5 **Q: How much did the 1025 S&A envision KCP&L would invest in these programs over**  
 6 **the five-year period?**

7 A: As shown in Schedule ADD-1, KCP&L anticipated total investment of approximately  
 8 \$53 million on these programs in our KCP&L Kansas and KCP&L Missouri service  
 9 territories considering a five-year timeframe for each program. The Kansas jurisdictional  
 10 share of this amount was approximately \$24 million.

11 **Q: How much has KCP&L invested in these Kansas programs so far?**

12 A: As of March 31, 2010, KCP&L had invested nearly \$21 million in these Kansas  
 13 programs. Schedule ADD-2 presents a summary of budget to actual results for each  
 14 existing DSM program through December 31, 2009. As you can see from these

1 investment summary tables, some programs have been in place for more years than others  
2 and some have invested a smaller portion of their original budget while others have  
3 exceeded their original budgets. These individual program investment differences are  
4 largely related to the timing of introduction, approval and implementation of each  
5 program as well as the general success of each program to date.

6 **Q: Have KCP&L's demand response programs been successful?**

7 A: Yes, both the primarily residential program, Energy Optimizer, and the  
8 commercial/industrial program, MPower, have been exceedingly well received by  
9 KCP&L's customers. Optimizer has exceeded the goals that KCP&L set for the  
10 program. As of December 31, 2009, KCP&L had installed approximately  
11 35,526 thermostats under the Energy Optimizer program with 17,789 having been  
12 installed in Kansas. There were 527 participants in the MPower program as of  
13 December 31, 2009 with a little less than half, 224, in Kansas. Part of the difference in  
14 participation in the MPower program between KCP&L's Missouri and Kansas  
15 jurisdictions is due to the lower number of industrial customers in KCP&L's Kansas  
16 service territory.

17 **Q: What about KCP&L's energy efficiency programs; have they also been successful?**

18 A: Yes, they have. KCP&L estimates that 81,500 MWh (120,106 MWh cumulative) have  
19 been saved through December 31, 2009 of which an estimated 33,200 MWh  
20 (51,285 MWh cumulative) come from KCP&L's Kansas customers.

21 **Q: What level of participation have you seen in your energy efficiency programs?**

22 A: As of December 31, 2009, we had approximately 28,400 Kansas customers using our  
23 Home Energy Analyzer program (56,700 total KCP&L customers), 550 Kansas

1 customers using our Business Energy Analyzer program (1,400 total KCP&L customers),  
2 7,800 Kansas customers participating in our Cool Homes program (11,100 total KCP&L  
3 customers), 700 Kansas homes that were built through participation in our ENERGY  
4 STAR<sup>®</sup> New Homes program (1,300 total KCP&L customers), and 16 Kansas  
5 participants in our Building Operator Certification program (114 total KCP&L  
6 customers). Additionally, KCP&L has provided 213 rebates to Kansas customers under  
7 the Energy Audit and Energy Saving Measures program (490 rebates total Company).

8 **Q: Have your affordability programs met with the same success as your demand**  
9 **response and energy efficiency programs?**

10 A: The affordability programs have had mixed success; the Low Income Weatherization  
11 program has been moderately successful, but the Affordable New Homes program has  
12 been a challenge with respect to participation.

13 **Q: What level of participation and savings have you achieved with the affordability**  
14 **programs?**

15 A: Overall, KCP&L estimates that these programs have added an additional 1,900 MWh of  
16 energy savings as of December 31, 2009, of which an estimated 87 MWh come from  
17 KCP&L's Kansas customers. While 726 homes have been weatherized under KCP&L's  
18 Low Income Weatherization program Company-wide, only 33 of those homes have been  
19 in Kansas. This program primarily affects urban core and rural homes, which neither is  
20 significant in KCP&L's Kansas service territory.

21 KCP&L's Affordable New Homes program has yet to see a Kansas participant  
22 although we have had nine program participants in Missouri as of December 31, 2009.  
23 As I will discuss later in my testimony, this program has not met success in Kansas and

1 KCP&L is requesting to discontinue this program as part of this filing.

2 **Q: Please provide a summary of each of the programs within KCP&L's current DSM**  
3 **portfolio.**

4 A: Certainly. In addition to the following summary, I have attached the sections of the latest  
5 quarterly status update report for the 1025 S&A (the "Quarterly Report") as  
6 Schedule ADD-3. The following provides a brief summary of each program within  
7 KCP&L's current portfolio as well as the progress achieved with each program.

8 **DEMAND RESPONSE PROGRAMS**

9 **Energy Optimizer:** The Energy Optimizer program is an air conditioning cycling  
10 program by which KCP&L can reduce residential and small commercial air conditioning  
11 load during peak summer days. This load reduction is achieved by sending a paging  
12 signal to a control device in a thermostat attached to the customer's air conditioner. The  
13 control device then turns the air conditioner off and on, or ramps up the temperature over  
14 a period of time, depending on the load reduction strategy established by KCP&L.

15 The Energy Optimizer air conditioner cycling program has proven to be very  
16 successful. As of December 31, 2009, the program had participation from 17,789 Kansas  
17 customers. Participation rates have been higher than expected and therefore program  
18 expenditures have occurred at a commensurate level.

19 **MPower:** MPower is a contracted load curtailment program for large commercial and  
20 industrial customers that provides a capacity and energy payment to participating  
21 customers to curtail their usage during summer months when high electric demand  
22 occurs. Customers are eligible for participation in the program by providing a minimum  
23 load reduction of 25 kW during KCP&L's high usage/high cost periods.



1           The MPower load curtailment program has also proven successful with regard to  
2 program participation and value. As of December 31, 2009 the program was providing  
3 29.4 MW of contracted load reduction from Kansas customers.

#### 4           **ENERGY EFFICIENCY PROGRAMS**

5           **Home Energy Analyzer:** The Home Energy Analyzer provides information to  
6 customers on how they use energy based on their specific usage data. It also provides  
7 information on ways customers can save energy and what their payback might be based  
8 upon the improvements made. Participation in the program has exceeded expectations  
9 and as of December 31, 2009, 28,424 Kansas customers have participated in the program,  
10 which is 363 percent compared to budget. Actual expenditures compared to budget are  
11 \*\*■\*\* percent.

12           **Cool Homes:** This program is designed as a re-commissioning/early replacement  
13 program. Early replacement will target replacement of SEER 8 and below equipment  
14 with SEER 14 or higher equipment. All installations will utilize CheckMe!<sup>®</sup>, a software  
15 program that ensures quality installation through proper charging of the refrigerant and  
16 airflow over evaporator coils, while the contractor is at the premise. Those who request  
17 and receive a cooling system evaluation also receive complimentary compact fluorescent  
18 light bulbs (“CFLs”), which are anticipated to add to the savings achieved through this  
19 program.

20           The Cool Homes program has been very successful in Kansas with over  
21 7,836 Check Me! evaluations performed compared to a budget of 3,148 evaluations.  
22 Actual expenditures compared to budget are \*\*■\*\* percent and energy savings are  
23 164 percent of budget.

1        **ENERGY STAR® New Homes:** ENERGY STAR® New Homes requires that new  
2 homes be constructed to a standard at least 15 percent more energy efficient than the  
3 2004 International Residential Code. These standards are based on heating, cooling, and  
4 hot water energy use and are typically achieved through a combination of building  
5 envelope upgrades, high performance windows, controlled air infiltration, upgraded  
6 heating and air conditioning systems, tight duct systems, and upgraded water-heating  
7 equipment. Homes can be qualified as an ENERGY STAR® new home through two  
8 different paths. The prescriptive path uses Building Option Packages which represent a  
9 set of construction specifications for a specific climate zone. The performance path  
10 qualifies the home based on a home energy rating. This program was designed in a  
11 coordinated effort between the Metropolitan Energy Center (“MEC”) and the Kansas  
12 City Home Builders Association’s Build Green Committee. The program is currently  
13 designed to offer builders an \$800 rebate for each home that is built to the ENERGY  
14 STAR® requirements. KCP&L will also pay up to \$750 for the third-party inspection  
15 and/or rating required to qualify the home as ENERGY STAR® label.

16                The ENERGY STAR® New Homes program has had significant participation in  
17 Kansas since its launch with 705 builder rebates paid compared to a budget of  
18 243 rebates. Actual expenditures and energy savings are commensurate with this level  
19 and are at about \*\*■\*\* percent and 290 percent of budget, respectively. Much of the  
20 participation in the ENERGY STAR® New Homes program in 2009 has been from multi-  
21 family builders. Participation from single family home builders has been limited due to  
22 the economic recession.

1        **Building Operator Certification:** Building Operator Certification is a market  
2 transformation effort to train facility operators in efficient building operations and  
3 management, establish recognition of and value for certified operators, support the  
4 adoption of resource-efficient O&M as the standard in building operations, and create a  
5 self-sustaining entity for administering and marketing the training.

6                In Kansas, the Building Operator Certification (“BOC”) program has had  
7 sixteen graduates compared to a budget of 81 graduates, or 20 percent. The energy and  
8 demand savings is commensurate with participation. Actual expenditures are at about  
9 \*\*■\*\* percent of budget, which is reflective of the lower than anticipated participation.  
10 As discussed later in my testimony, KCP&L is proposing to offer the BOC program as an  
11 educational program.

12        **Business Energy Analyzer:** The Business Energy Analyzer provides information to  
13 business customers on how they use energy based on their specific usage data. It  
14 provides information on ways they can save energy and what their payback might be  
15 based on the improvements made. It also allows businesses to benchmark themselves  
16 against like businesses.

17                Participation in the program has been slightly below expectations. As of  
18 December 31, 2009, 552 Kansas business customers have participated in the program  
19 compared to budgeted participation of 725 customers.

20        **Energy Audit and Energy Saving Measures Rider:** This program includes three  
21 components: audit, custom rebates for retrofit projects, and custom rebates for new  
22 construction projects. For the C&I Audit Rebate, KCP&L offers rebates to customers to  
23 cover 50 percent of the cost of an energy audit, up to \$300 for customers with facilities

1 less than 25,000 square feet and up to \$500 for customers with facilities over  
2 25,000 square feet. Customers with multiple facilities may apply for multiple audit  
3 rebates. In order to receive the rebate, the customer must implement at least one of the  
4 audit recommendations that qualify for a KCP&L C&I Custom Rebate. No Kansas  
5 customers have applied for an audit rebate. Most equipment installing contractors absorb  
6 the cost of the audit for customers who purchase equipment. Expenditures associated  
7 with this program to date are based on administrative expense and the cost of certifying  
8 auditors for the program.

9 The retrofit component of the program has been very successful with respect to  
10 energy and demand savings achieved compared to budget, which is 941 percent and  
11 342 percent, respectively. In Kansas, actual expenditures for the retrofit component of  
12 the program are at \*\*■■■■\*\* percent of budget. However, the new construction  
13 component of the program is below budget with respect to energy and demand savings,  
14 which is 47 percent and 29 percent, respectively. Actual expenditures for the new  
15 construction component of the program are at \*\*■■■■\*\* percent of budget.

16 Within the retrofit and new construction components of the Energy Audit and  
17 Energy Saving Measures Rider, a small general service customer may also apply for  
18 rebates from a prescriptive list of energy-efficiency measures. These measures include  
19 lighting and lighting controls, air conditioning, and motors.

20 **AFFORDABILITY PROGRAMS**

21 **Low Income Weatherization:** KCP&L partners with Community Action Plan (“CAP”)  
22 agencies within the state of Kansas that provide weatherization assistance to low income  
23 individuals and families. Qualified lower income customers can get help managing their

1 energy use and bills through KCP&L's Low Income Weatherization Program. The  
2 program works directly with local CAP agencies that already provide weatherization  
3 services to low income customers. KCP&L provides supplemental funds to the CAPs to  
4 cover the cost of additional cost-effective weatherization measures.

5 KCP&L owner-occupied residential customers in one to four-unit structures with  
6 income up to 200 percent of the federal poverty guidelines may participate. Renters are  
7 also allowed to participate if the landlord pays 50 percent of the weatherization cost and  
8 agrees not to raise the rent for a pre-agreed period of time.

9 To date, KCP&L has provided weatherization assistance for 33 dwellings in  
10 Kansas compared to a budget of 176 participants (19 percent). Expenditures, energy  
11 savings, and demand savings are commensurate with this level of participation compared  
12 to budget.

13 **Affordable New Homes:** The Affordable New Homes Program is designed to be a  
14 partnership between KCP&L and organizations to achieve energy efficient affordable  
15 new housing for the low-income community. Financial incentives are available at the full  
16 incremental cost for high efficiency central air conditioners and heat pumps. An  
17 incentive is available toward the purchase of an ENERGY STAR<sup>®</sup> rated refrigerator,  
18 toward the purchase of ENERGY STAR<sup>®</sup> rated lighting fixtures, and toward installing  
19 higher than standard levels of insulation in the attic, floor, or crawlspace.

20 The program has received no participation in Kansas since its launch in 2007.  
21 There have been minimal expenditures to this program, reflecting KCP&L administration  
22 charges. I will address later in my testimony KCP&L's proposal to discontinue the  
23 Affordable New Homes program.

**PROPOSED PORTFOLIO CHANGES**

1

2 **Q: What changes to its DSM portfolio is KCP&L requesting?**

3 A: KCP&L is requesting three types of changes to its existing DSM portfolio of programs:  
4 discontinuance of one program, modification of several existing programs, and the  
5 addition of a new program. In addition, KCP&L is requesting that the Commission  
6 confirm continuation of its existing programs as permanent programs and remove the  
7 pilot status for these programs. As part of this latter request, I am also recommending  
8 that specific annual budget amounts not be included in the tariffs themselves as the spend  
9 for these programs, and any associated audit by Staff or Staff's EM&V consultant, will  
10 be addressed as part of the DSM Rider as discussed in the testimony of KCP&L witness  
11 Chris Giles. This request is in keeping with Staff's guidance.

12 **Q: What program is KCP&L proposing to discontinue?**

13 A: As mentioned earlier in my testimony, KCP&L is proposing to discontinue its Low  
14 Income Affordable New Homes tariff.

15 **Q: Why is KCP&L proposing to discontinue the Affordable New Homes program?**

16 A: Since the Affordable New Homes program launched in Kansas in July 2007, no  
17 participation has occurred. This is largely because the economic downturn has caused a  
18 decrease in new construction. Typically construction in new homes for low income is in  
19 the form of multi-family units, which is not eligible under this program. KCP&L is  
20 exploring additional avenues to reach its low income demographic and may file an  
21 additional program(s) in the future.

22 **Q: Is KCP&L proposing to discontinue any other existing DSM programs?**

23 A: No, it is not.

1 **Q: Which of its current DSM programs has KCP&L identified for modification?**

2 A: KCP&L is proposing specific modifications to its Cool Homes program, ENERGY  
3 STAR<sup>®</sup> New Homes program, Building Operator Certification program, MPower  
4 program, and Energy Audit and Energy Saving Measures Rider.

5 **Q: What specific changes to these programs are being requested?**

6 A: The following summary provides the proposed modifications to each of the program  
7 tariffs.

8 **▪ Cool Homes**

- 9 ○ Include a provision to offer a customer rebate incentive in the amount of  
10 \$100 to replace a rated or operating unit with an EER greater than 8.0 or a  
11 non-working unit with a 15 SEER or higher unit. Currently, rebates are  
12 only offered for replacing operational units with an EER of 8.0 or less.  
13 This \$100 proposed rebate provides a customer with some incentive for an  
14 efficiency upgrade for their existing units that are non-operational or if  
15 operational, for those units that are rated higher than an EER of 8.0.

16 **▪ ENERGY STAR<sup>®</sup> New Homes**

- 17 ○ Eliminate the \$750 rebate incentive for inspection costs paid to a Home  
18 Energy Rating System (“HERS”) rater and increase the rebate incentive  
19 paid to builders from \$800 to \$2,000 per home. ENERGY STAR<sup>®</sup> has  
20 proposed new guidelines, which are expected to be in effect in 2011  
21 (“ENERGY STAR<sup>®</sup> 2011 Guidelines”). By increasing the rebate amount  
22 that will go directly to the builder, KCP&L will help to offset the  
23 incremental cost of building a home to meet the ENERGY STAR<sup>®</sup> 2011

1 Guidelines and thereby allowing the cost that is paid to the HERS rater to  
2 become market-based.

- 3 ○ Consistent with ENERGY STAR<sup>®</sup> guidelines for multi-family units, add  
4 tariff language to include multi-family units greater than three stories if  
5 (1) the structure is permitted as residential by the local building  
6 department; and (2) each individual residential unit has its own heating,  
7 cooling, and hot water systems, separate from the other units.
- 8 ○ Include an annual maximum rebate cap per builder per development of  
9 \$150,000 in order to prevent exhaustion of the program budget due to  
10 large multi-family projects.

11 ■ **Building Operator Certification**

- 12 ○ Classify as an education program pursuant to guidelines set forth in the  
13 442 Order.

14 ■ **MPower Program**

- 15 ○ Delete Energy Purchase Option. This option has not been used by  
16 customers.
- 17 ○ Delete the section allowing the Company to waive one non-compliance  
18 penalty per season per customer. This option is no longer needed or used.  
19 Customers can limit performance risk by choosing the maximum number  
20 of events in which they are willing to participate.
- 21 ○ Delete Curtailment Excess of Customer Load section. Payments made  
22 under this provision are negligible. The deletion of this provision is  
23 expected to reduce customer confusion and increase efficiency in program



1 administration.

2 **▪ Energy Audit and Energy Saving Measures Rider**

- 3 ○ Rename tariff to Commercial and Industrial Rebate Program.
- 4 ○ Expand the Prescriptive Energy Efficiency Measures Rebate component
- 5 and add a Request For Proposal Measures component.
- 6 ○ Eliminate the rebate for a completed audit. This portion of the program
- 7 has not been successful and has not had any participants.
- 8 ○ Eliminate small, medium and large customer classifications in the Custom
- 9 Rebate component of the program since the program is proposed to have
- 10 the same customer maximum rebate levels across all customer
- 11 classifications.
- 12 ○ Increase annual customer maximum rebate levels such that the maximum
- 13 is limited to up to \$150,000 per site per program year and up to \$250,000
- 14 per customer per program year. This change is expected to incent larger
- 15 energy efficiency projects and will allow a customer to submit more
- 16 applications for multiple sites up to these maximums.

17 **▪ Energy Optimizer**

- 18 ○ Change the name of the tariff schedule to Schedule EO (Energy
- 19 Optimizer) from Schedule ACC (Air Conditioner Cycling).

20 **Q: Why is it necessary for KCP&L to request that its existing programs be moved from**

21 **pilot status to permanent status?**

22 **A:** KCP&L witness Curtis Blanc addresses this issue and the rationale for the request in his

23 testimony. Essentially, the 1025 S&A laid out a five-year timeframe and budget for

1 KCP&L's existing programs. Unless KCP&L affirmatively extends the existing  
2 programs, we believe that they will expire with the expiration of the Regulatory Plan.

3 **Q: Is KCP&L proposing to add any new programs to its DSM portfolio?**

4 A: Yes. KCP&L is proposing to add one new DSM program, the Energy Saver Loan  
5 Program, partnered with Efficiency Kansas. This is an energy efficiency program.  
6 KCP&L's Energy Saver Loan Program will partner with the Efficiency Kansas loan  
7 program, which provides loans to qualifying residential and commercial customers for  
8 energy efficiency improvements. Efficiency Kansas is a revolving loan fund established  
9 by the KCC to facilitate energy conservation and efficiency improvements in Kansas  
10 homes and small businesses. Operated by the State Energy Office ("SEO"), Efficiency  
11 Kansas is funded by federal economic stimulus dollars, which were authorized by the  
12 American Recovery and Reinvestment Act of 2009 ("ARRA"). KCP&L will facilitate  
13 the repayment of customer loans to the SEO through collection on customers' bills. The  
14 loan will be premise-based and will survive change in tenancy of a participating premise.

15 **Q: Is KCP&L proposing any customer research programs?**

16 A: Yes, KCP&L will establish a Consumer Market Research Program that will concentrate  
17 on specific opportunities to expand and/or enhance energy efficiency and demand  
18 response program offerings to KCP&L customers. The research will identify current  
19 barriers to customer participation in these programs and help find ways to overcome  
20 identified hurdles. In addition, this research will help identify the best communication  
21 channels to reach those customers who have yet to participate in a program.

1 **Q: Is KCP&L requesting that the costs of this Consumer Market Research Program be**  
2 **included for cost recovery under KCP&L's proposed DSM Rider?**

3 A: Yes. Just as in the 1025 S&A, KCP&L proposes that these costs are a necessary part of  
4 its DSM initiative and should be considered in concert with the specific programs  
5 included in the DSM portfolio. Appendix A information with the particulars of this  
6 research program is attached to my testimony as Schedule ADD-6.

7 **Q: Has KCP&L included information in this filing for each new program tariff as**  
8 **required by the Commission Order in Docket No. 08-GIMX-442-GIE ("442**  
9 **Order")?**

10 A: Yes, KCP&L has included a proposed tariff, clean and redline versions where  
11 appropriate, and Appendix A supporting information for each existing and new program  
12 in compliance with the 442 Order. The tariffs are attached to the testimony of KCP&L  
13 witness Curtis Blanc. The Appendix A supporting information for each proposed  
14 program is attached to my testimony as Schedules ADD-4 through ADD-13.

15 **Q: Is KCP&L proposing any education programs in this filing?**

16 A: Yes. In accordance with the Commission's findings in the 442 Order, KCP&L is  
17 proposing the following three existing programs be considered as education programs:

- 18       ▪ Building Operator Certification
- 19       ▪ Home Energy Analyzer
- 20       ▪ Business Energy Analyzer

1 **Q: Does the budget for these three existing education programs meet the Commission's**  
 2 **five percent guideline for total energy efficiency portfolio funding devoted to**  
 3 **education programs?**

4 **A:** Yes. The total five-year budget for these three existing programs is \*\*■■■■■\*\*, which  
 5 is \*\*■■■\*\* percent of the total five-year budget for the existing and proposed DSM  
 6 programs identified in this case.

7 **Q: Please summarize the composition of KCP&L's DSM program portfolio following**  
 8 **these changes.**

9 **A:** The following table updates the one included earlier in my testimony to incorporate the  
 10 changes I discussed.

KANSAS CITY POWER & LIGHT COMPANY DEMAND SIDE MANAGEMENT PROGRAM PORTFOLIO (Proposed)		
PROGRAM TYPE	CLASS OF CUSTOMER SERVED	
	Residential	Commercial & Industrial
Demand Response	Energy Optimizer	Energy Optimizer Mpower
Energy Efficiency	ENERGY STAR® New Homes Cool Homes Energy Saver Loan Program	Commercial & Industrial Rebate Program <ul style="list-style-type: none"> <li>▪ Prescriptive Energy Efficiency Measures</li> <li>▪ Custom Energy Efficiency Measures</li> <li>▪ Request for Proposal Projects</li> </ul> Energy Saver Loan Program
Affordability	Low Income Weatherization	
Educational	Home Energy Analyzer	Business Energy Analyzer Building Operator Certification
Market Research Program		

11

1 COMPLIANCE WITH THE 442 ORDER

2 **Q: Does KCP&L's proposed portfolio of DSM programs meet the Commission goals as**  
3 **stated in the 442 Order?**

4 **A:** Yes. KCP&L reviewed the 442 Order to ensure compliance with the stated goals and  
5 policies of the Commission. I reviewed each of the Commission's stated goals with  
6 regard to KCP&L's DSM portfolio below. Specifically, I address Paragraphs 16, 23, 25,  
7 26, 27, 28, 29, 30, 45-53, 57, 59 and 71.

8 **Q: In Paragraph 16 of the 442 Order, the Commission notes the How\$mart Rider pilot**  
9 **program, which was developed by Midwest Energy, as a program that deals**  
10 **effectively with problems associated with low income and rental units. Are you**  
11 **proposing a similar program?**

12 **A:** Yes, as noted above, in addition to the Low Income Weatherization program, KCP&L is  
13 proposing the Energy Saver Loan Program, which partners with Efficiency Kansas.  
14 Efficiency Kansas provides loans to qualifying customers for energy efficiency  
15 improvements from a revolving loan fund established by the KCC to facilitate energy  
16 conservation and efficiency improvements. As pointed out in the Efficiency Kansas  
17 Program Manual (November 12, 2009), the loan program is closely aligned with the  
18 KCC's overall goals for energy efficiency programs. The program (1) produces cost-  
19 effective, firm energy savings; (2) requires a comprehensive approach based on sound  
20 building science principles; (3) works well with Midwest Energy's existing How\$mart®  
21 program, and (4) allows for targeting of rental units.

1 **Q: Paragraph 23 of the 442 Order states that energy efficiency programs have the**  
2 **potential to mitigate CO<sub>2</sub> emissions, which is a desirable outcome, but must be**  
3 **pursued in the context of assuring efficient and cost-effective utility programming.**  
4 **How does KCP&L address this?**

5 A: KCP&L's existing DSM portfolio of programs has mitigated CO<sub>2</sub> emissions and has  
6 achieved these savings in a cost-effective and efficient manner. To date, KCP&L  
7 conservatively estimates that its existing DSM program portfolio has saved over  
8 25,000 metric tons of CO<sub>2</sub> emissions in Kansas, which is the equivalent of taking nearly  
9 4,000 cars off the road.<sup>1</sup>

10 **Q: How does KCP&L's proposed portfolio of DSM programs meet the stated goal in**  
11 **Paragraph 25 of the 442 Order -- specifically that energy efficiency should be**  
12 **considered a resource, along with traditional supply-side resources, to meet present**  
13 **and future demands?**

14 A: KCP&L agrees with the Commission that DSM programs should be considered a  
15 resource equivalent to traditional supply-side resources for meeting demand growth. In  
16 fact, KCP&L introduced its current portfolio of DSM programs as part of its CEP back in  
17 2004 for that very reason. KCP&L's CEP addressed the future needs of its customers  
18 through a combination of new generation, renewable resources and DSM programs. As  
19 discussed in the testimony of KCP&L witness Kevin Bryant, KCP&L models its DSM  
20 programs as a supply-side resource in its resource planning process. This analysis has  
21 repeatedly shown that DSM programs are a cost-effective, long-term resource to meet  
22 customer demand.

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<sup>1</sup> Conversion equivalency factor provided by Mid-America Regional Council ("MARC"). A mid-sized 30-mpg car driving 12,000 miles/year will create about 6.3 tons of CO<sub>2</sub> per year.

1 **Q: Please describe how KCP&L’s portfolio will address Paragraph 25 of the**  
2 **442 Order, which states that energy efficiency programs should be used as a**  
3 **resource to moderate bill increases that are likely to be caused as utilities build new**  
4 **generation, implement environmental requirements and invest in additional**  
5 **transmission assets.**

6 A: As noted above, KCP&L chose a combination of new generation, renewable resources  
7 and DSM programs when developing its CEP. As KCP&L has been able to successfully  
8 reduce both the energy and demand growth of its customer base as a result of these  
9 programs, the need for future baseload and peaking resources will be mitigated. To the  
10 extent that implementation of these DSM resources is less expensive than traditional  
11 supply-side resources, as shown by the initial program benefit-cost analysis and  
12 evaluation of the programs following implementation, then they will serve to moderate  
13 the impact on customer bills from traditional resources over the long-term. As KCP&L  
14 has often stated, it believes that these DSM programs should be considered by the  
15 Commission on a level playing field with traditional generation resources.

16 **Q: How does KCP&L propose to show that its DSM programs produce cost-effective,**  
17 **firm energy savings as stated in Paragraphs 26 and 27 of the 442 Order?**

18 A: DSM programs should be used to achieve both energy and demand reductions. KCP&L  
19 currently estimates energy and demand savings on its existing DSM programs based upon  
20 rigorous modeling assumptions. These savings are verified through the evaluation,  
21 measurement, and verification (“EM&V”) process with a third party evaluator two and a  
22 half years following the program tariff approval dates for each program. Once energy  
23 and demand savings are verified, KCP&L re-runs all benefit-cost tests to ensure

1 programs are cost-effective and operating accordingly. In addition to the periodic  
2 EM&V analysis, participation, energy savings, demand savings, and program spending  
3 are reported monthly and compared to budget.

4 **Q: Paragraphs 27 and 71 of the 442 Order states that programs should address**  
5 **efficiency improvements in a comprehensive manner using sound building science**  
6 **principles. Programs should implement the most cost-effective measures in a logical**  
7 **sequence to maximize the energy savings per dollar spent. How do KCP&L's DSM**  
8 **programs meet this stated Commission goal?**

9 A: KCP&L's proposed program portfolio offers customers a comprehensive total home or  
10 building solution. Residential customers may elect to take advantage of multiple  
11 programs that, when taken together, satisfy the Commission's preferred total home  
12 approach to energy efficiency. These programs offer customers multiple choices to  
13 implement energy efficiency which can be taken in combination or individually over time  
14 as the customer's resources allow.

15 For example, the Home Energy Analyzer, the online program, may often be the  
16 first step that a residential customer may take to learn more about energy efficiency. The  
17 Home Energy Analyzer will provide a customer with energy efficient recommendations  
18 for their home based on specific information that a customer provides with respect to type  
19 of appliances and mechanical systems, lighting, windows, insulation, behaviors, etc. The  
20 Analyzer provides energy savings opportunities for the customer to consider, which may  
21 include suggesting that a customer caulk and seal windows in order to minimize air  
22 leakage from the home, replace incandescent with compact fluorescent lighting, or  
23 replace heating and/or cooling systems. The Home Energy Analyzer may then direct the



1 customer to participate in the Optimizer program by installing a programmable  
2 thermostat. It also provides a direct link to the Cool Homes program, which provides  
3 information to the customer on replacing their inefficient air conditioner with a more  
4 efficient unit. In the future, we will plan to also cross-promote Home Energy Analyzer  
5 with KCP&L's proposed Energy Saver Loan Program, partnered with Efficiency Kansas.  
6 Thus, in this example, the Energy Analyzer, when utilized in combination with the Cool  
7 Homes and Optimizer programs, offer the customer the opportunity to implement  
8 measures for a total home energy efficiency solution by taking advantage of our existing  
9 programs.

10 **Q: Does KCP&L's portfolio provide programs for all classes of customers as stated in**  
11 **Paragraph 28 of the 442 Order, specifically, "that while recognizing that addressing**  
12 **societal inequities is not its primary mandate, the Commission seeks development of**  
13 **energy efficiency programs for all classes of customers, including low income**  
14 **customers where appropriate."?**

15 **A:** Yes. As shown by the tables earlier in my testimony, KCP&L has sought to provide a  
16 comprehensive portfolio of programs that provides options for all classes of customers,  
17 including low income customers. KCP&L is proposing to continue to offer the Low  
18 Income Weatherization program as part of this filing. This program is directly targeted  
19 towards low income customers. One particular organization that KCP&L partners with  
20 for weatherization assistance is the Johnson County Housing Services organization. The  
21 organization targets services to older adults with the greatest social and economic need  
22 and also provides a variety of support services for caregivers.

1 **Q: Paragraphs 29 and 30 of the 442 Order state that education programs should be**  
2 **implemented to facilitate achieving the maximum benefit from energy efficiency**  
3 **programs. Programs should be implemented which educate consumers about the**  
4 **actual cost of providing energy to their homes and businesses and encourage use of**  
5 **energy in the most reasonably efficient manner. The Commission is particularly**  
6 **interested in exploring use of the monthly bill to provide information to consumers**  
7 **to increase their ability to make informed decisions. What educational programs**  
8 **are included in KCP&L's portfolio?**

9 **A:** As discussed earlier in my testimony, KCP&L is proposing to continue to offer the Home  
10 Energy Analyzer, Business Energy Analyzer, and Building Operator Certification  
11 programs as part of this filing. These programs are educational in nature and should be  
12 classified as such.

13 The Home and Business Energy Analyzers are online tools designed to educate  
14 residential and commercial customers, respectively, about their energy usage and offer  
15 energy efficiency solutions to lower their bills. In addition to the Home and Business  
16 Energy Analyzers, KCP&L offers paperless billing to all customers. Paperless billing is  
17 accessible to customers through the AccountLink web application on KCP&L's website.  
18 Online billing provides enhanced monthly billing data such as the cost per unit of energy  
19 used; meter readings, usage comparisons with prior periods dating back to 24 months,  
20 and weather effects. The Home and Business Energy Analyzers provide customers  
21 examples of how energy saving devices can change usage and costs, as well as examples  
22 of how changing temperature settings impact usage and costs.

1           In addition, KCP&L offers the Building Operator Certification program to its  
2 commercial and industrial customers. BOC is an educational program to train facility  
3 managers to more efficiently utilize energy in their facilities.

4           All of these educational programs are designed to increase customer knowledge  
5 regarding both their usage of electricity and available programs to manage that usage.  
6 KCP&L also participates in events where they can provide demand side management  
7 information to the public, such as Home Shows that showcase home products. In  
8 addition, educational material is provided to customers through periodic bill inserts and  
9 on KCP&L's website.

10 **Q: Does KCP&L comply with Paragraphs 45-53 of the Order 442 regarding**  
11 **Evaluation, Measurement, and Verification?**

12 **A:** Yes. KCP&L has an evaluation process in place for its programs. KCP&L contracts  
13 with a third party evaluator to perform both process and impact evaluations for its  
14 existing DSM programs. The third party evaluator is used to avoid conflicts of interest  
15 and to ensure creditability of evaluation results. Evaluations are completed two years and  
16 six months following program tariff approval dates. Evaluation plans are developed by  
17 KCP&L's evaluation contractor(s) and describe all necessary data collection, process  
18 evaluation tasks, and impact evaluation tasks by program.

19           The evaluation plans include study methodology by program, data collection  
20 strategies, data requests by program, and a detailed work plan and schedule. KCP&L  
21 supports the International Performance Measurement and Verification Protocol  
22 ("IPMVP") for all programs where this standard is applicable.

1 **Q: What is KCP&L's goal of the process evaluation?**

2 A: KCP&L's goal of the process evaluation component is to help improve program design  
3 and implementation processes in order to improve their effectiveness or operational  
4 efficiencies. Through the process evaluations, the evaluation contractor documents  
5 program accomplishments, administrative processes, participant experiences, customer  
6 satisfaction and successes, and failures. Process evaluation is meant to inform the  
7 program implementers, provide corrective guidance regarding program implementation  
8 and help to assess whether there is a continuing need for the programs.

9 **Q: What is KCP&L's goal of the impact evaluation?**

10 A: KCP&L's goal of impact evaluation is to calculate gross program energy and demand  
11 savings. Gross program impacts are the estimated site level demand and energy savings  
12 caused by the measures installed through the program and do not account for factors such  
13 as free ridership, which may influence attribution of savings to the program. Depending  
14 on the level of rigor demanded, a variety of technical issues can be addressed to  
15 determine gross program impacts, including determination of the pre-installation  
16 technology performance baseline, determining the standard energy efficiency baseline,  
17 verifying that the DSM measures listed for projects were actually installed, and  
18 developing an accurate count of the installed measures, determining the demand and  
19 energy savings performance of the DSM measures installed, estimating the load shapes  
20 for the DSM program measures installed through the programs, including the coincidence  
21 of each DSM measure with seasonal and day type peak demand periods, and estimating  
22 the long-term persistence of the program's impacts.

1           Other technical issues associated with determining gross program impacts include  
2           assessing the quality of the data that is available to work with from program files and  
3           databases, and determining what data manipulation systems and supplemental analyses  
4           are required to produce reliable estimates of program impacts.

5 **Q: Have any evaluations been completed on KCP&L's existing programs?**

6 A: Yes. To date, process and impact evaluations have been completed on seven of  
7 KCP&L's DSM programs:

- 8           ▪ MPower
- 9           ▪ Energy Optimizer (twice)
- 10          ▪ Energy Audit and Energy Saving Measures Program
- 11          ▪ Building Operator Certification
- 12          ▪ Cool Homes
- 13          ▪ Low Income Weatherization
- 14          ▪ Affordable New Homes

15           I have included the EM&V reports for each of these programs as Schedules ADD-14  
16           through ADD-21.

17 **Q: What have been the results of the EM&V's performed on KCP&L's programs?**

18 A: In general, the results have been favorable. As discussed earlier in my testimony,  
19 KCP&L has used the results of the process portion of the evaluation to help improve  
20 program design and implementation processes. KCP&L considers the recommendations  
21 by the third-party evaluator and makes adjustments to program design that it considers to  
22 be appropriate. KCP&L considers all of the process recommendations to be learning  
23 tools to enhance our programs.

1           With respect to the impact evaluation, KCP&L has adjusted its initial assumed  
2 program savings to reflect the results of the EM&V, which is based on an independent  
3 analysis performed by the third-party administrator. In some cases, KCP&L's initial  
4 demand and energy savings assumptions were adjusted upward and in others, they were  
5 adjusted downward.

6 **Q: Why would savings assumptions need to be adjusted upward or downward?**

7 A: When KCP&L first proposed its DSM portfolio in 2004, we were admittedly on a steep  
8 learning curve. However since then, KCP&L has implemented twelve DSM programs  
9 and has gained significant experience in program design, implementation, and evaluation  
10 of our programs. All but one of these twelve programs have been evaluated by an  
11 independent third-party. The final program, ENERGY STAR<sup>®</sup> New Homes, will be  
12 evaluated later this year.

13           When KCP&L proposed its programs, it relied upon external expertise to help  
14 develop the initial estimates of the demand and energy savings for the programs; it can  
15 only be expected that actual results from customer participation in its programs will yield  
16 more accurate estimates. Thus KCP&L has made adjustments to its programs.

17           KCP&L has been steadfast in achieving its demand and energy savings goals and  
18 has developed programs that have our trade allies and partners rethinking how they do  
19 business so that they may incorporate our rebates into their business model. Our  
20 successful programs have been viewed positively by customers and our trade allies alike.

1 **Q: Paragraph 57 of the 442 Order states that the Commission believes dynamic pricing**  
2 **is a critical component of energy efficiency programming because of its potential to**  
3 **reduce peak energy demand and, thereby, postpone or avoid the need to build or**  
4 **acquire additional peaking generation capacity. In addition, Paragraph 59 of the**  
5 **442 Order states that the Commission seeks dynamic pricing programs and other**  
6 **rate designs such as time-of-use, critical peak and seasonal price differentials that**  
7 **send more accurate price signals to customers. Has KCP&L proposed any dynamic**  
8 **pricing programs in the present case?**

9 A: KCP&L currently has a time-of-use rate tariff; however, there is little participation.  
10 Research efforts are currently underway to consider a variety of dynamic pricing  
11 programs to offer all customer types as well as optimal methods of sending accurate  
12 pricing signals to customers. KCP&L is also participating in the informal review,  
13 evaluation and analysis of rate design led by the Commission Staff that began in January  
14 2010 called the Dynamic Pricing Project.

15 **Q: Does that conclude your testimony?**

16 A: Yes, it does.





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### **DEMAND RESPONSE, EFFICIENCY AND AFFORDABILITY PROGRAMS**

#### **1. AFFORDABILITY PROGRAMS**

##### **LOW-INCOME AFFORDABLE NEW HOMES PROGRAM**

###### **PROGRAM DESCRIPTION**

The Low-Income Affordable New Homes Program will be a partnership between KCP&L and non-profit organizations, including Habitat for Humanity and local government community development organizations, to achieve energy-efficient affordable new housing for the low-income community. Incentives will be available for high efficiency CAC, heat pumps and refrigerators. Financial incentives will be set at the full incremental cost for CAC and heat pumps. A \$200 incentive will be available towards the purchase of an ENERGY STAR® rated refrigerator. Finally, up to \$100 will be available towards the purchase of ENERGY STAR® rated lighting fixtures.

The customer incentive budget is based upon 100% homes receiving refrigerator and lighting incentives and 25% of the homes will receiving high efficiency air conditioners, and 25% receiving high efficiency heat pumps.

###### **EVALUATION**

Impacts associated with this program will be estimated based upon engineering analysis. If a control group can be identified, a billing analysis may be conducted after homes that have participated in the program has been occupied for at least 1 full year.

##### **LOW INCOME WEATHERIZATION AND HIGH EFFICIENCY PROGRAM**

###### **PROGRAM DESCRIPTION**

Qualifying lower income customers can get help managing their energy use and bills through KCP&L's low income weatherization and high efficiency program. The program will work directly with local CAP agencies that already provide weatherization services to low income customers through the DOE and other state agencies. KCP&L will provide supplemental funds to the CAPs to cover the cost of weatherization measures. This program will be administered by the CAP agencies and follows the protocol under current federal and state guidelines. Participants can be a KCP&L owner-occupied residential customer in a one to

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four-unit structure and have an income that is up to 185% of the federal poverty guidelines. Renters will also be allowed to participate if the landlord pays 50% of the weatherization cost and agrees not to raise the rent for pre-agreed period of time. CAP agencies will be allowed an average of \$1,500 per participant for weatherization and other electric savings measures.

This program helps low income customers reduce their energy costs at no cost to the customer. CAP agencies offer a cost effective implementation capability, which allows most of the funds allocated to this program to go directly to the purchase and installation of energy efficiency measures.

### **EVALUATION**

Weatherization impacts for the first two years of the program will be based upon borrowed analysis from other utility programs. In the third year of the program, a billing analysis will be conducted to estimate impacts for all measures.

#### **1. EFFICIENCY PROGRAMS**

##### **ONLINE ENERGY INFORMATION AND ANALYSIS PROGRAM USING NEXUS® RESIDENTIAL SUITE**

### **PROGRAM DESCRIPTION**

The online energy information and analysis program allows all residential customers with computers to access their billing information and comparisons of their usage on a daily, weekly, monthly or annual basis. This tool will analyze what end uses make up what percent of their usage, and provide information on ways to save energy by end use through a searchable resource center. This tool also allows the user to analyze why their bill may have changed from one month to another. A home comparison also displays a comparison of the customer's home versus an average similar home via an Energy guide label concept.

### **EVALUATION**

Since this is an informational program and any potential savings will be difficult, if not impossible, to accurately measure, KCP&L does not propose to evaluate the program for energy savings. KCP&L will provide reports on usage.

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### **HOME PERFORMANCE WITH ENERGY STAR® PROGRAM - TRAINING**

#### **PROGRAM DESCRIPTION**

Home Performance with ENERGY STAR® is a unique program which enhances the traditional existing home energy audit service. This program uses the ENERGY STAR® brand to help encourage and facilitate whole-house energy improvements to existing housing. This program focuses on the private-sector contractors and service professionals who currently work on existing homes – replacing HVAC systems, adding insulation, installing new windows, etc. The Missouri Home Performance with ENERGY STAR® Initiative requires contractors to be accredited under Building Performance Institute (BPI) standards. Technicians must possess appropriate skills and are field-tested to obtain certification, further lending credibility to services offered.

The program strives to provide homeowners with consumer education, value and a whole-house approach. Contractors are trained to provide "one-stop" problem solving that identifies multiple improvements that, as a package, will increase the home's energy efficiency. While the program goal is saving energy, its market-based approach and message focus on addressing a variety of customer needs – comfort, energy savings, durability and health and safety. It also encourages the development of a skilled and available contractor/provider infrastructure that has an economic self-interest in providing and promoting comprehensive, building science-based, retrofit services.

#### **EVALUATION**

KCP&L will track whole-house evaluations that are performed by certified contractors in their service territory. In year 3, a billing analysis will be conducted between participants and a control group.

### **CHANGE A LIGHT– SAVE THE WORLD**

#### **PROGRAM DESCRIPTION**

Changing the world starts with simple actions. When you replace a light bulb or fixture in your home with one that has earned the U.S. government's ENERGY STAR rating, you contribute to a cleaner environment while saving yourself energy, money and time buying and changing lights in your home. Lighting that has earned the ENERGY STAR® rating prevents greenhouse gas emissions by meeting strict energy efficiency guidelines set by the US Environmental Protection Agency and US Department of Energy. ENERGY STAR® encourages every American to change out the 5 fixtures they use most at home (or the light bulbs in them) to ENERGY STAR® qualified lighting, to save

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themselves more than \$60 every year in energy costs.

Every fall, ENERGY STAR® partner retailers, manufacturers, utilities, and state organizations come together to make this change even easier. These partners are working to bring more energy-efficient lighting choices to store shelves than ever before. ENERGY STAR® qualified lighting uses two thirds less energy and lasts 6 to 10 times longer than traditional lighting. When you save energy, you not only save money on your utility bills, you also help to protect our environment. KCP&L will contribute funds annually to the state agencies that are working with the EPA and Energy Star to promote this program in the KCP&L service territory. KCP&L expects most of the funds to be used for point of purchase rebates for CFLs.

### **EVALUATION**

KCP&L will rely on evaluations conducted by the EPA and ENERGY STAR®.

## **COOL HOMES PROGRAM**

### **PROGRAM DESCRIPTION**

The Cool Homes Program will encourage residential customers to purchase and install energy-efficient central air conditioning and heat pumps by providing financial incentives to offset a portion of the equipment's higher initial cost. The program's long-range goal is to encourage contractors/distributors to use energy efficiency as a marketing tool, thereby stocking and selling more efficient units and moving the entire CAC and heat pump market toward greater energy efficiency. Incentives will be set at approximately 50% of incremental cost. SEER 13.0 and higher efficiency equipment will be rebated in 2005. Since federal standards are set to be increased from 10 SEER to 13 SEER in 2006, KCP&L will modify the 2006 incentives to only rebate SEER levels at 15.0 and above.

One important feature of the program that will begin immediately is to offer training in Manual J calculations and System Charging and Airflow for HVAC contractors. Manual J is the industry standard residential load calculation method. The training offers step-by-step examples of properly sizing equipment and also addresses principles of heat transfer. The training teaches HVAC contractors to accurately perform and document cooling load calculations and reduces over-sizing. The System Charging and Airflow course addresses airflow and charging procedures and standards and includes hands-on training in the use of testing equipment. Once enough contractors have undergone this training, KCP&L may mandate that these calculations take place in order to qualify for the incentive.

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### **EVALUATION**

Evaluation will include random on-site inspections and engineering analysis. Spot metering and runtime data will also be collected to verify the connected load and full load hour estimates used in the engineering analysis.

### **ENERGY STAR® HOMES – NEW CONSTRUCTION**

#### **PROGRAM DESCRIPTION**

This program will require that new homes be constructed to a standard at least 30 percent more energy efficient than the 1993 national Model Energy Code. These savings are based on heating, cooling, and hot water energy use and are typically achieved through a combination of building envelope upgrades, high performance windows, controlled air infiltration, upgraded heating and air conditioning systems, tight duct systems, and upgraded water-heating equipment.

Homes are qualified as an ENERGY STAR® with use of the Builder Option Packages (BOP). BOPs represent a set of construction specifications for a specific climate zone. BOPs specify performance levels for the thermal envelope, insulation, windows, orientation, HVAC system and water heating efficiency for a specific climate zone that meet the standard. The ENERGY STAR® Homes program will offer technical services and financial incentives to builders while marketing the homes' benefits to buyers. Scaled incentives will be provided to homes that are qualified as ENERGY STAR®.

### **EVALUATION**

Evaluation will include random on-site inspections and engineering analysis. Billing analysis will be conducted in year 3 between participant and control groups.

### **ONLINE ENERGY INFORMATION AND ANALYSIS PROGRAM USING NEXUS® COMMERCIAL SUITE**

#### **PROGRAM DESCRIPTION**

The online energy information and analysis program allows all business and non-profit customers with computers to access their billing information and compare their usage on a daily, weekly, monthly or annual basis, analyze what end uses make up what percent of their usage, and access ways to save energy by end use through a searchable resource center. Targeted case studies provide ideas relevant to the customer's industry. This tool also allows the user to analyze why their bill may have changed from one month to another. A business comparison also

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displays usage benchmarking data versus similar types of businesses.

### **EVALUATION**

Since this is an informational program and any potential savings will be difficult, if not impossible, to accurately measure, KCP&L does not propose to evaluate the program for energy savings. KCP&L will provide reports on usage.

## **C&I ENERGY AUDIT**

### **PROGRAM DESCRIPTION**

KCP&L will offer rebates to customers to cover 50% of the cost of an energy audit. In order to receive the rebate, the customer must implement at least one of the audit recommendations that qualify for a KCP&L C&I custom rebate. The energy audit rebate will be set at 50% of the audit cost up to \$300 for customers with facilities less than 25,000 square feet and up to \$500 for customers with facilities over 25,000 square feet. Energy audits must be performed by certified commercial energy auditors. Customers may choose their own auditor or KCP&L can recommend one. Customers with multiple buildings will be eligible for multiple audit rebates.

### **EVALUATION**

KCP&L will track the effectiveness of this program through the evaluations done for the C&I Custom Rebate Program.

## **C&I CUSTOM REBATE - RETROFIT**

### **PROGRAM DESCRIPTION**

The C&I Custom Rebate Retrofit program will provide rebates to C&I customers that install, replace or retrofit qualifying electric savings measures including HVAC systems, motors, lighting, pumps, etc. All custom rebates will be individually determined and analyzed to ensure that they pass the Societal Benefit/Cost Test. Any measure that is pre-qualified (evaluated prior to being installed) must produce a Societal Benefit/Cost test result of 1.0 or higher.

Custom rebates are calculated as the lesser of the following:

- A buydown to a two year payback
- 50% of the incremental cost

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One customer may submit multiple rebate applications for different measures. Each individual measure will be evaluated on its own merits. Similar measures that are proposed in different facilities or buildings will be evaluated separately. However, no customer, including those with multiple facilities or buildings, may receive more than \$40,000 in incentives for any program year.

As noted in the C&I Energy Audit program description, that program is designed to encourage customers to implement audit recommendations that would qualify for rebates under the C&I Custom Rebate Program.

### **EVALUATION**

By design, the custom rebate program is self-evaluating. Impacts are based upon detailed engineering analysis.

## **C&I CUSTOM REBATE – NEW CONSTRUCTION**

### **PROGRAM DESCRIPTION**

The C&I Custom Rebate New Construction will provide rebates to C&I customers that install qualifying electric savings measures including HVAC systems, motors, lighting, pumps, etc. All custom rebates will be individually determined and analyzed to ensure that they pass the Societal Benefit/Cost Test. Any measure that is pre-qualified (evaluated prior to being installed) must produce a Societal Benefit/Cost test result of 1.0 or higher.

Custom rebates are calculated as the lesser of the following:

- A buydown to a two year payback
- 50% of the incremental cost

One customer may submit multiple rebate applications for different measures. Each individual measure will be evaluated on its own merits. Similar measures that are proposed in different facilities or buildings will be evaluated separately. However, no customer, including those with multiple facilities or buildings, may receive more than \$40,000 in incentives for any program year.

Another component of this program is an online new construction guide that will provide information to commercial builders and developers on energy efficiency in new construction. It first allows the builder or developer to identify the type of new construction building that is being planned, i.e. office building, community center, fire station. It then lists a variety of environmental and energy efficiency options and guides the builder or developer in prioritizing investments for the best results. A sample of this software is available for viewing at <http://seattle.bnim.com/>. KCP&L proposes to build a similar site for the Kansas

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City metropolitan area but enhance it with features that tie into our rates and will allow developers and builders to plan buildings that can maximize our rates.

### **EVALUATION**

By design, the custom rebate program is self-evaluating. Impacts are based upon detailed engineering analysis.

## **BUILDING OPERATOR CERTIFICATION PROGRAM**

### **PROGRAM DESCRIPTION**

The Building Operator Certification (BOC) Program is a market transformation effort to train facility operators in efficient building operations and management (O&M), establish recognition of and value for certified operators, support the adoption of resource-efficient O&M as the standard in building operations, and create a self-sustaining entity for administering and marketing the training. This program requires a lot of effort and manpower. KCP&L cannot accomplish the program objectives alone. In year one of this program, KCP&L will work with the Missouri Department of Natural Resources to build a partnership with other Missouri stakeholders (sponsors). Once this has been accomplished, the program will begin to offer customers the Building Operator Training and Certification (BOC) program. The program will use a portion of its sponsor's funds (including the funds provided by KCP&L) to license the BOC curriculum from the Northwest Energy Efficiency Council (NEEC), its developer. Building operators that attend the training course will be expected to pay the cost of the course, less a \$100 rebate that will be issued upon successful completion of all course requirements. The program is expected to attract customers with large facilities (over 250,000 sq. ft.) that employ full time building operators.

### **EVALUATION**

KCP&L will track the effectiveness of this program through the evaluations done by the Missouri Department of Natural Resources.

## **MARKET RESEARCH**

### **PROGRAM DESCRIPTION**

The market research component of this program will concentrate on specific opportunities to expand program offerings. Of particular interest will be expanding rebates to other ENERGY STAR® rated appliances such as washing machines; investigating the potential for a 2<sup>nd</sup> refrigerator pickup program and



## **APPENDIX B**

offering incentives to small commercial customers for ENERGY STAR® rated office equipment.

### **3. DEMAND RESPONSE PROGRAMS**

#### **AIR CONDITIONING CYCLING**

##### **PROGRAM DESCRIPTION**

The Air Conditioning Cycling (ACC) is a program by which KCP&L can reduce residential and small commercial air conditioning load during peak summer days. The company achieves this load reduction by sending a paging signal to a control device attached to the customer's air conditioner. The control device then turns the air conditioner off and on over a period of time depending on the control and load reduction strategy established by the company.

##### **EVALUATION**

This evaluation will contribute significantly to the decision to extend the program.

- Collect customer hourly usage data for the first three summers.
- Evaluate capacity and energy impacts at the end of the third summer season.

#### **THE ALLIANCE, AN ENERGY PARTNERSHIP PROGRAM**

##### **PROGRAM DESCRIPTION**

The Alliance, an energy partnership program, is a curtailment and distributed generation program designed to be a partnership with commercial and industrial customers. It is comprised of three coordinated programs. These are MPower, Distributed Generation and Commercial Lighting Curtailment. The program provides incentives to customers to reduce their load or add customer generation to the grid to offset the higher costs KCPL would incur without the reduced load or added customer generation.

MPower is a contracted load curtailment program for large commercial and industrial customers that provide a capacity and energy payment to participating customers to curtail their usage during summer months when high electric demand occurs. Customers are eligible for participation in the program by providing a minimum load reduction of 200 kW during KCP&L's high usage/high cost periods. The Missouri Public Service Commission and the Kansas Commerce Commission have approved the program tariff, currently known as Peak Load Curtailment Credit (PLCC). A new tariff will be filed as this

## **APPENDIX B**

two-part incentive program becomes finalized. The customer contract could extend over several years.

Distributed Generation is a program in which KCP&L contracts with a customer that has on-site generation to use their generator when needed. This program captures additional value from the customer's generator and provides support to the utility grid. The customer contract is expected to be over several years.

Commercial Lighting Curtailment is a program in which KCP&L contracts with commercial customers to reduce their lighting load when requested. This is accomplished by permanently installing control devices that either reduce the voltage to the lights or turn off perimeter lighting in office buildings. In either case new equipment will be installed to achieve this load reduction. The load curtailment contract will extend over several years.

### **EVALUATION**

This evaluation will contribute significantly to the decision to extend the program.

- Customer research
  - Focus groups – Sept '05 and Sept '06
  - Telephone surveys – Oct '05 and Oct '06
- Process evaluation – Dec '05 and Dec '06
- Impact evaluation – Nov '05 and Nov '06

Rev 2/3/06 to separate

AA from EE

Program	Type	Segment	NC/Ret	Allocation Comments	Allocation		Year 1 Estimates								
					MO	KS	\$ Total	\$ MO	\$ KS	kW Total	kW MO	kW KS	kWh Total	kWh MO	kWh KS
ANNUAL TOTAL							\$6,441,583	\$3,520,340	\$2,921,240	53,743	30,363	23,379	9,476,868	5,360,226	4,116,637
CUMMULATIVE TOTAL							\$6,441,583	\$3,520,340	\$2,921,240	53,743	30,363	23,379	9,476,868	5,360,226	4,116,637
Annual DR Totals							\$3,956,733	\$1,718,466	\$1,848,267	49,977	28,320	21,656	1,964,327	1,137,555	826,772
Cummulative DR Totals							\$3,956,733	\$1,718,466	\$1,848,267	49,977	28,320	21,656	1,964,327	1,137,555	826,772
Annual EE Totals							\$2,591,750	\$1,414,561	\$1,177,189	3,665	1,958	1,707	7,096,000	3,873,193	3,222,807
Cummulative EE Totals							\$2,591,750	\$1,414,561	\$1,177,189	3,665	1,958	1,707	7,096,000	3,873,193	3,222,807
Annual AFF Total							\$483,100	\$387,312	\$95,784	101	85	16	416,541	349,478	67,058
Cummulative AFF Totals							\$483,100	\$387,312	\$95,784	101	85	16	416,541	349,478	67,058
<b>Affordability</b>															
Affordable New Homes	Dir Imp	R-Aff	NC	Currently allocated by % of low income in each state. Incentives to be by actual.	83.9%	16.1%	\$16,000	\$13,424	\$2,573	15	13	2	25,360	21,277	4,078
Low Income Weatherization (non-KCMO)	Dir Imp	R-Aff	Ret	By est. low income population without KCMO	20.4%	79.8%	\$117,100	\$23,888	\$93,212						
Low income WX-KCMO					100%	0%	\$350,000	\$350,000	\$0	86	72	14	391,181	328,201	62,980
Allocation for total				By est. low income population	83.9%	16.1%									
<b>Energy Efficiency</b>															
Online EE Information/analysis (Nexus)	Educ	R	Ret	Set up/software/monthly maintenance by %. User fee to be by actual. Can be made available by state only.	51.5%	48.5%	\$281,750	\$144,969	\$136,781	0	0	0	0	0	0
Home Performance-Training	Dir Imp	R	Ret	Can be limited by state but with great difficulty. Crews work both states.	51.5%	48.5%	\$177,500	\$91,342	\$86,158	0	0	0	0	0	0
Change a Light-Save the World	Dir Imp	R	Ret	Promotion by %. Incentives to be by actual. Can be by state.	51.5%	48.5%	\$152,500	\$78,477	\$74,024	1,125	579	546	2,475,000	1,273,835	1,201,365
Cool Homes Program	Dir Imp	R	Ret	Promotion by %. Incentives to be by actual. Can be by state.	51.5%	48.5%	\$955,000	\$491,443	\$463,557	1,668	858	810	1,948,000	1,002,441	945,559
Energy Star Homes	Dir Imp	R	NC	Promotion by %. Incentives to be by actual. Can be by state.	51.5%	48.5%	\$80,000	\$41,188	\$38,832	0	0	0	0	0	0
PAYS-type Concept	Dir Imp	R	Ret	MO only	100%	0%	\$25,000	\$25,000	\$0	0	0	0	0	0	0
Online EE information/analysis (Nexus)	Educ	C	Ret	Set up/software/monthly maintenance by %. User fee to be by actual. Can be made available by state only.	59.8%	40.3%	\$0	\$0	\$0	0	0	0	0	0	0
C&I Energy Audits	Educ	Comm	Ret	Promotion by %. Incentives to be by actual. Can be by state.	59.8%	40.3%	\$0	\$0	\$0	0	0	0	0	0	0
Custom Rebates	Dir Imp	M&L C&I	Ret	Promotion by %. Incentives to be by actual. Can be by state.	59.8%	40.3%	\$30,000	\$17,925	\$12,075	0	0	0	0	0	0
Custom Rebates	Dir Imp	M&L C&I	NC	Promotion by %. Incentives to be by actual. Can be by state.	59.8%	40.3%	\$707,500	\$422,731	\$284,769	872	521	351	2,673,000	1,597,118	1,075,883
Building Operator Certification	Dir Imp	M&L C&I	Ret	Can be by state.	59.8%	40.3%	\$105,000	\$62,738	\$42,263	0	0	0	0	0	0
Market Research	0	All	0	By % only; cannot be separated.	50.0%	50.0%	\$77,500	\$38,750	\$38,750	0	0	0	0	0	0
<b>Demand Response</b>															
Residential A/C Cycling					42.3%	57.7%	\$1,503,934	\$636,122	\$867,712	4,532	1,917	2,615	23,537	9,956	13,581
Commercial Curtailment					58.1%	41.9%	\$1,862,899	\$1,082,344	\$780,555	45,445	26,404	19,041	1,940,790	1,127,599	813,191

Budget includes capital & O&M

Schedule ADD-1

Appendix B-1

Rev 2/3/05 to separate

AA from EE

Program	Type	Segment	NC/Ret	Allocation Comments	Allocation		Year 2 Estimates								
					MO	KS	\$ Total	\$ MO	\$ KS	KW Total	kW MO	kW KS	KWh Total	KWh MO	kWh KS
ANNUAL TOTAL							\$6,935,244	\$4,952,111	\$3,983,127	25,985	14,078	11,909	15,072,964	8,553,823	6,519,131
CUMMULATIVE TOTAL							\$15,376,627	\$8,472,451	\$6,604,367	79,728	44,439	35,269	24,549,832	13,914,049	10,635,768
Annual DR Totals							\$3,848,784	\$2,006,589	\$1,842,205	19,281	10,378	8,903	523,584	267,215	226,370
Cummulative DR Totals							\$7,315,527	\$3,725,055	\$3,590,472	69,258	38,699	30,559	2,487,911	1,434,770	1,053,141
Annual EE Totals							\$4,437,350	\$2,494,785	\$1,942,585	6,579	3,593	2,986	14,062,500	7,848,116	6,214,384
Cummulative EE Totals							\$7,029,100	\$3,909,347	\$3,119,753	10,244	5,551	4,693	21,156,500	11,721,309	9,437,191
Annual AFF Total							\$549,100	\$450,736	\$98,357	125	105	20	486,880	408,492	78,378
Cummulative AFF Totals							\$1,032,200	\$838,049	\$194,142	226	180	38	803,421	757,670	145,436
<b>Affordability</b>															
Affordable New Homes	Dir Imp	R-Aff	NC	Currently allocated by % of low income in each state. Incentives to be by actual.	83.9%	16.1%	\$32,000	\$26,848	\$5,146	29	24	5	50,720	42,554	8,166
Low Income Weatherization (non-KCMO)	Dir Imp	R-Aff	Ret	By est. low income population without KCMO	20.4%	79.6%	\$117,100	\$23,888	\$93,212						
Low Income WX-KCMO					100%	0%	\$400,000	\$400,000	\$0	96	81	15	436,160	365,838	70,222
Allocation for total				By est. low income population	83.9%	16.1%									
<b>Energy Efficiency</b>															
Online EE Information/analysis (Nexus)	Educ	R	Ret	Set up/software/monthly maintenance by %. User fee to be by actual. Can be made available by state only.	51.5%	48.5%	\$223,950	\$115,245	\$108,705	0	0	0	0	0	0
Home Performance-Training	Dir Imp	R	Ret	Can be limited by state but with great difficulty. Crews work both states.	51.5%	48.5%	\$127,500	\$65,612	\$61,889	0	0	0	0	0	0
Change a Light-Save the World	Dir Imp	R	Ret	Promotion by %. Incentives to be by actual. Can be by state.	51.5%	48.5%	\$152,500	\$78,477	\$74,024	1,125	579	546	2,475,000	1,273,835	1,201,365
Cool Homes Program	Dir Imp	R	Ret	Promotion by %. Incentives to be by actual. Can be by state.	51.5%	48.5%	\$1,355,000	\$697,283	\$657,717	2,490	1,281	1,209	2,907,000	1,495,942	1,411,058
Energy Star Homes	Dir Imp	R	NC	Promotion by %. Incentives to be by actual. Can be by state.	51.5%	48.5%	\$545,000	\$280,457	\$264,543	486	240	226	1,303,500	670,781	632,719
PAYS-type Concept	Dir Imp	R	Ret	MO only	100%	0%	\$125,000	\$125,000	\$0	0	0	0	0	0	0
Online EE information/analysis (Nexus)	Educ	C	Ret	Set up/software/monthly maintenance by %. User fee to be by actual. Can be made available by state only.	59.8%	40.3%	\$240,900	\$143,938	\$96,962	0	0	0	0	0	0
C&I Energy Audits	Educ	Comm	Ret	Promotion by %. Incentives to be by actual. Can be by state.	59.8%	40.3%	\$60,000	\$35,850	\$24,150	0	0	0	0	0	0
Custom Rebates	Dir Imp	M&L C&I	Ret	Promotion by %. Incentives to be by actual. Can be by state.	59.8%	40.3%	\$502,500	\$300,244	\$202,256	697	416	281	2,138,000	1,277,455	860,545
Custom Rebates	Dir Imp	M&L C&I	NC	Promotion by %. Incentives to be by actual. Can be by state.	59.8%	40.3%	\$922,500	\$551,194	\$371,306	1,301	777	524	3,989,000	2,383,428	1,605,573
Building Operator Certification	Dir Imp	M&L C&I	Ret	Can be by state.	59.8%	40.3%	\$105,000	\$62,738	\$42,263	500	299	201	1,250,000	746,875	503,125
Market Research	0	All	0	By % only; cannot be separated	50.0%	50.0%	\$77,500	\$38,750	\$38,750	0	0	0	0	0	0
<b>Demand Response</b>															
Residential A/C Cycling					42.3%	57.7%	\$1,820,634	\$770,128	\$1,050,506	5,215	2,206	3,009	44,226	18,708	25,519
Commercial Curtailment					58.1%	41.9%	\$2,128,180	\$1,236,461	\$891,699	14,066	8,172	5,894	479,358	278,507	200,851

Budget includes capital & O&M

Schedule ADD-1

Appendix B-1

Rev 2/2005 to separate

AA from EE

Program	Type	Segment	NC/Ret	Allocation Comments	Allocation		Year 3 Estimates								
					MO	KS	\$ Total	\$ MO	\$ KS	kW Total	kW MO	kW KS	kWh Total	kWh MO	kWh KS
ANNUAL TOTAL							\$10,132,247	\$5,675,353	\$4,456,896	22,500	12,138	10,362	17,544,272	9,930,485	7,613,797
CUMMULATIVE TOTAL							\$25,508,074	\$14,147,804	\$11,381,263	102,228	56,578	45,650	42,094,104	23,844,514	18,249,565
Annual DR Totals							\$4,285,047	\$2,197,458	\$2,087,589	14,975	7,987	6,988	592,050	335,027	257,023
Cummulative DR Totals							\$11,800,574	\$5,922,513	\$5,678,060	84,233	46,666	37,547	3,079,961	1,769,797	1,310,164
Annual EE Totals							\$5,205,600	\$2,983,726	\$2,241,874	7,390	4,038	3,352	16,419,000	8,148,064	7,270,936
Cummulative EE Totals							\$12,234,700	\$6,873,073	\$5,361,627	17,634	9,569	8,045	37,577,500	20,869,374	18,708,127
Annual AFF Total							\$641,600	\$514,169	\$127,423	135	113	22	533,222	447,373	85,839
Cummulative AFF Totals							\$1,673,800	\$1,352,218	\$321,565	361	303	58	1,436,643	1,205,343	231,274
<b>Affordability</b>															
Affordable New Homes	Dir Imp	R-Aff	NC	Currently allocated by % of low income in each state. Incentives to be by actual.	83.9%	16.1%	\$39,500	\$33,141	\$6,352	29	24	5	50,720	42,554	8,156
Low Income Weatherization (non-KCMO)	Dir Imp	R-Aff	Ret	By est. low income population without KCMO	20.4%	79.6%	\$152,100	\$31,028	\$121,072						
Low Income WX-KCMO					100%	0%	\$450,000	\$450,000	\$0	106	89	17	482,502	404,819	77,683
Allocation for total				By est. low income population	83.9%	16.1%									
<b>Energy Efficiency</b>															
Online EE Information/analysis (Nexus)	Educ	R	Ret	Set up/software/monthly maintenance by %. User fee to be by actual. Can be made available by state only.	51.5%	48.5%	\$201,300	\$103,589	\$97,711	0	0	0	0	0	0
Home Performance-Training	Dir Imp	R	Ret	Can be limited by state but with great difficulty. Crews work both states.	51.5%	48.5%	\$147,500	\$75,904	\$71,597	0	0	0	0	0	0
Change a Light-Save the World	Dir Imp	R	Ret	Promotion by %. Incentives to be by actual. Can be by state.	51.5%	48.5%	\$152,500	\$78,477	\$74,024	1,125	579	548	2,475,000	1,273,635	1,201,365
Cool Homes Program	Dir Imp	R	Ret	Promotion by %. Incentives to be by actual. Can be by state.	51.5%	48.5%	\$1,405,000	\$723,013	\$681,987	2,490	1,281	1,209	2,807,000	1,495,942	1,411,058
Energy Star Homes	Dir Imp	R	NC	Promotion by %. Incentives to be by actual. Can be by state.	51.5%	48.5%	\$985,000	\$506,881	\$478,119	933	480	453	2,807,000	1,341,562	1,265,438
PAYS-type Concept	Dir Imp	R	Ret	MO only	100%	0%	\$250,000	\$250,000	\$0	0	0	0	0	0	0
Online EE information/analysis (Nexus)	Educ	C	Ret	Set up/software/monthly maintenance by %. User fee to be by actual. Can be made available by state only.	59.8%	40.3%	\$171,800	\$102,651	\$69,150	0	0	0	0	0	0
C&I Energy Audits	Educ	Comm	Ret	Promotion by %. Incentives to be by actual. Can be by state.	59.8%	40.3%	\$60,000	\$35,850	\$24,150	0	0	0	0	0	0
Custom Rebates	Dir Imp	M&L C&I	Ret	Promotion by %. Incentives to be by actual. Can be by state.	59.8%	40.3%	\$727,500	\$434,681	\$292,819	1,041	622	419	3,191,000	1,906,623	1,284,378
Custom Rebates	Dir Imp	M&L C&I	NC	Promotion by %. Incentives to be by actual. Can be by state.	59.8%	40.3%	\$922,500	\$551,194	\$371,306	1,301	777	524	3,989,000	2,383,428	1,605,573
Building Operator Certification	Dir Imp	M&L C&I	Ret	Can be by state.	59.8%	40.3%	\$105,000	\$62,738	\$42,263	500	299	201	1,250,000	746,875	503,125
Market Research	0	All	0	By % only; cannot be separated	50.0%	50.0%	\$77,500	\$38,750	\$38,750	0	0	0	0	0	0
<b>Demand Response</b>															
Residential AFC Cycling					42.3%	57.7%	\$1,849,076	\$782,156	\$1,066,917	4,518	1,911	2,607	56,669	23,971	32,698
Commercial Curtailment					58.1%	41.9%	\$2,435,971	\$1,415,299	\$1,020,672	10,457	6,076	4,382	535,361	311,056	224,325

Budget includes capital & O&M

Rev 2/3/06 to separate

AA from EE

Program	Type	Segment	NC/Ret	Allocation Comments	Allocation		Year 4 Estimates								
					MO	KS	\$ Total	\$ MO	\$ KS	KW Total	KW MO	KW KS	kWh Total	kWh MO	kWh KS
ANNUAL TOTAL							\$11,883,239	\$8,545,076	\$5,318,157	39,634	21,658	17,976	18,289,046	10,369,124	7,919,912
CUMMULATIVE TOTAL							\$37,372,313	\$20,692,880	\$16,879,410	141,862	78,236	63,626	60,383,150	34,213,638	26,169,476
Annual DR Totals							\$6,113,589	\$3,083,769	\$3,029,821	32,099	17,498	14,601	1,291,845	735,949	555,898
Cummulative DR Totals							\$17,714,183	\$9,006,282	\$8,707,881	116,332	64,183	52,149	4,371,806	2,505,746	1,866,060
Annual EE Totals							\$5,100,550	\$2,910,571	\$2,189,979	7,390	4,038	3,352	16,419,000	9,148,064	7,270,936
Cummulative EE Totals							\$17,335,250	\$9,783,644	\$7,551,606	25,024	13,628	11,396	53,696,500	30,017,438	23,979,062
Annual AFF Total							\$649,100	\$550,738	\$98,357	145	122	23	678,201	485,111	83,080
Cummulative AFF Totals							\$2,322,900	\$1,902,954	\$419,822	508	425	81	2,014,844	1,690,454	324,354
<b>Availability</b>															
Affordable New Homes	Dir Imp	R-Aff	NC	Currently allocated by % of low income in each state. Incentives to be by actual.	83.9%	16.1%	\$32,000	\$26,848	\$5,146	29	24	5	50,720	42,554	8,156
Low Income Weatherization (non-KCMO)	Dir Imp	R-Aff	Ret	By est. low income population without KCMO	20.4%	79.6%	\$117,100	\$23,886	\$93,212						
Low income WX-KCMO					100%	0%	\$500,000	\$500,000	\$0	118	97	19	527,481	442,557	84,924
Allocation for total				By est. low income population	83.9%	16.1%									
<b>Energy Efficiency</b>															
Online EE Information/analysis (Nexus)	Educ	R	Ret	Set up/software/monthly maintenance by %. User fee to be by actual. Can be made available by state only.	51.5%	48.5%	\$205,350	\$105,673	\$99,677	0	0	0	0	0	0
Home Performance-Training	Dir Imp	R	Ret	Can be limited by state but with great difficulty. Crews work both states.	51.5%	48.5%	\$127,500	\$65,612	\$61,889	0	0	0	0	0	0
Change a Light-Save the World	Dir Imp	R	Ret	Promotion by %. Incentives to be by actual. Can be by state.	51.5%	48.5%	\$152,500	\$78,477	\$74,024	1,125	579	546	2,475,000	1,273,635	1,201,365
Cool Homes Program	Dir Imp	R	Ret	Promotion by %. Incentives to be by actual. Can be by state.	51.5%	48.5%	\$1,355,000	\$697,283	\$657,717	2,490	1,281	1,209	2,907,000	1,495,942	1,411,058
Energy Star Homes	Dir Imp	R	NC	Promotion by %. Incentives to be by actual. Can be by state.	51.5%	48.5%	\$935,000	\$481,151	\$453,849	933	480	453	2,607,000	1,341,562	1,265,438
PAYS-type Concept	Dir Imp	R	Ret	MO only	100%	0%	\$250,000	\$250,000	\$0	0	0	0	0	0	0
Online EE information/analysis (Nexus)	Educ	C	Ret	Set up/software/monthly maintenance by %. User fee to be by actual. Can be made available by state only.	59.8%	40.3%	\$172,700	\$103,188	\$69,512	0	0	0	0	0	0
C&I Energy Audits	Educ	Comm	Ret	Promotion by %. Incentives to be by actual. Can be by state.	59.8%	40.3%	\$60,000	\$35,850	\$24,150	0	0	0	0	0	0
Custom Rebates	Dir Imp	M&L C&I	Ret	Promotion by %. Incentives to be by actual. Can be by state.	59.8%	40.3%	\$737,500	\$440,656	\$296,844	1,041	622	419	3,191,000	1,906,823	1,284,378
Custom Rebates	Dir Imp	M&L C&I	NC	Promotion by %. Incentives to be by actual. Can be by state.	59.8%	40.3%	\$922,500	\$551,194	\$371,306	1,301	777	524	3,989,000	2,383,428	1,605,573
Building Operator Certification	Dir Imp	M&L C&I	Ret	Can be by state.	59.8%	40.3%	\$105,000	\$62,738	\$42,263	500	298	201	1,250,000	746,875	503,125
Market Research	O	All	O	By % only, cannot be separated	50.0%	50.0%	\$77,500	\$38,750	\$38,750	0	0	0	0	0	0
<b>Demand Response</b>															
Residential A/C Cycling					42.3%	57.7%	\$2,983,461	\$1,253,544	\$1,709,917	7,260	3,084	4,206	92,486	39,122	53,364
Commercial Curtailment					58.1%	41.9%	\$3,150,128	\$1,830,225	\$1,319,904	24,809	14,414	10,395	1,199,359	696,827	502,531

Budget includes capital & O&M

Rev 2/3/06 to separate

AA from EE				Allocation		Year 5									
Program	Type	Segment	NC/Ret	Allocation Comments	MO	KS	\$ Total	\$ MO	\$ KS	kW Total	kW MO	kW KS	kWh Total	kWh MO	kWh KS
ANNUAL TOTAL							\$15,409,899	\$8,301,495	\$7,108,199	81,531	33,800	27,931	19,466,069	11,059,733	8,406,326
CUMMULATIVE TOTAL							\$52,782,013	\$28,994,374	\$23,787,606	203,393	111,836	91,557	79,849,220	45,273,372	34,575,802
Annual DR Totals							\$9,805,249	\$4,787,667	\$4,817,582	53,986	29,431	24,554	2,423,889	1,388,821	1,035,068
Cummulative DR Totals							\$27,319,413	\$13,793,948	\$13,525,463	170,318	93,815	76,703	6,795,696	3,894,567	2,901,126
Annual EE Totals							\$5,105,350	\$2,913,091	\$2,192,259	7,380	4,038	3,352	16,419,000	9,148,064	7,270,936
Cummulative EE Totals							\$22,440,600	\$12,696,734	\$9,743,866	32,414	17,666	14,748	70,415,500	39,185,502	31,249,998
Annual AFF Total							\$689,100	\$600,736	\$66,357	155	130	25	623,180	522,848	100,322
Cummulative AFF Totals							\$3,022,000	\$2,503,891	\$518,279	661	555	106	2,638,024	2,213,302	424,675
<b>Affordability</b>															
Affordable New Homes	Dir Imp	R-Aff	NC	Currently allocated by % of low income in each state. Incentives to be by actual.	83.9%	16.1%	\$32,000	\$26,848	\$5,146	29	24	5	50,720	42,554	8,156
Low Income Weatherization (non-KCMO)	Dir Imp	R-Aff	Ret	By est. low income population without KCMO	20.4%	79.9%	\$117,100	\$23,888	\$93,212						
Low Income WX-KCMO					100%	0%	\$550,000	\$550,000	\$0	126	106	20	572,480	480,294	92,186
Allocation for total				By est. low income population	83.9%	16.1%									
<b>Energy Efficiency</b>															
Online EE Information/analysis (Nexus)	Educ	R	Ret	Set up/software/monthly maintenance by %. User fee to be by actual. Can be made available by state only.	51.5%	48.5%	\$209,550	\$107,834	\$101,716	0	0	0	0	0	0
Home Performance-Training	Dir Imp	R	Ret	Can be limited by state but with great difficulty. Crews work both states.	51.5%	48.5%	\$127,500	\$65,612	\$61,889	0	0	0	0	0	0
Change a Light-Save the World	Dir Imp	R	Ret	Promotion by %. Incentives to be by actual. Can be by state.	51.5%	48.5%	\$152,500	\$78,477	\$74,024	1,125	579	546	2,475,000	1,273,635	1,201,365
Cool Homes Program	Dir Imp	R	Ret	Promotion by %. Incentives to be by actual. Can be by state.	51.5%	48.5%	\$1,355,000	\$697,283	\$657,717	2,490	1,281	1,209	2,907,000	1,495,942	1,411,058
Energy Star Homes	Dir Imp	R	NC	Promotion by %. Incentives to be by actual. Can be by state.	51.5%	48.5%	\$935,000	\$481,151	\$453,849	933	480	453	2,807,000	1,341,562	1,265,438
PAYS-type Concept	Dir Imp	R	Ret	MO only	100%	0%	\$250,000	\$250,000	\$0	0	0	0	0	0	0
Online EE information/analysis (Nexus)	Educ	C	Ret	Set up/software/monthly maintenance by %. User fee to be by actual. Can be made available by state only.	59.8%	40.3%	\$173,300	\$103,547	\$69,753	0	0	0	0	0	0
C&I Energy Audits	Educ	Comm	Ret	Promotion by %. Incentives to be by actual. Can be by state.	59.8%	40.3%	\$60,000	\$35,850	\$24,150	0	0	0	0	0	0
Custom Rebates	Dir Imp	M&L C&I	Ret	Promotion by %. Incentives to be by actual. Can be by state.	59.8%	40.3%	\$737,500	\$440,656	\$296,844	1,041	622	419	3,191,000	1,906,623	1,284,378
Custom Rebates	Dir Imp	M&L C&I	NC	Promotion by %. Incentives to be by actual. Can be by state.	59.8%	40.3%	\$922,500	\$551,194	\$371,306	1,301	777	524	3,989,000	2,383,428	1,605,573
Building Operator Certification	Dir Imp	M&L C&I	Ret	Can be by state	59.8%	40.3%	\$105,000	\$62,738	\$42,263	500	299	201	1,250,000	746,875	503,125
Market Research	0	All	0	By % only; cannot be separated	50.0%	50.0%	\$77,500	\$38,750	\$38,750	0	0	0	0	0	0
<b>Demand Response</b>															
Residential A/C Cycling					42.3%	57.7%	\$5,018,878	\$2,122,985	\$2,895,892	12,242	5,179	7,064	123,156	52,095	71,061
Commercial Curtailment					56.1%	41.9%	\$4,566,373	\$2,864,893	\$1,821,890	41,743	24,253	17,491	2,300,733	1,336,726	964,007

Budget includes capital & O&M

	A	B	C	D	E	F	G
1	Allocation Schemes						
2							
3	Affordability Programs with KCMO						
4	Est. Low Income Accounts per MDNR-MO	58,114	53.82%				
5	Est. Low Income Accounts per Census-KS	11,131	16.08%				
6		69,246					
7							
8	Affordability Programs without KCMO						
9	Est. Low Income Accounts per MDNR-MO	2,852	26.40%				
10	Est. Low Income Accounts per Census-KS	11,131	78.60%				
11		13,983					% of poverty hous.
12							
13							
14	Agency	Counties	KCP&L Electric Accounts Household Poverty	# Individuals in Poverty Total Households Per County	% Individuals in Poverty of Total Individuals in Poverty % of Poverty Households to Total Per County	Total Households Per County	% of poverty hous. to Total Per County
15	BEK-CAP				12.34%	Agency	51%
16	ECKAN		32,145	629,760	5.10%	268,270	10,948
17	EDF		26,762	187,988	14.85%	1,477	187
18	GRAND TOTAL		58,410	620,761	7.12%	211,320	11,131
19							
20	Agency		Household Poverty	Total Households Per County	% of Poverty Households to Total Per County	KCP&L Electric Accounts by Agency	Estimated Accounts
21	Kansas City Dept. of Housing & Comm. Develop.		80,183	388,130	24.50%	225,683	56,262
22	Central Missouri Counties Human Dev Corp		1,102	3,836	28.73%	388	131
23	Green Hills Comm. Action Agency		1,892	5,736	29.50%	1	0
24	West Central Missouri Community Action Agency		4,664	30,188	15.48%	2,202	340
25	Missouri Valley Comm. Action Agency		18,681	62,200	31.84%	7,556	2,391
26	North East Community Action Corporation		2,783	8,188	30.04%	30	9
27	GRAND TOTAL-MO		120,085	478,288	25.05%	235,760	58,114
28	TOTAL without KCMO		29,802	111,138	26.81%	10,177	2,852
29							
30							
31							
32	Energy Efficiency						
33	By # of Customers: (does not include public street lights or other)	Res	Res	C&I	C&I		
34	MO (per Sep 30 2004 Form 1)	234,170	54.40%	31,803	55.47%		
35	KS (per Sep 30 2004 Form 1)	186,308	45.60%	25,389	44.53%		
36		430,478		56,972			
37							
38	By kWh Sales: (does not include public street lights or other)	Res	C&I				
39	MO (per Sep 30 2004 Form 1)	2,448,486,884	48.52%	5,742,502,858	64.03%		
40	KS (per Sep 30 2004 Form 1)	2,588,207,743	51.48%	3,225,823,781	35.97%		
41		5,046,694,727		8,968,432,739			
42							
43							
44	Average - MO		51.46%		59.75%		
45	Average - KS		48.54%		40.25%		
46							
47							
48							
49	Demand Response						
50	Residential A/C Cycles	Missouri	Kansas	Total			
51	Number of residential customers	234,170	196,308	430,478			
52	Percentage of eligible customers	46%	75%				
53	Number of customer with Central A/C	108,082	147,378	255,460			
54	Percentage of Total	45.9%	67.7%				
55							
56							
57	Commercial Curtailment						
58	kW of peak customer load for customer > 200 kW	945,258	578,779	1,524,037			
59	Percentage of Total	82%	38%				
60							
61	Number of Customers with Demand > 200 kW	1,187	1,013	2,210			
62	Percentage of Total	54%	48%				
63							
64	Average Percentage for Commercial	66.1%	41.9%				



**SCHEDULE ADD-2**

**THIS DOCUMENT CONTAINS  
CONFIDENTIAL INFORMATION NOT  
AVAILABLE TO THE PUBLIC  
ORIGINAL FILED UNDER SEAL**

**SCHEDULE ADD-3**

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CONFIDENTIAL INFORMATION NOT  
AVAILABLE TO THE PUBLIC  
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## **Kansas City Power & Light Company**

### **BUILDING OPERATOR CERTIFICATION PROGRAM**

The following information regarding KCP&L's Building Operator Certification Program is provided in compliance with Appendix A of the Commission's November 14, 2008 Final Order issued in Docket No. 08-GIMX-441-GIE. This Program is set forth in KCP&L's pending tariff Schedule 8, also referred to as Schedule BOC, provided with this filing.

#### **1. Program Description**

The Building Operator Certification (BOC) program (Program) is a competency-based training and certification for building operators, offering improved job skills and more comfortable and energy efficient facilities. The certification also provides a credential for professional development while offering employers a way to identify skilled operators.

Over 5,000 operators hold BOC certifications nationally. The certificate is registered with the Building Owners and Managers Institute (BOMI), the Association for Facilities Engineering (AFE) and the International Facilities Management Association (IFMA) for continuing education maintenance points.

The Program is licensed from the Northwest Energy Efficiency Council (NEEC) by program administrators across the country. NEEC is a non-profit regional consortium of utilities, government, public interest groups and the private sector dedicated to transforming markets for energy efficient products and services. NEEC provided support for the development of the BOC program. In the Midwest, the Midwest Energy Efficiency Alliance (MEEA) administers the Program. MEEA is a non-profit regional consortium of utilities, government, public interest groups and the private sector dedicated to transforming markets for energy efficient products and services.

In the KCP&L service territory, BOC Level I and Level II training courses will be offered. Both certification levels are earned by a combination of classroom training, written exams, and hands-on projects conducted at the operator's facility. Level I training emphasizes energy efficient building maintenance practices and is a series of eight courses conducted over seven months. Level II stresses advanced equipment troubleshooting and preventive maintenance and is a series of seven courses conducted over six months. Class sizes are typically between 18 and 25 students.

To encourage continued participation in the existing Program offered by KCP&L, for the first and second year of the proposed five-year Program offering, KCP&L will offer participants a rebate for a portion of their tuition cost. Each student in the class that is associated with a commercial property receiving electrical service from KCP&L and that successfully completes the certification process is eligible for the rebate. However, as the Program matures and as the market for BOC participants becomes saturated, it is anticipated that KCP&L will offer fewer classes and is proposing that no incentive be offered in Years 3-5.

Below is a description of the current BOC courses.

### **Level I Course Descriptions**

#### **BOC 101 - Building Systems Overview (1 Day)**

Provides an overview of preventive maintenance, energy efficiency principles, and fundamentals of building systems, equipment, and operations.

Project: Facility and Equipment Floor Plan

#### **BOC 102 - Energy Conservation Techniques (1 Day)**

Helps operators gain a better understanding of how energy is used in commercial buildings and how to identify and prioritize conservation opportunities.

Project: Energy Use Profile for Facility

#### **BOC 103 - HVAC Systems and Controls (2 Days)**

Focuses on operation and maintenance of equipment and components typically found in commercial buildings, including central heating, cooling, air and ventilating systems in buildings.

Project: Heating System Operational Review

#### **BOC 104 - Efficient Lighting Fundamentals (1 Day)**

Covers lighting fundamentals and types of lighting for economical and energy-efficient lighting systems.

Project: Lighting Survey for Facility

#### **BOC 105 - Operation and Maintenance Practices For Sustainable Buildings (1 Day)**

Focuses on a set of best practices for operations and maintenance that create and sustain green or high performance buildings.

#### **BOC 106 - Indoor Air Quality (1 Day)**

Introduces the basic causes of indoor air quality problems and begins to develop a method of diagnosis and solution.

#### **BOC 107 - Facility Electrical Systems (1 Day)**

Develops an understanding of how electricity is distributed in a facility and common electrical distribution problems.

Project: Electrical Distribution Sketch for Facility

### **Level II Course Descriptions**

#### **BOC 201 - Preventive Maintenance & Operations (1 Day-Core)**

Covers the step-by-step process for starting and operating a preventive maintenance program that produces energy savings and equipment reliability.

*BOC 202 - Advanced Electrical Diagnostics (1 Day-Core)*

Learn to locate and repair electrical opens, shorts, overloads, and high resistance.

Project: Power Quality Upgrade Plan

*BOC 203 - HVAC Troubleshooting & Maintenance (2 Days-Core)*

Learn to troubleshoot and improve the efficiencies of the primary heating, cooling and ventilation systems of commercial buildings.

Project: HVAC System Comparison

*BOC 204 - HVAC Controls & Optimization (1 Day-Core)*

Learn energy efficient operation, maintenance, and service of HVAC controls and related devices for central air systems commonly found in commercial buildings.

Project: Controls System Diagram

**Supplemental Courses: Two offered per course series**

*BOC 210 - Advanced Indoor Air Quality (1 Day)*

Learn to use the EPA recommended procedures for preventing and troubleshooting Indoor Air Quality problems for equipment and building operations.

*BOC 211 - Motors in Facilities (1 Day)*

Understand how motors work and identify their uses and applications in facilities.

*BOC 212 - Water Efficiency for Building Operators (1/2 Day)*

Identify water savings measures in commercial and institutional facilities through detection and repair of leaks, operational changes, and low-cost equipment improvements.

*BOC 213 - Mastering Electrical Control Circuits (1/2 Day)*

Introduces basic electric control concepts, wiring schematic fundamentals and blueprint to panel-board recognition.

*BOC 214 - Introduction to Building Commissioning (1 Day)*

Introduces the building commissioning process for new and existing buildings with an emphasis on existing building commissioning and the building operator's role.

*BOC 215 - Electric Motor Management (1/2 Day)*

Learn how to calculate power costs for electric motors, and to identify improvements in motor management practices that make big differences in system reliability and electricity bills.

*BOC 216 - Enhanced Automation & Demand Reduction (1 Day)*

Introduces technologies to help building personnel better manage their energy use, reduce electrical demand, and maintain or even improve the comfort of building occupants.

**2. Program Goal**

**A. Expected energy and demand savings – time horizon**

Because KCP&L is proposing that BOC be considered an educational program, no energy and demand savings will be attributed to the Program. Although there may be some level of operational savings that will be achieved by participants, KCP&L believes that the majority of the demand and energy savings benefit will be recognized through energy efficiency measures implemented by a BOC participant in KCP&L's Commercial and Industrial Rebate Program.

**3. Program Framework/Strategy**

**A. Relationship to other programs**

The BOC program is designed for commercial and industrial building operators; therefore, the Program has a strong relationship through promotion with KCP&L's other demand side management (DSM) programs, such as the Commercial and Industrial Rebate Program, MPower, and Optimizer (for small general service customers).

KCP&L's other DSM programs offer significant opportunity for cross-promotion. For example, under the existing BOC program, KCP&L allows specific time during the BOC training to educate BOC participants on the Company's C&I programs.

**B. Marketing strategy**

The target market for BOC is defined as the person or persons responsible for maintaining a building's operating facilities on a daily basis. Most facilities have a specific person responsible for this function; however only larger facilities, usually 50,000 square feet or more, will have a person designated full-time for this function. The Program is designed for building operators, building managers, maintenance staff and utility representatives. The following business sectors are targeted:

- Education
- Government
- Health Care
- Hospitality
- Municipal and County Government
- Property Management
- Retail

There is a two-tiered customer value proposition for the building owner, or facility manager, and the building operator.

<b>Building Owner or Facility Manager</b>	<b>Building Operator</b>
<ul style="list-style-type: none"> <li>▪ Lower energy expenditures potential in the 5-15% range</li> </ul>	<ul style="list-style-type: none"> <li>▪ Receive recognition for industry expertise</li> </ul>
<ul style="list-style-type: none"> <li>▪ Increase tenant satisfaction and retention rates by providing better comfort, air quality and safety</li> </ul>	<ul style="list-style-type: none"> <li>▪ Potential additional compensation due to documented industry expertise</li> </ul>

Marketing Tactics

KCP&L may utilize the methods described below to reach the targeted building owner, facility manager, or building operator:

- Promote Program to specific customers through KCP&L Energy Consultants and Commercial Consultants.
- Utilize newsletter communications such as the commercial version of The Wire and the Customer Solutions monthly electronic newsletter called Energy Talk, which is emailed to approximately 750 contacts.
- Advertise in industry publications/newsletters.
- Promote Program on www.kcpl.com Home Page, within site and in AccountLink Advantage portal.
- Include information on customers' bills (bill message).
- Reach out to industry associations such as BOMA (Building Owners and Managers Association) through their websites, electronic newsletters, speaking opportunities, and testimonials.

**C. Program Delivery**

In Missouri, the Department of Energy of the Missouri Department of Natural Resources (MDNR) operates BOC on behalf of MEEA. This is done with support from KCP&L, and other utilities, to offer the training in their respective Missouri service areas. MDNR Department of Energy is a non-regulatory state agency that works to protect the environment and stimulate the economy through energy efficiency and renewable energy resources and technologies.

In Kansas, MEEA will operate the BOC program directly. The Program is supported in Kansas by KCP&L, Westar, and Midwest Energy. The licensing agreement in Kansas was executed December 2008 and the organization is still being developed to offer the training in a comprehensive manner as it is in Missouri.

KCP&L Kansas customers may take the BOC courses in Missouri with the partnership with MDNR as viable options are developed Kansas. KCP&L is offering the course for the first time at Johnson County Community College in spring 2010. In performing the training in this manner, KCP&L is able to utilize local expertise in administering the course.

KCP&L will also have an internal staff person manage the BOC program.

**D. Partners**

KCP&L will continue to use its existing partners in the BOC program. These include the following:

- NEEC provides support for the development of the BOC program. NEEC is a non-profit regional consortium of utilities, government, public interest groups and the private sector dedicated to transforming markets for energy efficient products and services.
- MEEA is the leading source and champion for advancing sound energy-efficiency policies, programs and priorities to stretch essential resources. MEEA balances the interests of its diverse members, creating a common ground to affect positive change. Through MEEA, utilities, local and state governments, non-profits, manufacturers, retailers, consultants and others work together toward a shared vision for energy efficiency in the Midwest.
- MDNR Department of Energy is a non-regulatory state agency that works to protect the environment and stimulate the economy through energy efficiency and renewable energy resources and technologies.

**4. Program Budget (Five-Year)**

Since the Program is an established program, KCP&L does not have any start-up costs. The expected budget for the BOC Program over the five-year period is shown below. As the Program matures and as the market for BOC participants becomes saturated, it is anticipated that KCP&L will offer fewer classes and is proposing that no incentive be offered in Years 3-5.

	Start-up	Admin	Delivery	Marketing	Incentive	M&V	Total
Year 1	**						**
Year 2	**						**
Year 3	**						**
Year 4	**						**
Year 5	**						**
Total	**						**



**5. Program Beneficiaries**

**A. Expected number of participants by customer class or subclass**

The expected number of participants over the five-year period is shown below.

	<b>Kansas Commercial/Industrial Participants*</b>
<b>Year 1</b>	** [REDACTED] **
<b>Year 2</b>	** [REDACTED] **
<b>Year 3</b>	** [REDACTED] **
<b>Year 4</b>	** [REDACTED] **
<b>Year 5</b>	** [REDACTED] **
<b>Total</b>	** [REDACTED] **
*Classes consist of customers from all KCP&L jurisdictions in Kansas, Missouri, and GMO.	

**B. Other beneficiaries**

No other beneficiaries have been observed.

**6. Program Benefit-Cost Analysis**

In Docket No. 08-GIMX-441-GIV, page 16, the Commission ordered "...the Commission finds that it will not subject education programs to benefit-cost analysis but will require utilities to provide extensive explanations of the programs and their attendant costs, evidence of usefulness in other jurisdictions, and any additional information the utility believes will support the implementation of an education program." Therefore, because Building Operator Certification is considered an education program, we have not included a program benefit-cost analysis.

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

Program evaluation, measurement and verification (EM&V) are key elements of demand-side management (DSM) programs. EM&V is used to document and measure the effects of a program and determine whether the program met its goal with respect to being a reliable energy resource. EM&V is also used to help understand why certain effects occurred and identify ways to improve current programs and to select future programs.

The two types of evaluation utilized by KCP&L are:

Process evaluation: Process evaluation assesses program delivery, from design to implementation, in order to identify bottlenecks, efficiencies, what did and did not work, constraints and potential improvements.

Evaluation plans are developed by KCP&L's evaluation contractor(s) and describe all necessary data collection, process evaluation tasks and impact evaluation tasks by program. Evaluation Plans include the following information:

- Study Methodology by Program;
- Data Collection Strategies;
- Data Requests by Program; and
- Detailed Work Plan and Schedule.

Impact evaluation: Impact evaluation determines the impacts (energy and demand savings) and co-benefits (avoided emissions, energy security, transmission/distribution benefits) that directly result from a program. Impact evaluations also support cost-effectiveness analyses aimed at identifying relative program costs and benefits.

The Monitoring and Verification (M&V) process acts as a quality control and quality assurance process for the savings, tracking and accounting for the program.

Monitoring: This is the monitoring of installations when needed to determine or verify savings from a measure that is applied in a unique way, is significant in savings, or is new to the market. Working with the evaluation contractor, guidelines are developed to determine which projects should be monitored.

Verification: During the processing of an application for customer incentives (rebates), KCP&L reviews the equipment specifications by model number to determine if that measure qualifies. This "paper" verification occurs on all applications. Additionally, there are random field visits to assure the correct number and types of measures were installed at the customer's facility.

KCP&L retains one or more M&V contractors to perform process and impact evaluations for its programs in order to avoid conflicts of interest and to insure credibility of the evaluation results. M&V is conducted by the implementation team with advice of the M&V contractor.

At such time that pending Docket No. 10-GIMX-013-GIE is concluded, measurement and verification of the Program will be completed consistent with those requirements established by the Commission.

**8. Program Specific Tariff Schedule**

Please see tariff attached to the testimony of KCP&L witness Curtis Blanc for KCP&L's Building Operator Certification Program, Schedule 8, also referred to as Schedule BOC.

## Kansas City Power & Light Company

### COMMERICAL AND INDUSTRIAL REBATE PROGRAMS

The following information regarding KCP&L's Commercial and Industrial Rebate Programs is provided in compliance with Appendix A of the Commission's November 14, 2008 Final Order issued in Docket No. 08-GIMX-441-GIE. This Program is set forth in KCP&L's pending tariff Schedule 9, also referred to as Schedule CIRP, provided with this filing.

#### **1. Program Description**

The purpose of the Commercial & Industrial Rebate Programs (Program) is to proactively impact Commercial & Industrial (C&I) customers' energy use in such a way as to reduce consumption of electric energy and/or reduce peak energy and demand levels.

The reduction in energy consumption and demand will be accomplished through:

- Prescriptive Energy Efficiency Measures;
- Custom Energy Efficiency Measures (New Construction and Retrofit); and
- Request For Proposals (RFP) Projects.

#### **Prescriptive Energy Efficiency Measures**

KCP&L's rebates for C&I prescriptive energy efficiency measures provides prescriptive incentives to C&I customers for the installation of energy efficient equipment for numerous end use applications. Rebates will be fixed per eligible energy efficiency measure.

The Company will maintain and make available a list of cost-effective energy efficiency Prescriptive Measures on its Company website. The Prescriptive Measure list, rebate amounts, and minimum efficiency criteria will be updated as market or industry conditions change. Measure category headings may include, but are not limited to:

- Lighting and Controls;
- Motors, Pumps, and Variable Frequency Drives;
- HVAC;
- Process;
- ENERGY STAR® Equipment;
- Business Computing; and
- Food Service and Refrigeration.

The proposed eligible prescriptive energy efficiency measures and rebates for each equipment type are detailed in Section 9 of this Appendix. Proposed measures will be determined closer to the launch date of the Program to validate their relevance.

The combined rebates provided under the Prescriptive and Custom Energy Efficiency Measures (New Construction and Retrofit) are limited to less than or equal to \$150,000 per site per program year and less than or equal to \$250,000 per customer per program year.

**Custom Energy Efficiency Measures (New Construction and Retrofit)**

Innovative energy efficiency measures or measures with large variability in application will be considered under the Custom Energy Efficiency Measures (New Construction or Retrofit). Application to existing facilities and/or new facilities will vary by measure depending on the codes and standards within the new construction marketplace. All custom rebates are individually analyzed.

To qualify for a rebate under the Customer Energy Efficiency Measures, each proposed measure must:

- Be evaluated prior to being purchased and installed (pre-qualified);
- Produce a Societal Benefit/Cost test result of 1.0 or higher; and
- Have an incremental payback greater than the time frame identified by KCP&L before consideration of program incentives.

It is anticipated that Custom rebates will be calculated as the lesser of the following:

- Buydown to a 2 year payback; or
- 50% of the incremental cost of the energy efficiency measure.

However, as conditions dictate, the calculations may be adjusted to maximize participation in the Program.

A customer may submit multiple rebate applications for different measures. Each individual measure will be evaluated on its own merits. Similar measures that are proposed in different facilities or buildings will be evaluated separately.

The combined rebates provided under the Prescriptive and Custom Energy Efficiency Measures (New Construction and Retrofit) are limited to less than or equal to \$150,000 per site per program year and less than or equal to \$250,000 per customer per program year.

**Request For Proposals (RFP) Projects**

The primary purpose of RFP Project rebate program is to encourage C&I customers to install energy efficient process, refrigeration, and other efficient equipment and controls in existing facilities beyond what they would have installed without the program. The program is to have special offers that stimulate larger package projects, not just measures or specific systems. More specifically, the program is designed to:

- Stimulate the market and move stalled efficiency projects;
- Provide incentives to facility owners and operators for the installation of high-efficiency process, refrigeration and other equipment and controls; and

- Provide a marketing mechanism for consulting engineers, process and equipment contractors and distributors to promote specific energy efficient equipment to end users.

**2. Program Goal**

**A. Expected energy and demand savings – time horizon**

The expected annual, cumulative energy and demand savings for the Commercial and Industrial Rebate Program over the estimated life of the program is shown below.

Cumulative net Free Riders	Program Energy Savings (kWh)	Program Demand Savings (kW)
Year 1	** [REDACTED]	[REDACTED]**
Year 2	** [REDACTED]	[REDACTED]**
Year 3	** [REDACTED]	[REDACTED]**
Year 4	** [REDACTED]	[REDACTED]**
Year 5	** [REDACTED]	[REDACTED]**
Year 6	** [REDACTED]	[REDACTED]**
Year 7	** [REDACTED]	[REDACTED]**
Year 8	** [REDACTED]	[REDACTED]**
Year 9	** [REDACTED]	[REDACTED]**
Year 10	** [REDACTED]	[REDACTED]**
Year 11	** [REDACTED]	[REDACTED]**
Year 12	** [REDACTED]	[REDACTED]**
Year 13	** [REDACTED]	[REDACTED]**
Year 14	** [REDACTED]	[REDACTED]**
Year 15	** [REDACTED]	[REDACTED]**
Year 16	** [REDACTED]	[REDACTED]**
Year 17	** [REDACTED]	[REDACTED]**
Year 18	** [REDACTED]	[REDACTED]**
Year 19	** [REDACTED]	[REDACTED]**
Year 20	** [REDACTED]	[REDACTED]**
Year 21	** [REDACTED]	[REDACTED]**
Year 22	** [REDACTED]	[REDACTED]**
Year 23	** [REDACTED]	[REDACTED]**
Year 24	** [REDACTED]	[REDACTED]**

**3. Program Framework/Strategy**

**A. Relationship to other programs**

The C&I Rebate Programs are designed for commercial and industrial customers; therefore, the program has a strong relationship through promotion with the Company's other Commercial and Industrial (C&I) demand side management (DSM) programs, such as the Building Operator Certification (BOC) program, MPower, Optimizer (for small general service customers), and Business Energy Analyzer. There is also a strong relationship with the proposed the Energy Saver Loan Program, partnered with Efficiency Kansas.

**B. Marketing strategy**

All KCP&L commercial and industrial customers are eligible for these rebate programs. Customers may apply for individual or multiple efficiency measures within the same facility under any of these programs.

In order to promote the various Prescriptive Energy Efficiency Measures, targeted messaging will be done to reach specific industries. The table below lists the seven possible subcategories of the program with the industries and entities that will be targeted to market the rebates.

<b>C&amp;I Prescriptive Energy Efficiency Measures</b>	<b>Industries and Entities</b>
Prescriptive Motors, Pumps & VFDs	Motor manufacturers and distributors
Food Service & Refrigeration	Restaurant associations, equipment manufacturers and distributors, grocery stores, convenience stores, gas stations
HVAC	HVAC dealers, manufacturers and distributors
Lighting	Lighting manufacturers and distributors
Process	Air compressors, injection molding manufacturers
ENERGY STAR Commercial Appliances	Manufacturers and distributors of refrigerators, freezers, ice machines, clothes washers
Office Computing	Data centers, facility managers, schools, office managers, hospitals

The C&I Custom Energy Efficiency Measures (New Construction and Retrofit) provides customers with financial incentives for installing qualifying electric savings measures including HVAC systems, motors, variable speed drives, lighting, building controls, pumps, etc. For the New Construction program, energy efficiency measures must be installed in a new facility, or in a facility undergoing major renovations. For the Retrofit program, energy efficiency measures must be installed in an existing facility.

KCP&L will use Energy Consultants to help promote the C&I Rebate Programs with Tier 1 customers and Commercial Consultants will promote it with Tier 2 and 3 customers.

Marketing Tactics

For the C&I Rebate Programs, KCP&L will continue to develop and foster our relationships with commercial professional/trade associations. Listed below are the associations that KCP&L believes will be instrumental in the continued success of this program.

<b>Commercial Professional / Trade Organizations</b>	<b>Acronym</b>
Air Conditioning Contractors of America	ACCA
American Council of Engineering Companies	ACEC-KS
American Institute of Architects of KCMO	AIA
American Institute of Architects of Mid-America	AIA – Mid Am
American Society of Heating Refrigeration Air Conditioning Engineers	ASHRAE
Association of Energy Engineers	AEE
Business Owners and Managers Association	BOMA
Design-Build Institute of America Mid-America Region	DBIA-MAR
Electric League of Missouri & Kansas	EL -- KS
Illuminating Engineering Society – KC Section	IES -- KC
International Facilities Management Association	IFMA
Mechanical Contractors Association of KC	MCA
National Electrical Contractors Association	NECA
The Builders Association	BA
U.S. Green Building Council	USGBC

For the C&I Rebate Program, KCP&L has identified the following internal and external print communications as possible marketing channels:

Externally Published Communications:

- The Kansas City Star – Business section on Tuesdays;
- HVAC/Lighting contractor newsletters/magazines;
- Kansas City Business Journal (Book of Lists); and
- Builder/Architect magazine.

Internally Published Communications

- Energy Talk. This is a monthly newsletter e-mailed to Tier 1 customers from KCP&L’s Energy Consultants.
- The Wire. (Commercial version). This is a quarterly newsletter from KCP&L that is included with a customer’s bill.
- Bill messaging.
- On line promotion with KCP&L’s other e-Services products.



Other marketing activities may include:

- Online advertising will be used with Google AdWords;
- Placement of information on trade ally Web sites;
- Attend and present at conferences and public events, such as Chamber of Commerce meetings, to increase general awareness of the program and distribute program promotional materials;
- Hold seminars with targeted messages to different industry classifications;
- Hold seminars with architects and engineers, trade allies, and trade organizations; or
- Sponsor spots on public radio.

### **C. Program delivery**

The C&I Rebate Program will be implemented by KCP&L with necessary resources to administer the Program. A Program Administrator will be responsible for items such as incentive processing, rebate processing, communication with the customer to resolve application issues, and status reporting associated with the Program as KCP&L directs.

KCP&L will utilize an internal program manager to conduct its own administration of the program. KCP&L's program manager will maintain oversight of the Program.

KCP&L will continue to market the program and utilize their sales teams to work with specific customers, such as Tier 1 or Tier 2/3 customers.

### **D. Partners**

Partners include KCP&L internal staff, various trade associations, local Chamber of Commerce organizations, and others as needed to promote and encourage customer participation in the program.

## **4. Program Budget (Five-Year)**

Although the C&I Prescriptive Energy Efficiency Measures and RFP Projects Rebate Programs are new facets to KCP&L's already established C&I Rebate Programs, KCP&L does not have any start-up costs. The expected budget for the C&I Rebate Programs over the five-year period is shown below.

<b>Commercial &amp; Industrial Rebate Programs</b>							
	<b>Start-up</b>	<b>Admin</b>	<b>Program Delivery</b>	<b>Marketing</b>	<b>Incentive</b>	<b>M&amp;V</b>	<b>Total</b>
<b>Year 1</b>	** [REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]**
<b>Year 2</b>	** [REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]**
<b>Year 3</b>	** [REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]**
<b>Year 4</b>	** [REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]**
<b>Year 5</b>	** [REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]**
<b>Total</b>	** [REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]**

**5. Program Beneficiaries**

**A. Expected number of participants by customer class or subclass**

The number of expected program end use measures (net-free) expected to be undertaken by Kansas C&I customers over the five-year period is shown below.

	<b>Kansas Annual End Use Program Measures (Net-Free)</b>
<b>Year 1</b>	** [REDACTED]**
<b>Year 2</b>	** [REDACTED]**
<b>Year 3</b>	** [REDACTED]**
<b>Year 4</b>	** [REDACTED]**
<b>Year 5</b>	** [REDACTED]**
<b>Total</b>	** [REDACTED]**

**B. Other beneficiaries**

No other beneficiaries have been observed.

## 6. Program Benefit-Cost Analysis

All five benefit-cost tests are shown below for the roll-up of the C&I Rebate programs. The dollar values below are on a present value basis with the assumption that all future cash flows start at the beginning of each annual period, discounted at the appropriate discount rate.

<b>Commercial &amp; Industrial Rebates</b>		
<b>Test Name</b>	<b>Market Based Test Results</b>	<b>Cost Based Test Results</b>
Utility Test	4.45	2.66
TRC Test	3.04	1.82
RIM Test	1.00	0.60
RIM (Net Fuel)	1.34	0.80
Participant Test	3.61	3.61
Societal Test 3% / \$10	3.94	2.96
Societal Test 3% / \$25	4.44	3.46
Societal Test 3% / \$40	4.93	3.96
Societal Test 7% / \$10	3.86	2.88
Societal Test 7% / \$25	4.24	3.26
Societal Test 7% / \$40	4.62	3.64

<b>Assumptions</b>	
Utility Discount Rate (%)	** [REDACTED] **
Participant Discount Rate (%)	10.00%
Electric Losses (%)	** [REDACTED] **
Societal Discount Rate1 (%)	3.00%
Societal Discount Rate2 (%)	7.00%

<b>Avoided Costs</b>	
Avoided T&D (\$ / kW)	** [REDACTED] **
Avoided Market-Based Ancillary Service Charges (OATT)	** [REDACTED] **
Cost-Based Proxy for Avoided Capacity (\$ / kW Annualized)	** [REDACTED] **
CO2 emissions (kG/kWh)	** [REDACTED] **

Cost Based Avoided Electric Production	** [REDACTED] **
Avoided T&D Electric, w OATT	** [REDACTED] **
Avoided Electric Capacity	** [REDACTED] **
<b>Total Cost Based Avoided Costs</b>	** [REDACTED] **

<b>Market Based Avoided Electric Production Costs</b>	** [REDACTED] **
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<b>Program Costs</b>	
Administration Costs	** [REDACTED] **
Implementation / Participation Costs	** [REDACTED] **
Customer Incentives	** [REDACTED] **
Other / Miscellaneous Costs	** [REDACTED] **
<b>Total Program Cost</b>	** [REDACTED] **

<b>Participant Cost</b>	** [REDACTED] **
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<b>Environmental Benefits</b>	<b>@ 3% Discount Rate</b>	<b>@ 7% Discount Rate</b>
\$10 per Ton	** [REDACTED] **	** [REDACTED] **
\$25 per Ton	** [REDACTED] **	** [REDACTED] **
\$40 per Ton	** [REDACTED] **	** [REDACTED] **

<b>Other Environmental Benefits, NOx SOx</b>	** [REDACTED] **
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<b>Lost Revenue</b>	
Gross Lost Revenue, Electric	** [REDACTED] **
Net Fuel Lost Revenue, Electric	** [REDACTED] **

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

Program evaluation, measurement and verification (EM&V) are key elements of demand-side management (DSM) programs. EM&V is used to document and measure the effects of a program and determine whether the program met its goal with respect to being a reliable energy resource. EM&V is also used to help understand why certain effects occurred and identify ways to improve current programs and to select future programs.

The two types of evaluation utilized by KCP&L are:

Process evaluation: Process evaluation assesses program delivery, from design to implementation, in order to identify bottlenecks, efficiencies, what did and did not work, constraints and potential improvements.

Evaluation plans are developed by KCP&L's evaluation contractor(s) and describe all necessary data collection, process evaluation tasks and impact evaluation tasks by program. Evaluation Plans include the following information:

- Study Methodology by Program;
- Data Collection Strategies;
- Data Requests by Program; and
- Detailed Work Plan and Schedule.

Impact evaluation: Impact evaluation determines the impacts (energy and demand savings) and co-benefits (avoided emissions, energy security, transmission/distribution benefits) that directly result from a program. Impact evaluations also support cost-effectiveness analyses aimed at identifying relative program costs and benefits.

The Monitoring and Verification (M&V) process acts as a quality control and quality assurance process for the savings, tracking and accounting for the program.

Monitoring: This is the monitoring of installations when needed to determine or verify savings from a measure that is applied in a unique way, is significant in savings, or is new to the market. Working with the evaluation contractor, guidelines are developed to determine which projects should be monitored.

Verification: During the processing of an application for customer incentives (rebates), KCP&L reviews the equipment specifications by model number to determine if that measure qualifies. This “paper” verification occurs on all applications. Additionally, there are random field visits to assure the correct number and types of measures were installed at the customer’s facility.

KCP&L retains one or more M&V contractors to perform process and impact evaluations for its programs in order to avoid conflicts of interest and to insure credibility of the evaluation results. M&V is conducted by the implementation team with advice of the M&V contractor.

At such time that pending Docket No. 10-GIMX-013-GIE is concluded, measurement and verification of the Program will be completed consistent with those requirements established by the Commission.

## **8. Program Specific Tariff Schedule**

Please see tariff attached to the testimony of KCP&L witness Curtis Blanc as Schedule CDB-10 for KCP&L’s Commercial and Industrial Rebate Programs, Schedule 9, also referred to as Schedule CIRP.

## 9. Prescriptive Energy Efficiency Measures List

Below is a listing of proposed eligible prescriptive energy efficiency measures and rebates.

<b>LIGHTING &amp; CONTROLS PRESCRIPTIVE MEASURES</b>	
Measure	Rebate
<b>T8 with Electronic Ballast</b>	
T8 8ft 1 lamp replacing T12 (retrofit only)	\$ 25.00
T8 8ft 2 lamp replacing T12 (retrofit only)	\$ 27.00
T8 4ft 4 lamp replacing T12 (retrofit only)	\$ 28.50
T8 4ft 3 lamp replacing T12 (retrofit only)	\$ 27.00
T8 4ft 2 lamp replacing T12 (retrofit only)	\$ 18.00
T8 4ft 1 lamp replacing T12 (retrofit only)	\$ 16.50
T8 3ft 4 lamp replacing T12 (retrofit only)	\$ 28.50
T8 3ft 3 lamp replacing T12 (retrofit only)	\$ 27.00
T8 3ft 2 lamp replacing T12 (retrofit only)	\$ 18.00
T8 3ft 1 lamp replacing T12 (retrofit only)	\$ 16.50
T8 2ft 4 lamp replacing T12 (retrofit only)	\$ 28.50
T8 2ft 3 lamp replacing T12 (retrofit only)	\$ 27.00
T8 2ft 2 lamp replacing T12 (retrofit only)	\$ 18.00
T8 2ft 1 lamp replacing T12 (retrofit only)	\$ 16.50
T8 HO 8ft 1 lamp replacing T12 (retrofit only)	\$ 33.00
T8 HO 8ft 2 lamp replacing T12 (retrofit only)	\$ 36.00
T8 HB 4ft 4L (retrofit only replacing 250-399W HID)	\$ 80.00
T8 HB 4ft 6L (retrofit only replacing 400-999W HID)	\$ 60.00
T8 HB 4ft 8L (retrofit only replacing 400-999W HID)	\$ 100.00
2 fixtures – T8 32W HB 4ft 8 Lamp (retrofit only replacing 1,000W HID-2 for one replacement )	\$ 200.00

<b>T5 with Electronic Ballast</b>	
T5 1 lamp replacing T12 (retrofit only)	\$ 30.00
T5 2 lamp replacing T12 (retrofit only)	\$ 37.00
T5 3 lamp replacing T12 (retrofit only)	\$ 40.00
T5 4 lamp replacing T12 (retrofit only)	\$ 44.00
T5 HO 1 lamp replacing T12 (retrofit only)	\$ 60.00
T5 HO 2 lamp replacing T12 (retrofit only)	\$ 70.00
T5 HO 3 lamp replacing T12 (retrofit only)	\$ 88.00
T5 HO 4 lamp replacing T12 (retrofit only)	\$ 112.00
T5 HO HB 3L (retrofit only replacing 250-399W HID)	\$ 90.00
T5 HO HB 4L (retrofit only replacing 400-999W HID)	\$ 96.00
T5 HO HB 6L (retrofit only replacing 400-999W HID)	\$ 175.00
2 fixtures – T5 HO HB 6 Lamp (retrofit only replacing 1,000W HID-2 for one replacement )	\$ 350.00
<b>Compact Fluorescents (CFL)</b>	
42W 8 lamp HB CFL	\$ 200.00
CFL – Screw In (lamp only)	\$ 2.00
CFL – Hardwired (Fixture and lamp)	\$ 22.00
320W Pulse Start Halide (retrofit only)	\$ 75.00
<b>Low Watt High Performance T8 Lighting</b>	
Re-lamp T8 fixtures with low Watt T8 lamps-30 watts or less	\$ 0.50/lamp
Replace standard T8 systems with 4' 25W, 28W, or 30W T8 U lamps and approved ballast OR relamp existing T8 fixtures with low Watt T8 lamps 28W or less. In order to qualify for incentives, ballasts must be from CEE approved list ( <a href="http://www.cee1.org">www.cee1.org</a> ).	

<b>Other Efficient Lighting Technologies</b>	
21" Tubular Skylight/Light Tube	\$250.00/fixture
LED Exit Signs (replacement fixture only)	\$10.00/fixture
Daylight Sensor Lighting Control (over 10,000 square feet controlled)	\$1,000.00/system
Centralized Lighting Control (over 10,000 square feet controlled automatically)	\$1,000.00/system
Multilevel Lighting Control (over 10,000 square feet controlled)	\$1,500.00/system
<b>Occupancy Sensors</b>	
Under 500 W connected to sensor	\$40.00/sensor
Over 500 W connected to sensor	\$50.00/sensor
<b>LED Signals</b>	
LED Auto Traffic Signals (retrofit only)	\$12.50/ lamp
LED Pedestrian Signals (retrofit only)	\$50.00/signal
HB-High Bay LED = light emitting diode W = Watt	



<b>MOTORS, PUMPS, AND VFDs PRESCRIPTIVE MEASURES</b>							
<b>Nominal Efficiencies for "NEMA Premium"™ Induction Motors</b>							
		Open, Drip Proof (ODP)			Totally Enclosed, Fan-Cooled (TEFC)		
HP	Rebate per HP	1200 RPM	1800 RPM	3600 RPM	1200 RPM	1800 RPM	3600 RPM
1	\$ 46.50	82.5%	85.5%	77.0%	82.5%	85.5%	77.0%
1.5	\$ 46.50	86.5%	86.5%	84.0%	87.5%	86.5%	84.0%
2	\$ 46.50	87.5%	86.5%	85.5%	88.5%	86.5%	85.5%
3	\$ 46.50	88.5%	89.5%	85.5%	89.5%	89.5%	86.5%
5	\$ 46.50	89.5%	89.5%	86.5%	89.5%	89.5%	88.5%
7.5	\$ 104.80	90.2%	91.0%	88.5%	91.0%	91.7%	89.5%
10	\$ 104.80	91.7%	91.7%	89.5%	91.0%	91.7%	90.2%
15	\$ 104.80	91.7%	93.0%	90.2%	91.7%	92.4%	91.0%
20	\$ 104.80	92.4%	93.0%	91.0%	91.7%	93.0%	91.0%
25	\$ 271.00	93.0%	93.6%	91.7%	93.0%	93.6%	91.7%
30	\$ 271.00	93.6%	94.1%	91.7%	93.0%	93.6%	91.7%
40	\$ 271.00	94.1%	94.1%	92.4%	94.1%	94.1%	92.4%
50	\$ 271.00	94.1%	94.5%	93.0%	94.1%	94.5%	93.0%
60	\$ 271.00	94.5%	95.0%	93.6%	94.5%	95.0%	93.6%
75	\$ 271.00	94.5%	95.0%	93.6%	94.5%	95.4%	93.6%
100	\$ 271.00	95.0%	95.4%	93.6%	95.0%	95.4%	94.1%
125	\$ 820.00	95.0%	95.4%	94.1%	95.0%	95.4%	95.0%
150	\$ 820.00	95.4%	95.8%	94.1%	95.8%	95.8%	95.0%
200	\$ 820.00	95.4%	95.8%	95.0%	95.8%	96.2%	95.4%
250	\$ 820.00	95.4%	95.8%	95.0%	95.8%	96.2%	95.8%
300	\$ 820.00	95.4%	95.8%	95.4%	95.8%	96.2%	95.8%

VFD = Variable frequency drive

<b>High Efficiency Pumps</b>		
HP	Minimal Efficiency	Rebate
1.5	Pump efficiency of 75% or greater for the dominant operating conditions as demonstrated by a pump performance curve	\$ 210.00
2		\$ 220.00
3		\$ 230.00
5		\$ 240.00
7.5		\$ 250.00
10		\$ 260.00
15		\$ 300.00
20		\$ 400.00
<b>Variable Frequency Drives (VFDs)</b>		
HP		Rebate
1.5		\$ 1,930.25
2		\$ 1,985.25
3		\$ 2,047.65
5		\$ 2,176.50
7.5		\$ 2,751.50
10		\$ 2,864.00
15		\$ 3,580.50
20		\$ 4,030.50
25		\$ 4,705.50
30		\$ 5,414.00
40		\$ 5,685.00
50		\$ 7,128.00
VFD = Variable frequency drive HP = Horsepower		

<b>HVAC PRESCRIPTIVE MEASURES</b>		
Size	Efficiency	Rebate
<b>Unitary and Rooftop Air Conditioning</b>		
<65,000 BTUH (1 Phase)	14 SEER	\$200.00
<65,000 BTUH (3 Phase)	13 SEER	\$200.00
65,000-135,000 BTUH	11 EER	\$400.00
136,000-240,000 BTUH	11 EER	\$800.00
241,000-760,000 BTUH	10 EER	\$1,000.00
>760,000 BTUH	10 EER	\$2,600.00
<b>Unitary and Rooftop HP</b>		
<65,000 BTUH (1 Phase)	14 SEER	\$200.00
<65,000 BTUH (3 Phase)	13 SEER	\$200.00
65,000-135,000 BTUH	11 EER	\$400.00
136,000-240,000 BTUH	10 EER	\$800.00
>240,000 BTUH	10 EER	\$1,000.00
<b>Water Source Heat Pump</b>		
<17,000	11.5 EER	\$16.00
17,000-65,000	12.3 EER	\$46.00
65,000-135,000	12.3 EER	\$115.00
<b>Water Cooled Chillers</b>		
< 150 tons	0.78 kW/ton	\$2,000.00
150-300 tons	0.56 kW/ton	\$9,200.00
> 300 tons	0.54 kW/ton	\$40,000.00
<b>Air Cooled Chillers</b>		
	1.16 kW/ton	\$5,000.00
<b>HP Water Heater</b>		
500 gallon/day	3.0 COP	\$3,500.00
1000 gallon/day	3.0 COP	\$5,000.00
1500 gallon/day	3.0 COP	\$7,000.00
<b>Packaged Terminal A/C</b>		
	9.2 EER	\$60.00
<b>Packaged Terminal HP</b>		
	9.0 EER	\$60.00

<b>HVAC PRESCRIPTIVE MEASURES-Continued</b>	
Size/Measure	Rebate
<b>Chilled Water Reset Air Cooled</b>	
0-100 tons	\$550.00
100-200 tons	\$750.00
200-300 tons	\$875.00
300-400 tons	\$875.00
400-500 tons	\$900.00
<b>Chilled Water Reset Water Cooled</b>	
0-1000 tons	\$500.00
1000-2000 tons	\$750.00
2000-3000 tons	\$875.00
<b>Energy Star Sleeve Air Conditioners</b>	
> 14,000 BTU/h	\$15.00
< 14,000 BTU/h	\$15.00
<b>Other Measures</b>	
Economizer	\$50.00
Tuneup - Refrigerant Charge (retrofit only)	\$15.00
Setback/Programmable Thermostat	\$35.00

<b>PROCESS PRESCRIPTIVE MEASURES</b>	
Measure	Rebate
Engineered Nozzles	\$20.00/nozzle
Barrel Wraps for Injection Molders & Extruders	\$1.00/ton
Insulated Pellet Dryer Ducts-3" diameter	\$15.00/sq ft.*
Insulated Pellet Dryer Ducts-4" diameter	\$20.00/sq ft.*
Insulated Pellet Dryer Ducts-5" diameter	\$25.00/sq ft.*
Insulated Pellet Dryer Ducts-6" diameter	\$30.00/sq ft.*
Insulated Pellet Dryer Ducts-8" diameter	\$40.00/sq ft.*
*capped at 50% of final invoiced product cost	

<b>ENERGY STAR® PRESCRIPTIVE MEASURES</b>	
Measure	Rebate
<b>ENERGY STAR Commercial Solid Door Refrigerators</b>	
Less than 20 ft <sup>3</sup>	\$125.00/refrigerator
20-40 ft <sup>3</sup>	\$250.00/refrigerator
More than 48 ft <sup>3</sup>	\$450.00/refrigerator
<b>ENERGY STAR Commercial Solid Door Freezers</b>	
Less than 20 ft <sup>3</sup>	\$75.00/freezer
20-40 ft <sup>3</sup>	\$200.00/freezer
More than 48 ft <sup>3</sup>	\$350.00/freezer
<b>Ice Machines*</b>	
Less than 500 lbs ice production	\$300.00/machine
500-1000 lbs ice production	\$750.00/machine
More than 1000 lbs ice production	\$1,000/machine
<b>Energy Star Commercial Clothes Washers</b>	
Washers Only	\$130.00/washer
* Must meet Consortium for Energy Efficiency's (CEE) Tier 1 ice machine specification. Flake and nugget machines are not included.	

<b>BUSINESS COMPUTING PRESCRIPTIVE MEASURES</b>	
Measure	Rebate
Plug Load Occupancy Sensor Document Stations*	\$40.00/station
80 PLUS Desktop Computer	\$5.00/computer
80 PLUS Desktop-Derived Server	\$10.00/server
Network Desktop Computer Power Management Software	\$15.00/desktop computer
*Must have three (3) devices connected to plug load service	

<b>FOOD SERVICE AND REFRIGERATION PRESCRIPTIVE MEASURES</b>	
Measure	Rebate
Cold Beverage Vending Machine Controllers	\$50.00/unit
Anti-sweat Heater Controls*	\$40.00/door
Efficient Refrigeration Condenser	\$17.50/ton of refrigeration capacity
Night Covers For Open Displays**	\$17.50/per lineal foot
Head Pressure Control*	\$60.00/ton of refrigeration
*Up to 50% of project costs	
**Store operation must allow covers to be covering cases at least 6 hours per 24 hour period.	

## Kansas City Power & Light Company

### CONSUMER MARKET RESEARCH PROGRAM

The following information regarding KCP&L's Consumer Market Research program is provided in compliance with Appendix A of the Commission's November 14, 2008 Final Order issued in Docket No. 08-GIMX-441-GIE.

#### 1. Program Description

The Consumer Market Research Programs will concentrate on specific opportunities to expand energy efficiency and demand response programs. Of particular interest will be expanding KCP&L's portfolio of offerings based on customer interest in possible new product offerings. This research will also identify current barriers to customer participation in the programs and help KCP&L find ways to overcome these hurdles in the future. In addition, this research will identify the best communication channels to reach those customers who have yet to participate.

#### 2. Program Goal

KCP&L will use these research findings to build upon the knowledge base of KCP&L customers that will lead to the expansion of demand side management (DSM) program offerings and participation. Based on these results, KCP&L will specifically use this customer information to develop new program offerings and expand upon existing programs while using the most effective communications.

#### 3. Program Delivery

A few of the targeted anticipated research areas include:

**A. DSM New Program Concept Screening:** The DSM research would measure interest in new DSM offerings among KCP&L customer base. Offerings would be comprised of other utility offerings and new vendor program offerings.

**B. Web Usability:** The web usability study would allow KCP&L to identify opportunities for improvements in KCPL.com that would improve participation while better communicating the DSM offerings.

**C. E Source:** The E Source Efficiency and Demand Response Program service provides KCP&L access to industry experts and reports from across the country that helps us apply best practices and avoid mistakes already made by other utilities in the area of DSM program offerings.

**D. Focus Groups:** Focus groups allow KCP&L to drill down exploring specific programs in greater detail that provides a better understanding of customer perceptions around the DSM program offerings. Qualitative research allows KCP&L to probe in different directions based on customer responses in real time.



**E. Communications Effectiveness:** Traditional marketing communications continue to be less effective each year with the expansion of social media and other channels. Utility companies need to keep up with today's preferred communication channels in order to remain effective in promoting DSM program offerings.

**F. Issues Tracking:** The current economy along with the uncertainties in environmental regulations is changing the way customers think about electricity. Understanding these important issues will allow utilities to be proactive in providing solutions that help meet or address their issues.

**4. Program Budget (Five-Year)**

The total five-year budget for the Consumer Market Research Program is \*\* [REDACTED] \*\* with a proposed spending as follows:

	Program Delivery	Admin	Marketing	Customer Incentive	Evaluation	Total
Year 1	** [REDACTED] **	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	** [REDACTED] **
Year 2	** [REDACTED] **	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	** [REDACTED] **
Year 3	** [REDACTED] **	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	** [REDACTED] **
Year 4	** [REDACTED] **	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	** [REDACTED] **
Year 5	** [REDACTED] **	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	** [REDACTED] **
Total	** [REDACTED] **	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	** [REDACTED] **

**5. Program Beneficiaries**

**A. Expected number of participants by customer class or subclass**  
Not applicable.

**6. Program Benefit-Cost Analysis**

Not applicable.

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

Not applicable.

**8. Program Specific Tariff Schedule**

Not applicable.

## **Kansas City Power & Light Company**

### **COOL HOMES PROGRAM**

The following information regarding KCP&L's Cool Homes Program is provided in compliance with Appendix A of the Commission's November 14, 2008 Final Order issued in Docket No. 08-GIMX-441-GIE. This Program is set forth in KCP&L's pending tariff Schedule 13, also referred to as Schedule CHP, provided with this filing.

#### **1. Program Description**

The Cool Homes Program (Program) encourages energy efficiency by:

- Providing residential customers the opportunity to have their existing cooling system evaluated by a certified technician and restore it to factory specifications (recommissioning). If it cannot be restored,
- Offering an instant rebate prior to the failure for replacement of older, inefficient air conditioning systems with high efficiency central cooling systems (early replacement).

The Program is designed to achieve three objectives:

- a. Improve the operating efficiency of single and multi-family homes with central air cooling systems;
- b. Reduce energy consumption for single and multi-family homeowners through the tune-up and early replacement of working inefficient cooling equipment, and
- c. Achieve market transformation through heating, ventilating, and air conditioning (HVAC) contractor training.

The Program includes educational and promotional marketing information to assist residential homeowners with the information necessary to improve the energy efficiency of their cooling system. The Program also includes customer and trade ally education and training to assist with understanding the technologies and applications that are being promoted, the incentives that KCP&L offers its customers, and how KCP&L's Cool Homes Program functions.

**2. Program Goal**

**A. Expected energy and demand savings – time horizon**

The expected annual, cumulative energy and demand savings for the Cool Homes Program over the estimated life of the program is shown below.

	<b>Program Energy Savings (kWh)</b>	<b>Program Demand Savings (kW)</b>
<b>Year 1</b>	** [REDACTED]	[REDACTED]**
<b>Year 2</b>	** [REDACTED]	[REDACTED]**
<b>Year 3</b>	** [REDACTED]	[REDACTED]**
<b>Year 4</b>	** [REDACTED]	[REDACTED]**
<b>Year 5</b>	** [REDACTED]	[REDACTED]**
<b>Year 6</b>	** [REDACTED]	[REDACTED]**
<b>Year 7</b>	** [REDACTED]	[REDACTED]**
<b>Year 8</b>	** [REDACTED]	[REDACTED]**
<b>Year 9</b>	** [REDACTED]	[REDACTED]**
<b>Year 10</b>	** [REDACTED]	[REDACTED]**
<b>Year 11</b>	** [REDACTED]	[REDACTED]**
<b>Year 12</b>	** [REDACTED]	[REDACTED]**
<b>Year 13</b>	** [REDACTED]	[REDACTED]**
<b>Year 14</b>	** [REDACTED]	[REDACTED]**
<b>Year 15</b>	** [REDACTED]	[REDACTED]**
<b>Year 16</b>	** [REDACTED]	[REDACTED]**
<b>Year 17</b>	** [REDACTED]	[REDACTED]**
<b>Year 18</b>	** [REDACTED]	[REDACTED]**
<b>Year 19</b>	** [REDACTED]	[REDACTED]**

### **3. Program Framework/Strategy**

#### **A. Relationship to other programs**

The Cool Homes Program will be offered to residential customers; therefore, the program has a strong relationship with KCP&L's other residential demand side management (DSM) programs:

- Home Energy Analyzer;
- Optimizer;
- ENERGY STAR® New Homes; and
- Energy Saver Loan Program (proposed).

Each program will offer opportunity for cross-promotion of KCP&L's other residential DSM programs.

The Program currently has a strong relationship with the Energy Optimizer program. It has also historically been marketed through the KCP&L website using AccountLink and Home Energy Analyzer programs. Approved Cool Homes contractors also perform work for small business owners, thereby overlapping with our Commercial & Industrial Rebate Program. It is expected that it will also have a strong relationship with the proposed Energy Saver Loan Program. Although a customer will not be able to receive a rebate under Cool Homes and participate in the proposed Energy Saver Loan Program to prevent the double counting of program energy savings, a customer will have the choice to select the best option for them provided that all of the eligibility requirements are fulfilled.

#### **B. Marketing Strategy**

The target market for the Program is KCP&L residential customers who have working, inefficient central air conditioners. In addition, the HVAC contractor market is targeted for promotion of the program.

Through December 2009, over \*\*[REDACTED]\*\* KCP&L Kansas customers have had an evaluation completed on their system.

The proposed marketing strategy includes:

- Building a strong, consistent message informing customers that the Cool Homes Program results in annual cost savings with an energy efficient cooling unit;
- Recognition of customers' green lifestyle and position the program as an essential component to their standard of living; and
- Strengthen KCP&L's relationship with Cool Homes certified contractors.

KCP&L's marketing strategy will be based on the integration of marketing, field operations, customer call center and program management functions. KCP&L will define its target audience and specify their characteristics:

1. Tune Ups –Only - Customers who want only a tune-up on their system
  - Interested in cost savings by maintaining the efficiency of their heating/cooling unit.
2. Replacers - Customers who are more likely to replace their cooling unit(s)
  - Concerned about the environment and active in maintaining a green lifestyle; and
  - Bundle rebate offers with Federal tax credits (\$1,500 for SEER 16 or above), manufacturer rebates and the Cool Homes rebate (up to \$850).
3. Contractors
  - Want to acquire additional skills in this competitive landscape;
  - Want to grow their business; and
  - Develop a strong relationship with their customers to take advantage of the defined peak season (April – July).

#### Customer Marketing Tactics

The following customer marketing activities are anticipated:

- Promote program on [www.kcpl.com](http://www.kcpl.com) Home Page, within site and in account payment portal (AccountLink);
- Provide promotional info embedded in the Energy Analyzer;
- Direct mail campaign in the Fall and Spring with seasonal program benefits highlighted;
- Conduct telemarketing in conjunction with other campaigns;
- Bill inserts and Html email campaigns;
- Print advertising in local newspapers and magazines;
- Co-op advertising with contractors in newspaper and radio; and
- Participation in Earth Day, Home Shows, and large customer employee fairs by providing brochures featuring the benefits and process to participate.

#### Contractor Marketing Tactics

KCP&L will increase its efforts with contractors with the following:

- Provide point-of-purchase materials to contractors for support at Home Shows.
- Provide a contractor web portal where information on how to join, and access reporting and marketing tools is available 24/7.
- Schedule contractor meetings.
  - At least one time a year;
  - Provide updates on KCP&L energy efficiency applications, program updates, budgets/goals, etc.; and
  - Facilitate networking.
- Determine content for partner-only web portal.

- Provide information and documentation on KCP&L's programs, procedures, policies and contacts; and
- Provide reporting and marketing tools.
- Provide marketing support to drive product participation with available co-op dollars as necessary.

Lastly, KCP&L will evaluate other channel partners such as developers, remodelers, auditors, property managers and industry associations such as the National Association of the Remodeling Industry (NARI) that could provide information on the Cool Homes Program to its customer base. Also, additional commercial HVAC dealers will be sought to join the program.

**C. Program Delivery**

Currently, the Cool Homes Program is implemented in KCP&L jurisdictions (Kansas and Missouri) and GMO jurisdictions (MPS and L&P). There have been efficiencies gained by offering the program across all jurisdictions. KCP&L will use a program administrator with experience delivering proven energy efficiency and renewable energy solutions to electric and gas utilities, energy services companies, and institutional customers nationwide.

**Customer Incentives**

KCP&L customers, who use participating Cool Homes HVAC contractors to test, repair, and/or replace working cooling systems with high-efficiency equipment rated at 14 SEER or above may be eligible for a rebate after certain criteria are met. Customers must have a central A/C or heat pump system in working condition and only systems with a nameplate or operating EER of 8.0 or less are eligible for an early-replacement rebate incentive. Under the Cool Homes Program, existing units that do not meet the nameplate EER threshold (8.0 EER or less) are not eligible for early replacement incentives unless the operating EER is 8.0 or less and refrigerant charge is correct. Customers with non-operational or existing equipment operating above an 8.0 EER which do not qualify for early-replacement incentives may be eligible for a reduced rebate incentive for upgrading to a 15 SEER or higher system.

Rebates are applied (per cooling system replaced), toward the purchase of either a high-efficiency A/C or heat pump when evaluated and installed by a Cool Homes HVAC service contractor. Proposed rebates are shown below.

<b>Residential Central Air Conditioning Systems:</b>	<b>Total Incentive</b>
Rated or operating EER ≤ 8.0 replaced with 14 or 15 SEER	\$650
Rated or operating EER ≤ 8.0 replaced with 16 SEER or higher	\$850
Rated or operating EER > 8.0 or non-operational unit replaced with 15 SEER or higher	\$100

To address the inefficiencies of existing equipment in the market, KCP&L customers are also allowed a one-time maintenance tune-up, even if they do not purchase a new system. If the cooling system can be brought back to manufacturers' specifications, limited services such as recharging the cooling refrigerant, providing non-ductwork airflow adjustments and basic air filter cleaning or replacement may be provided by the contractor as part of the service incentive provided by KCP&L. If repairs are needed to service the equipment, customers will receive a quote for additional costs.

In addition, customers who request and receive a cooling system evaluation have the option of receiving a free 6-pack of varying wattage compact fluorescent lamps (CFLs).

### ***Contractor Incentives***

A key feature of the Cool Homes Program design is to pay incentives directly to the HVAC contractors rather than to use a customer rebate approach. The program achieves several benefits by giving contractors direct control of the incentives by:

- Allowing the contractor to embed the incentive in the value proposition the contractor presents to the customer and to combine it with manufacturer promotions.
- Making it easier for the customer to buy, as the customer need pay only the price net of rebate rather than fronting the full amount and receiving the rebate portion later.
- Reducing the number of payments the program makes by aggregating them at the contractor level.

Proposed incentives provided to contractors are shown below:

<b>Payment Incentives for Air Conditioner or Heat Pump Diagnostic Test and Airflow Repairs (Contractor incentives)</b>	<b>Incentive</b>
System operating efficiency analysis only	\$20
System operating efficiency analysis and repair	\$35
Refrigerant charge or airflow adjustments/filter replacement	\$55

The program administrator pays a \$20 incentive for those systems tested, but no repairs are made; however a contractor will receive a \$35 incentive if repairs are also made. Contractors may also receive an additional \$55 upon completion of proper airflow and coolant recharge if the system requires it. This incentive is paid only once, as the contractor is required to perform initial refrigerant charge adjustments on new installations.

**D. Partners**

KCP&L will use a program administrator with experience delivering proven energy efficiency and renewable energy solutions to electric and gas utilities, energy services companies, and institutional customers nationwide.

The program administrator will use direct real-time connections with the technician during testing and verification and a computer expert system of immediate measurement evaluation and immediate human technical support detects any problems while the technician is still at the site and provides immediate solutions. Experience has shown that use of a quality assurance system process is extremely effective in obtaining proper application of the measure and the required energy savings/peak reductions.

HVAC companies and their technicians are also key partners to the success of Cool Homes. Technicians are trained in the program on the process and the details of the program.



**4. Program Budget (Five-Year)**

Since the Program is an established program, KCP&L does not have any start-up costs. The expected budget for the Cool Homes Program over the five-year period is shown below. Please note that Admin includes Delivery and Marketing costs.

	Start-up	Admin	Delivery	Marketing	Incentive	M&V	Total
Year 1	**						**
Year 2	**						**
Year 3	**						**
Year 4	**						**
Year 5	**						**
Total	**						**

**5. Program Beneficiaries**

**A. Expected number of participants by customer class or subclass**

The number of program end use measures (net-free) expected to be undertaken by residential Kansas customers over the five-year period is shown below.

	Kansas Annual End Use Program Measures (Net-Free)	
Year 1	**	**
Year 2	**	**
Year 3	**	**
Year 4	**	**
Year 5	**	**
Total	**	**

**B. Other beneficiaries**

No other beneficiaries have been observed.

## 6. Program Cost Benefit Analysis

All five benefit-cost tests are shown below. The dollar values below are on a present value basis with the assumption that all future cash flows start at the beginning of each annual period, discounted at the appropriate discount rate.

<b>Cool Homes Program</b>		
<b>Test Name</b>	<b>Market Based Test Results</b>	<b>Cost Based Test Results</b>
Utility Test	3.02	2.17
TRC Test	2.26	1.62
RIM Test	1.08	0.77
RIM (Net Fuel)	1.34	0.96
Participant Test	2.41	2.41
Societal Test 3% / \$10	2.30	2.48
Societal Test 3% / \$25	2.51	2.69
Societal Test 3% / \$40	2.72	2.90
Societal Test 7% / \$10	2.26	2.44
Societal Test 7% / \$25	2.42	2.61
Societal Test 7% / \$40	2.59	2.77

<b>Assumptions</b>	
Utility Discount Rate (%)	** [REDACTED] **
Participant Discount Rate (%)	10.00%
Electric Losses (%)	** [REDACTED] **
Societal Discount Rate1 (%)	3.00%
Societal Discount Rate2 (%)	7.00%

<b>Avoided Costs</b>	
Avoided T&D (\$ / kW)	** [REDACTED] **
Avoided Market-Based Ancillary Service Charges (OATT)	** [REDACTED] **
Cost-Based Proxy for Avoided Capacity (\$ / kW Annualized)	** [REDACTED] **
CO2 emissions (kG/kWh)	** [REDACTED] **

Cost Based Avoided Electric Production	** [REDACTED] **
Avoided T&D Electric, w OATT	** [REDACTED] **
Avoided Electric Capacity	** [REDACTED] **
<b>Total Cost Based Avoided Costs</b>	** [REDACTED] **

<b>Market Based Avoided Electric Production Costs</b>	** [REDACTED] **
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<b>Program Costs</b>	
Administration Costs	** [REDACTED] **
Implementation / Participation Costs	** [REDACTED] **
Customer Incentives	** [REDACTED] **
Other / Miscellaneous Costs	** [REDACTED] **
<b>Total Program Cost</b>	** [REDACTED] **

<b>Participant Cost</b>	** [REDACTED] **
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<b>Environmental Benefits</b>	<b>@ 3% Discount Rate</b>	<b>@ 7% Discount Rate</b>
\$10 per Ton	** [REDACTED] **	** [REDACTED] **
\$25 per Ton	** [REDACTED] **	** [REDACTED] **
\$40 per Ton	** [REDACTED] **	** [REDACTED] **

<b>Other Environmental Benefits, NOx SOx</b>	** [REDACTED] **
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<b>Lost Revenue</b>	
Gross Lost Revenue, Electric	** [REDACTED] **
Net Fuel Lost Revenue, Electric	** [REDACTED] **

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

Program evaluation, measurement and verification (EM&V) are key elements of demand-side management (DSM) programs. EM&V is used to document and measure the effects of a program and determine whether the program met its goal with respect to being a reliable energy resource. EM&V is also used to help understand why certain effects occurred and identify ways to improve current programs and to select future programs.

The two types of evaluation utilized by KCP&L are:

Process evaluation: Process evaluation assesses program delivery, from design to implementation, in order to identify bottlenecks, efficiencies, what did and did not work, constraints and potential improvements.

Evaluation plans are developed by KCP&L's evaluation contractor(s) and describe all necessary data collection, process evaluation tasks and impact evaluation tasks by program. Evaluation Plans include the following information:

- Study Methodology by Program;
- Data Collection Strategies;
- Data Requests by Program; and
- Detailed Work Plan and Schedule.

Impact evaluation: Impact evaluation determines the impacts (energy and demand savings) and co-benefits (avoided emissions, energy security, transmission/distribution benefits) that directly result from a program. Impact evaluations also support cost-effectiveness analyses aimed at identifying relative program costs and benefits.

The Monitoring and Verification (M&V) process acts as a quality control and quality assurance process for the savings, tracking and accounting for the program.

Monitoring: This is the monitoring of installations when needed to determine or verify savings from a measure that is applied in a unique way, is significant in savings, or is new to the market. Working with the evaluation contractor, guidelines are developed to determine which projects should be monitored.

Verification: During the processing of an application for customer incentives (rebates), KCP&L reviews the equipment specifications by model number to determine if that measure qualifies. This "paper" verification occurs on all applications. Additionally, there are random field visits to assure the correct number and types of measures were installed at the customer's facility.

KCP&L retains one or more M&V contractors to perform process and impact evaluations for its programs in order to avoid conflicts of interest and to insure credibility of the evaluation results. M&V is conducted by the implementation team with advice of the M&V contractor.

At such time that pending Docket No. 10-GIMX-013-GIE is concluded, measurement and verification of the Program will be completed consistent with those requirements established by the Commission.

**8. Program Specific Tariff Schedule**

Please see tariff attached to the testimony of KCP&L witness Curtis Blanc as Schedule CDB-8 for KCP&L's Cool Homes Program, Schedule 13, also referred to as Schedule CHP.

## **Kansas City Power & Light Company**

### **ONLINE ENERGY INFORMATION AND ANALYSIS PROGRAMS**

The following information regarding KCP&L's Online Energy Information and Analysis Programs, also referred to as the Home Energy Analyzer and Business Energy Analyzer, is provided in compliance with Appendix A of the Commission's November 14, 2008 Final Order issued in Docket No. 08-GIMX-441-GIE.

#### **1. Program Description**

KCP&L offers online energy information and analysis programs for its residential and commercial customers. These programs are referred to the Home Energy Analyzer and the Business Energy Analyzer, respectively.

The Home Energy Analyzer allows Kansas residential customers who have internet capability to access their billing information and compare their usage on a daily, weekly, monthly or annual basis. This tool will analyze what end uses comprise what percent of their usage and provide customers information on ways to save energy by end use through a searchable resource center. This tool also allows a customer to analyze why their bill may have varied from one month to another. A home comparison also displays a comparison of the customer's home versus an average similar home via an energy guide label concept.

Similarly, the Business Energy Analyzer allows Kansas business and non-profit customers who have internet capability to access their billing information and compare their usage on a daily, weekly, monthly or annual basis. This tool will analyze what end uses comprise what percent of their usage and provide customers information on ways to save energy by end use through a searchable resource center. Targeted case studies are also included to provide energy saving ideas relevant to the customer's industry. This tool also allows the customer to analyze why their bill may have varied from one month to another. A business comparison also displays usage benchmarking data versus similar types of businesses.

#### **2. Program Goal**

##### **A. Expected energy and demand savings – time horizon**

Because KCP&L is proposing that Home and Business Energy Analyzers be considered educational programs, no energy and demand savings will be attributed to the Programs.

#### **3. Program Framework/Strategy**

##### **A. Relationship to other programs**

The Home and Business Energy Analyzers should be considered a first step

toward becoming energy efficient. These programs require a relatively small time investment from the customer and no financial investment from the customer to learn how to save energy. These programs have a strong relationship through promotion with KCP&L's other demand side management (DSM) programs and will be cross marketed with the DSM programs.

**B. Marketing strategy**

The Home and Business Energy Analyzers will follow an integrated marketing strategy utilizing online and offline media including traditional KCP&L channels such as bill inserts, bill messaging, and customer newsletters. There will be a marketing calendar created every year to stage awareness and participation campaigns with a focus on the summer months.

**C. Program delivery**

The two programs will be managed by a KCP&L staff member and will involve the coordination of vendors for delivery of the online tools. The Home and Business Energy Analyzers will require a vendor to maintain, deliver, and support the online assessment tools.

**4. Program Budget (Five-Year)**

Since the Programs are established programs, KCP&L does not have any start-up costs. The expected budgets for the Home and Business Energy Analyzers, respectively, over the five-year period are shown below.

<b>Home Energy Analyzer</b>						
	<b>Start-up</b>	<b>Admin</b>	<b>Marketing</b>	<b>Customer Incentive</b>	<b>M&amp;V</b>	<b>Total</b>
<b>Year 1</b>	**					**
<b>Year 2</b>	**					**
<b>Year 3</b>	**					**
<b>Year 4</b>	**					**
<b>Year 5</b>	**					**
<b>Total</b>	**					**

<b>Business Energy Analyzer</b>						
	<b>Start-up</b>	<b>Admin</b>	<b>Marketing</b>	<b>Customer Incentive</b>	<b>M&amp;V</b>	<b>Total</b>
<b>Year 1</b>	** [redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]**
<b>Year 2</b>	** [redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]**
<b>Year 3</b>	** [redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]**
<b>Year 4</b>	** [redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]**
<b>Year 5</b>	** [redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]**
<b>Total</b>	** [redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]**

**5. Program Beneficiaries**

**A. Expected number of participants by customer class or subclass**

The expected numbers of residential and commercial participants over the five year period are shown below for the Home and Business Energy Analyzers, respectively.

	<b>Kansas Residential Participants</b>	<b>Kansas Commercial Participants</b>
<b>Year 1</b>	** [redacted]	[redacted]**
<b>Year 2</b>	** [redacted]	[redacted]**
<b>Year 3</b>	** [redacted]	[redacted]**
<b>Year 4</b>	** [redacted]	[redacted]**
<b>Year 5</b>	** [redacted]	[redacted]**
<b>Total</b>	** [redacted]	[redacted]**

**B. Other beneficiaries**

No other beneficiaries have been observed.

**6. Program Benefit-Cost Analysis**

In Docket No. 08-GIMX-441-GIV, page 16, the Commission ordered "...the Commission finds that it will not subject education programs to benefit-cost analysis but will require utilities to provide extensive explanations of the programs and their attendant costs, evidence of usefulness in other jurisdictions, and any additional information the utility believes will support the implementation of an education program." Therefore, because the Home and Business Energy Analyzers are considered education programs, we have not included a program



benefit-cost analysis.

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

Program evaluation, measurement and verification (EM&V) are key elements of demand-side management (DSM) programs. EM&V is used to document and measure the effects of a program and determine whether the program met its goal with respect to being a reliable energy resource. EM&V is also used to help understand why certain effects occurred and identify ways to improve current programs and to select future programs.

The two types of evaluation utilized by KCP&L are:

Process evaluation: Process evaluation assesses program delivery, from design to implementation, in order to identify bottlenecks, efficiencies, what did and did not work, constraints and potential improvements.

Evaluation plans are developed by KCP&L's evaluation contractor(s) and describe all necessary data collection, process evaluation tasks and impact evaluation tasks by program. Evaluation Plans include the following information:

- Study Methodology by Program;
- Data Collection Strategies;
- Data Requests by Program; and
- Detailed Work Plan and Schedule.

Impact evaluation: Impact evaluation determines the impacts (energy and demand savings) and co-benefits (avoided emissions, energy security, transmission/distribution benefits) that directly result from a program. Impact evaluations also support cost-effectiveness analyses aimed at identifying relative program costs and benefits.

The Monitoring and Verification (M&V) process acts as a quality control and quality assurance process for the savings, tracking and accounting for the program.

Monitoring: This is the monitoring of installations when needed to determine or verify savings from a measure that is applied in a unique way, is significant in savings, or is new to the market. Working with the evaluation contractor, guidelines are developed to determine which projects should be monitored.

Verification: During the processing of an application for customer incentives (rebates), KCP&L reviews the equipment specifications by model number to determine if that measure qualifies. This "paper" verification occurs on all applications. Additionally, there are random field visits to assure the correct number and types of measures were installed at the customer's facility.

KCP&L retains one or more M&V contractors to perform process and impact evaluations for its programs in order to avoid conflicts of interest and to insure credibility of the evaluation results. M&V is conducted by the implementation team with advice of the M&V contractor.

At such time that pending Docket No. 10-GIMX-013-GIE is concluded, measurement and verification of the Program will be completed consistent with those requirements established by the Commission.

**8. Program Specific Tariff Schedule**

Not applicable.

## Kansas City Power & Light Company

### ENERGY SAVER LOAN PROGRAM, PARTNERING WITH EFFICIENCY KANSAS

The following information regarding KCP&L's Energy Saver Loan Program is provided in compliance with Appendix A of the Commission's November 14, 2008 Final Order issued in Docket No. 08-GIMX-441-GIE. This Program is set forth in KCP&L's pending tariff Schedule 17, also referred to as Schedule ESLP, provided with this filing.

#### 1. Program Description

The Energy Saver Loan Program (Program) provides loans to qualifying Customers for energy efficiency improvements. KCP&L's Energy Saver Loan partners with Efficiency Kansas. Efficiency Kansas is a revolving loan fund established by the Kansas Corporation Commission (KCC) to facilitate energy conservation and efficiency improvements in Kansas homes and small businesses. Operated by the State Energy Office (SEO), Efficiency Kansas is funded by federal economic stimulus dollars, which were authorized by the American Recovery and Reinvestment Act of 2009 (ARRA).

KCP&L will adhere to the guidelines outlined in the KCC/SEO "Efficiency Kansas, Program Manual, Guidelines for Participants, Partner Utilities, and Partner Banks" and per its filed tariff.

#### 2. Program Goal

##### A. Expected energy and demand savings – time horizon

The expected annual, cumulative energy and demand savings for the Energy Saver Loan Program over the estimated life of the program is shown below.

	Program Energy Savings (kWh)	Program Demand Savings (kW)
<b>Year 1</b>	** [REDACTED]	[REDACTED]**
<b>Year 2</b>	** [REDACTED]	[REDACTED]**
<b>Year 3</b>	** [REDACTED]	[REDACTED]**
<b>Year 4</b>	** [REDACTED]	[REDACTED]**
<b>Year 5</b>	** [REDACTED]	[REDACTED]**
<b>Year 6</b>	** [REDACTED]	[REDACTED]**
<b>Year 7</b>	** [REDACTED]	[REDACTED]**
<b>Year 8</b>	** [REDACTED]	[REDACTED]**
<b>Year 9</b>	** [REDACTED]	[REDACTED]**
<b>Year 10</b>	** [REDACTED]	[REDACTED]**

<b>Year 11</b>	** [REDACTED]	[REDACTED]**
<b>Year 12</b>	** [REDACTED]	[REDACTED]**
<b>Year 13</b>	** [REDACTED]	[REDACTED]**
<b>Year 14</b>	** [REDACTED]	[REDACTED]**
<b>Year 15</b>	** [REDACTED]	[REDACTED]**
<b>Year 16</b>	** [REDACTED]	[REDACTED]**
<b>Year 17</b>	** [REDACTED]	[REDACTED]**
<b>Year 18</b>	** [REDACTED]	[REDACTED]**
<b>Year 19</b>	** [REDACTED]	[REDACTED]**
<b>Year 20</b>	** [REDACTED]	[REDACTED]**
<b>Year 21</b>	** [REDACTED]	[REDACTED]**
<b>Year 22</b>	** [REDACTED]	[REDACTED]**
<b>Year 23</b>	** [REDACTED]	[REDACTED]**
<b>Year 24</b>	** [REDACTED]	[REDACTED]**

### **3. Program Framework/Strategy**

#### **A. Relationship to other programs**

The Energy Saver Loan Program will offer opportunities to co-market with KCP&L's existing and proposed demand side management (DSM) programs.

A customer will not be able to receive a rebate from KCP&L's existing programs (such as Cool Homes or Commercial and Industrial Rebate Programs) and also participate in the Energy Saver Loan Program for the same measure. From KCP&L's perspective, energy savings cannot be double counted between programs. For example, a customer who is eligible for a Cool Homes rebate would not be eligible to finance the replacement air conditioner through the Energy Saver Loan Program. However, a customer would be eligible for the Energy Saver Loan Program for any additional recommended measures, such as insulation or other building shell improvements that meet the eligibility requirements of the loan program.

Similarly General Service customers who qualify for the Energy Saver Loan Program may also qualify for KCP&L's Commercial and Industrial Rebate Program; however a customer cannot pursue a rebate and a loan for the same measure. The two most likely measures that an auditor would recommend to a general service customer that uses HVAC equipment equivalent to that of a residential customer are upgrades to their lighting or air conditioning equipment. The audit that is required through the Energy Saver Loan Program will educate the customer and help them to understand what energy efficiency measures that

they should implement. A customer may then elect to take advantage of each program for differing measures; however.

The Energy Saver Loan Program also fits well with KCP&L's Energy Optimizer program, which provides a customer with a programmable thermostat at no cost. Again, there is significant cross promotion opportunity to emphasize energy savings measures that customers may implement.

It is also anticipated that the Energy Saver Loan Program may be marketed with KCP&L's online energy efficiency tools, such as Business and Home Energy Analyzer, as well as a customer's access to electric usage, such as AccountLink.

#### **B. Marketing strategy**

The relationship between KCP&L's Energy Saver Loan Program and the Efficiency Kansas loan program will be expressed as a partnership. Promotional materials produced by KCP&L that utilize Efficiency Kansas funds will include language expressing this relationship. KCP&L will promote its program as "Energy Saver Loan Program, an Efficiency Kansas partner".

KCP&L anticipates that the target market for the Energy Saver Loan program to be largely residential, single family units and small business customers.

#### **Residential Customers**

As discussed earlier, with regard to residential customers, KCP&L's existing DSM suite of products will enhance the ability to market the program. The following are examples of existing and proposed KCP&L residential programs that will be used to cross sell the Energy Saver Loan Program:

- Cool Homes,
- Energy Optimizer,
- Home Energy Analyzer, and
- Accountlink.

Examples of marketing tactics include:

- Create customer fulfillment kit to be sent upon credit approval,
- Develop program specific information on [kcpl.com](http://kcpl.com) and the KCP&L residential newsletter *The Wire*,
- Allow for program specific bill messaging on KCP&L's Kansas residential bills, and/or
- Provide information to Kansas Homeowner Associations.

#### **Commercial Customers**

With regard to eligible commercial customers, the Energy Saver Loan Program marketing and sales plan consists of educating small commercial customers about the program through targeted efforts made by Energy Consultants and Commercial Consultants. Energy and Commercial Consultants will leverage

existing relationships with assigned customers who hold small general service accounts and meet the eligibility criteria to create interest and participation in the Energy Saver Loan Program. Commercial Consultants will also leverage our existing customer programs in order to offer a complete energy solutions approach for small commercial customers.

In 2009 KCP&L performed marketing efforts in its KCP&L Missouri territory with small business general service customers who lease space from property managers and found that a significant hurdle to making energy efficient improvements is funding. We have identified that this hurdle may be minimized with zero interest loans from Efficiency Kansas, the ability to fund the loan through energy savings, and no additional lien against the property. Property managers who pay for capital improvements to the space will have the additional flexibility of funding the improvement through savings, disclosing this to tenants, and passing the loan on to future tenants with no out of pocket expense.

The following are examples of existing KCP&L commercial programs that will be used to cross sell the Energy Saver Loan Program:

- C&I Rebate Program,
- Energy Audit Rebate Program,
- Business Energy Analyzer,
- Energy Optimizer, and/or
- Accountlink.

Examples of marketing tactics will include:

- Create customer fulfillment kit to be sent upon credit approval,
- Develop program specific information on [kcpl.com](http://kcpl.com) and the KCP&L commercial newsletter *The Wire*,
- Allow for program specific bill messaging on KCP&L's Kansas small commercial bills, and/or
- Provide information to Chamber of Commerce newsletters.

### **Trade Allies**

It will be important to educate not only KCP&L customers, but trade allies as well.

These will include:

- HVAC Dealers,
- Home Improvement & Energy Efficiency Contractors,
- Realtors,
- Trade Organizations, and
- Community Organizations.

The following are trade ally delivery methods used to increase education and participation in the Energy Saver Loan Program:

- Trade ally seminars and webinars.

- One on one trade ally meetings.
- Articles in channels organization newsletters. and
- Participation in channels organization events.

**C. Program delivery (in house/third party)**

KCP&L will manage the program with internal resources. The program will delivered through the following process.

1. The Company will promote the Program to Residential and Small General Service commercial customers through appropriate communication channels and media. The Company will also coordinate with the SEO to increase public awareness of the Program and Efficiency Kansas financing.
2. Interested Customers will respond by calling the Company.
3. The Company will pre-qualify a Customer. If a Customer meets the Company's eligibility criteria, the Company will refer the Customer to the list of qualified Auditors.
4. The Customer will set an appointment with the Auditor.
5. The Auditor will perform an Audit, explain the terms of the Program, and develop an Energy Conservation Plan. The Auditor will develop the monthly Program Charge and share with the Customer.
6. The Auditor will collect the Audit Fee from the Customer.
7. The Customer will select a Contractor(s) to complete the measure(s) deemed as being the most cost effective and will receive a bid(s) from the Contractor(s).
8. The Customer will submit the ECP and the selected bid(s) to the Company.
9. The Company will submit the ECP and the selected bid(s) to the SEO for review.
10. The SEO will notify the Company of approval or disapproval.
11. The Company will notify the Customer of approval or disapproval.
12. If approved, the Customer will engage the Contractor to implement the measure(s).
13. Upon completion, the Customer will notify the Auditor. The Auditor will determine if a post- retrofit audit is required and schedule with the Customer.
14. If measures are implemented satisfactorily, the Auditor and Customer will sign a Certificate of Completion. Customer's and Landlord's (if applicable) signature of the Certificate of Completion shall indicate acceptance of the ECP and terms of repayment.
15. The Customer will submit the Certificate of Completion to the Company.
16. The Company will sign the Certificate of Completion and submit to the SEO.
17. The KCC will disperse the Loan Amount to the Company.
18. The Company will pay the Loan Amount to the Contractor.
19. The Company will place the Monthly Program Charge to appear on the Customer's bill.

20. The Company will submit the sum of the Monthly Program Charge collected to the KCC on a monthly basis and will adhere to the requirements outlined in Option 1 of "*Efficiency Kansas, Program Manual, Guidelines for Participants, Partner Utilities, and Partner Banks*" developed by the KCC and SEO.
21. A Customer may opt to pay the remaining principal loan amount at any time during the repayment term. The Company will not assess any pre-payment penalty
22. The Company will file a KCC-approved notice filing, and renew as needed, for each property since the Loan Amount will be Premise Based and will survive change in tenancy.
23. The Company will provide written notification of the loan obligation to Customers when service is initiated since the Loan Amount will be Premise Based and will survive change in tenancy.
24. The Monthly Program Charge shall be treated the same as Company's charges for electric service for purposes of the KCC Billing Standards. Failure to make payment may result in disconnection in accordance with the Company's approved Terms and Conditions.
25. The Company will provide due diligence and prudent procedure in collection of non-payments.

**D. Partners**

KCP&L will work closely with the KCC/SEO to deliver the program in accordance with the guidelines outlined in the KCC/SEO "*Efficiency Kansas, Program Manual, Guidelines for Participants, Partner Utilities, and Partner Banks*", per its filed tariff, and executed Memorandum of Understanding.



**4. Program Budget (Five-Year)**

The expected budget for the Energy Saver Loan Program over the five-year period is shown below.

	Start-up	Admin	Marketing	Program Delivery <sup>(1)</sup>	Incentive	M&V	Total
Year 1	** [redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]**
Year 2	** [redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]**
Year 3	** [redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]**
Year 4	** [redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]**
Year 5	** [redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]**
Total	** [redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]**

(1) Program delivery costs include the KCC-approved notice filing cost per participant.

**5. Program Beneficiaries**

**A. Expected number of participants by customer class or subclass**

It is expected that the majority of the participants will be Residential customers; however we foresee that there may be interest from small business owners who typically have difficulty finding a means to finance energy efficiency measurements. This program will alleviate this burden by offering financing that is premise based.

The number of expected program end use measures (net-free) expected to be undertaken by Kansas customers over the five-year period is shown below.

	Kansas Annual End Use Program Measures (Net-Free)
Year 1	** [redacted]**
Year 2	** [redacted]**
Year 3	** [redacted]**
Year 4	** [redacted]**
Year 5	** [redacted]**
Total	** [redacted]**

**B. Other beneficiaries**

No other beneficiaries have been observed.

## 6. Program Benefit-Cost Analysis

All five benefit-cost tests are shown below. The dollar values below are on a present value basis with the assumption that all future cash flows start at the beginning of each annual period, discounted at the appropriate discount rate.

<b>Energy Saver Loan Program</b>		
<b>Test Name</b>	<b>Market Based Test Results</b>	<b>Cost Based Test Results</b>
Utility Test	29.04	20.53
TRC Test	2.61	1.85
RIM Test	1.52	1.07
RIM (Net Fuel)	2.12	1.50
Participant Test	1.79	1.79
Societal Test 3% / \$10	2.95	3.08
Societal Test 3% / \$25	3.23	3.36
Societal Test 3% / \$40	3.51	3.64
Societal Test 7% / \$10	2.90	3.03
Societal Test 7% / \$25	3.09	3.23
Societal Test 7% / \$40	3.29	3.43

<b>Assumptions</b>	
Utility Discount Rate (%)	** [REDACTED] **
Participant Discount Rate (%)	10.00%
Electric Losses (%)	** [REDACTED] **
Societal Discount Rate1 (%)	3.00%
Societal Discount Rate2 (%)	7.00%

<b>Avoided Costs</b>	
Avoided T&D (\$ / kW)	** [REDACTED] **
Avoided Market-Based Ancillary Service Charges (OATT)	** [REDACTED] **
Cost-Based Proxy for Avoided Capacity (\$ / kW Annualized)	** [REDACTED] **
CO2 emissions (kG/kWh)	** [REDACTED] **

Cost Based Avoided Electric Production	** [REDACTED] **
Avoided T&D Electric, w OATT	** [REDACTED] **
Avoided Electric Capacity	** [REDACTED] **
<b>Total Cost Based Avoided Costs</b>	** [REDACTED] **

<b>Market Based Avoided Electric Production Costs</b>	** [REDACTED] **
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<b>Program Costs</b>	
Administration Costs	** [REDACTED] **
Implementation / Participation Costs	** [REDACTED] **
Customer Incentives	** [REDACTED] **
<u>Other / Miscellaneous Costs</u>	** [REDACTED] **
<b>Total Program Cost</b>	** [REDACTED] **

<b>Participant Cost</b>	** [REDACTED] **
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<b>Environmental Benefits</b>	<b>@ 3% Discount Rate</b>	<b>@ 7% Discount Rate</b>
\$10 per Ton	** [REDACTED] **	** [REDACTED] **
\$25 per Ton	** [REDACTED] **	** [REDACTED] **
\$40 per Ton	** [REDACTED] **	** [REDACTED] **

<b>Other Environmental Benefits, NOx SOx</b>	** [REDACTED] **
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<b>Lost Revenue</b>	
Gross Lost Revenue, Electric	** [REDACTED] **
Net Fuel Lost Revenue, Electric	** [REDACTED] **

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

Program evaluation, measurement and verification (EM&V) are key elements of demand-side management (DSM) programs. EM&V is used to document and measure the effects of a program and determine whether the program met its goal with respect to being a reliable energy resource. EM&V is also used to help understand why certain effects occurred and identify ways to improve current programs and to select future programs.

The two types of evaluation utilized by KCP&L are:

- **Process evaluation:** Process evaluation assesses program delivery, from design to implementation, in order to identify bottlenecks, efficiencies, what did and did not work, constraints and potential improvements.

Evaluation plans are developed by KCP&L's evaluation contractor(s) and describe all necessary data collection, process evaluation tasks and impact evaluation tasks by program. Evaluation Plans include the following information:

- Study Methodology by Program;
  - Data Collection Strategies;
  - Data Requests by Program; and
  - Detailed Work Plan and Schedule.
- **Impact evaluation:** Impact evaluation determines the impacts (energy and demand savings) and co-benefits (avoided emissions, energy security, transmission/distribution benefits) that directly result from a program. Impact evaluations also support cost-effectiveness analyses aimed at identifying relative program costs and benefits.

The Monitoring and Verification (M&V) process acts as a quality control and quality assurance process for the savings, tracking and accounting for the program.

- **Monitoring:** This is the monitoring of installations when needed to determine or verify savings from a measure that is applied in a unique way, is significant in savings, or is new to the market. Working with the evaluation contractor, guidelines are developed to determine which projects should be monitored.
- **Verification:** During the processing of an application for customer incentives (rebates), KCP&L reviews the equipment specifications by model number to determine if that measure qualifies. This "paper" verification occurs on all applications. Additionally, there are random field visits to assure the correct number and types of measures were installed at the customer's facility.

KCP&L retains one or more M&V contractors to perform process and impact evaluations for its programs in order to avoid conflicts of interest and to insure

credibility of the evaluation results. M&V is conducted by the implementation team with advice of the M&V contractor.

At such time that pending Docket No. 10-GIMX-013-GIE is concluded, measurement and verification of the Program will be completed consistent with those requirements established by the Commission.

**8. Program Specific Tariff Schedule**

Please see proposed tariff attached to the testimony of KCP&L witness Curtis Blanc as Schedule CDB-5 for KCP&L's Energy Saver Loan Program, Schedule 17, also referred to as Schedule ESLP.

## **Kansas City Power & Light Company**

### **ENERGY OPTIMIZER PROGRAM**

The following information regarding KCP&L's Residential, Small and Medium General Service Air Conditioner Cycling Rider, Schedule EO, is provided in compliance with Appendix A of the Commission's November 14, 2008 Final Order issued in Docket No. 08-GIMX-441-GIE. This Program is set forth in KCP&L's pending tariff Schedule 7, also referred to as Schedule EO, provided with this filing.

#### **1. Program Description**

KCP&L's Residential, Small and Medium General Service Air Conditioner Cycling Rider or Energy Optimizer (EO) Program addresses the need for load reduction on KCP&L's system on peak summer days. This demand response program focuses on residential and small to mid-tier commercial customers with peak demand less than 200 kW.

Customers who partner with KCP&L in this program will receive a free programmable thermostat that they can use to control their energy use throughout the year. Programmable thermostats can help reduce heating and cooling costs by automatically adjusting temperature settings throughout the day to match homeowners' schedules. The thermostat is maintained for free and can be accessed via the Internet as long as a participant remains in the program.

The Company achieves load reduction with EO Program by sending a signal to the customer's thermostat. The signal contains instructions that are used by the thermostat to enact one of several possible load reduction strategies:

- The thermostat can cycle the outdoor compressor on and off at a level set by KCP&L;
- The thermostat can adjust the temperature by immediately raising the temperature several degrees at the beginning of an event;
- The thermostat can raise the temperature one degree per hour for a few hours; or
- A one hour pre-cooling option is available whereby the temperature of a building is lowered by a few degrees before the start of a cycling event.

The EO Program is designed to run from June 1 to September 30. Curtailments can be called on weekdays only, with no limit on the total number of curtailments or number of consecutive days curtailed. Curtailment length is limited to a maximum of four hours per day per participant. The overall curtailment period can be lengthened by strategically and sequentially curtailing load across the service territory (although this will reduce the maximum load reduction available for any one event). Program participants are permitted to override the system

once per month and must communicate their override request via the Internet or by phone.

## 2. Program Goal

### A. Expected energy and demand savings:

As of December 31, 2009, the program had \*\*██████████\*\* participants in Kansas, providing \*\*██████████\*\* MW of load reduction. Historically, the Energy Optimizer Program has achieved approximately \*\*██████████\*\* kW of load reduction per unit in single family homes and approximately \*\*██████████\*\* kW in multi-family housing units. The commercial market has not undergone an evaluation, measurement, and verification (EM&V) study to date. A detailed EM&V study will be conducted in 2011 to determine load reductions achieved in that market. It is expected that they will be significantly higher than those achieved in the single-family residential market.

Given this prior experience, the expected annual, cumulative energy and demand savings are expected to be as follows:

	Gross Annual Incremental Installs Year End	Program Energy Savings Net Free (kWh)	Program Demand Reduction Net Free (kW)
Year 1	**██████████	██████████	██████████**
Year 2	**██████████	██████████	██████████**
Year 3	**██████████	██████████	██████████**
Year 4	**██████████	██████████	██████████**
Year 5	**██████████	██████████	██████████**

## 3. Program Framework/Strategy

### A. Relationship to other programs

The EO Program has a natural synergy with KCP&L's Cool Homes program, a program designed to incent the replacement of inefficient air conditioners. KCP&L's existing DSM suite of products will enhance the ability to market the EO Program.

### B. Marketing strategy

The following communications channels are examples of the channels used to reach customers with the EO marketing message:

- Promote program on [www.kcpl.com](http://www.kcpl.com) home page, within [www.kcpl.com](http://www.kcpl.com), and on the AccountLink and Home Energy Analyzer portals;
- Bill messages and bill inserts;

- Html email;
- The Wire residential newsletter;
- Homeowner association newsletters;
- Participation in community events such as Earth Day, Home Shows, and employee fairs held by KCP&L commercial customers for their employees;
- Participation in Chamber of Commerce meetings to increase general awareness of the program and distribute program promotional materials; and
- Direct mail, as needed.

#### Web Presence:

The Energy Optimizer website will serve as an information source to existing and new participants, promoting an understanding of program benefits, promoting the referral program, and providing a link to (the program's current implementer) Honeywell's call center.

Current website capabilities include online enrollment and a thermostat control center.

#### Sales Approach:

EO is sold to the residential market primarily through direct marketing. There is some face-to-face selling that occurs at home shows and community events, but its impact is minimal. Direct marketing will be used with the commercial market as well, but it will be heavily supplemented by the direct sales efforts of KCP&L's account management group.

The Energy Optimizer program is easy to understand, and as such, a KCP&L sales representative can be trained on how to sell the program with one or two brief one-on-one or group training sessions. These training sessions will be conducted as needed as new sales representatives come on board. Most key accounts will be presented with the Optimizer message by their KCP&L sales representatives.

### **C. Program Delivery**

This program is a turn-key program provided by Honeywell Utility Solutions. Honeywell supplies the call center, marketing, appointment setting, installation and service. This program is managed by a KCP&L Product Manager.

### **D. Partners**

Honeywell Utility Solutions is currently the primary partner for the EO program, providing marketing, appointment setting, installation and ongoing customer service.



**4. Program Budget (Five-Year)**

Since the EO Program is an established program, KCP&L does not have any start-up costs. The expected budget for the EO Program over the five-year period is shown below.

	<b>Program Delivery</b>	<b>Admin</b>	<b>Marketing</b>	<b>Customer Incentive</b>	<b>M&amp;V</b>	<b>Total</b>
<b>Year 1</b>	** [REDACTED] **	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED] **
<b>Year 2</b>	** [REDACTED] **	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED] **
<b>Year 3</b>	** [REDACTED] **	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED] **
<b>Year 4</b>	** [REDACTED] **	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED] **
<b>Year 5</b>	** [REDACTED] **	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED] **
<b>Total</b>	** [REDACTED] **	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED] **

**5. Program Beneficiaries**

**A. Expected number of participants by customer class**

Participation among classes of customers is expected to be as follows:

<b>Market Segment</b>	<b>Gross Five-Year New Installations</b>
<b>Single Family</b>	** [REDACTED] **
<b>Multi Family</b>	** [REDACTED] **
<b>Commercial</b>	** [REDACTED] **
<b>Total</b>	** [REDACTED] **

**B. Other beneficiaries**

All KCP&L customers will benefit from the fact that this demand response offering serves as a lower-cost option than building a peaking power plant to meet peak system demand.

## 6. Program Benefit-Cost Analysis

All five benefit-cost tests are shown below. The dollar values below are on a present value basis with the assumption that all future cash flows start at the beginning of each annual period, discounted at the appropriate discount rate.

<b>Optimizer Program</b>		
<b>Test Name</b>	<b>Market Based Test Results</b>	<b>Cost Based Test Results</b>
Utility Test	1.55	1.55
TRC Test	1.85	1.85
RIM Test	1.55	1.55
RIM (Net Fuel)	1.55	1.55
Participant Test	1.30	1.30
Societal Test 3% / \$10	2.39	2.39
Societal Test 3% / \$25	2.39	2.39
Societal Test 3% / \$40	2.39	2.39
Societal Test 7% / \$10	2.39	2.39
Societal Test 7% / \$25	2.39	2.39
Societal Test 7% / \$40	2.39	2.39

<b>Assumptions</b>	
Utility Discount Rate (%)	** [REDACTED] **
Participant Discount Rate (%)	10.00%
Electric Losses (%)	** [REDACTED] **
Societal Discount Rate1 (%)	3.00%
Societal Discount Rate2 (%)	7.00%

<b>Avoided Costs</b>	
Avoided T&D (\$ / kW)	** [REDACTED] **
Avoided Market-Based Ancillary Service Charges (OATT)	** [REDACTED] **
Cost-Based Proxy for Avoided Capacity (\$ / kW Annualized)	** [REDACTED] **
CO2 emissions (kg/kWh)	** [REDACTED] **

Cost Based Avoided Electric Production	** [REDACTED] **
Avoided T&D Electric, w OATT	** [REDACTED] **
Avoided Electric Capacity	** [REDACTED] **
<b>Total Cost Based Avoided Costs</b>	** [REDACTED] **

<b>Market Based Avoided Electric Production Costs</b>	** [REDACTED] **
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<b>Program Costs</b>	
Administration Costs	** [REDACTED] **
Implementation / Participation Costs	** [REDACTED] **
Customer Incentives	** [REDACTED] **
Other / Miscellaneous Costs	** [REDACTED] **
<b>Total Program Cost</b>	** [REDACTED] **

<b>Participant Cost</b>	** [REDACTED] **
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<b>Environmental Benefits</b>	<b>@ 3% Discount Rate</b>	<b>@ 7% Discount Rate</b>
\$10 per Ton	** [REDACTED] **	** [REDACTED] **
\$25 per Ton	** [REDACTED] **	** [REDACTED] **
\$40 per Ton	** [REDACTED] **	** [REDACTED] **

<b>Other Environmental Benefits, NOx SOx</b>	** [REDACTED] **
--	------------------

<b>Lost Revenue</b>	
Gross Lost Revenue, Electric	** [REDACTED] **
Net Fuel Lost Revenue, Electric	** [REDACTED] **

## 7. Program Evaluation, Measurement and Verification Plan

Program evaluation, measurement and verification (EM&V) are key elements of demand side management (DSM) programs. EM&V is used to document and measure the effects of a program and determine whether the program met its goal with respect to being a reliable energy resource. EM&V is also used to help understand why certain effects occurred and identify ways to improve current programs and to select future programs.

The two types of evaluation utilized by KCP&L are:

Process evaluation: Process evaluation assesses program delivery, from design to implementation, in order to identify bottlenecks, efficiencies, what did and did not work, constraints and potential improvements.

Evaluation plans are developed by KCP&L's evaluation contractor(s) and describe all necessary data collection, process evaluation tasks and impact evaluation tasks by program. Evaluation Plans include the following information:

- Study Methodology by Program;
- Data Collection Strategies;
- Data Requests by Program; and
- Detailed Work Plan and Schedule.

Impact evaluation: Impact evaluation determines the impacts (energy and demand savings) and co-benefits (avoided emissions, energy security, transmission/distribution benefits) that directly result from a program. Impact evaluations also support cost-effectiveness analyses aimed at identifying relative program costs and benefits.

The Monitoring and Verification (M&V) process acts as a quality control and quality assurance process for the savings, tracking and accounting for the program.

Monitoring: This is the monitoring of installations when needed to determine or verify savings from a measure that is applied in a unique way, is significant in savings, or is new to the market. Working with the evaluation contractor, guidelines are developed to determine which projects should be monitored.

Verification: During the processing of an application for customer incentives (rebates), KCP&L reviews the equipment specifications by model number to determine if that measure qualifies. This "paper" verification occurs on all applications. Additionally, there are random field visits to assure the correct number and types of measures were installed at the customer's facility.

KCP&L retains one or more M&V contractors to perform process and impact evaluations for its programs in order to avoid conflicts of interest and to insure credibility of the evaluation results. M&V is conducted by the implementation team with advice of the M&V contractor.

At such time that pending Docket No. 10-GIMX-013-GIE is concluded, measurement and verification of the Program will be completed consistent with those requirements established by the Commission.

## **8. Program Specific Tariff Schedule**

Please see tariff attached to the testimony of KCP&L witness Curtis Blanc as Schedule CDB-12 for KCP&L's Residential and Small and Medium General Service Air Conditioner Cycling Rider, Schedule 7, also referred to as Schedule EO.

## **Kansas City Power & Light Company**

### **ENERGY STAR® NEW HOMES PROGRAM**

The following information regarding KCP&L's ENERGY STAR® New Homes Program is provided in compliance with Appendix A of the Commission's November 14, 2008 Final Order issued in Docket No. 08-GIMX-441-GIE. This Program is set forth in KCP&L's pending tariff Schedule 14, also referred to as Schedule NH, provided with this filing.

#### **1. Program Description**

ENERGY STAR® New Homes (ESNH) Program (Program) is a national program developed by the U.S. Environmental Protection Agency (EPA). The program is designed to improve the energy efficiency of the residential construction market by leveraging the ENERGY STAR® brand, the government backed symbol for energy efficiency.

To earn the ENERGY STAR®, a home must be built at least 15 percent more energy efficient than homes that are built to the 2004 International Residential Code (IRC). These standards are based on heating, cooling, and hot water energy use and are typically achieved through a combination of building envelope upgrades, high performance windows, controlled air infiltration, upgraded heating and air conditioning systems, tight duct systems, and upgraded water-heating equipment. ENERGY STAR® homes are typically 20–30 percent more efficient than standard homes.

KCP&L proposes to offer builders a \$2,000 rebate for each home that is built to the ENERGY STAR® requirements. The annual maximum rebate cap per builder, per development will be set at \$150,000.

Homes can be qualified as an ENERGY STAR® new home through two different paths.

1. The prescriptive path uses Building Option Packages, which represent a set of construction specifications for a specific climate zone.
2. The performance path qualifies the home based on a home energy rating.

In addition to the builder incentives, KCP&L will offer technical services that may include builder training, development of a HERS (Home Energy Rating System) infrastructure, as well as sales training. KCP&L will also facilitate customer education through the use of promotional tools within KCP&L's service territory and conduct an evaluation of the program within KCP&L's service territory.

This program was designed in a coordinated effort between the Metropolitan Energy Center (MEC) and the Kansas City Home Builders Association's (KCHBA) Build Green Committee.

**2. Program Goal**

**A. Expected energy and demand savings – time horizon**

The expected annual, cumulative energy and demand savings for the ENERGY STAR® New Homes Program over the estimated life of the program is shown below.

	<b>Program Energy Savings (kWh)</b>	<b>Program Demand Savings (kW)</b>
<b>Year 1</b>	** [REDACTED]	[REDACTED]**
<b>Year 2</b>	** [REDACTED]	[REDACTED]**
<b>Year 3</b>	** [REDACTED]	[REDACTED]**
<b>Year 4</b>	** [REDACTED]	[REDACTED]**
<b>Year 5</b>	** [REDACTED]	[REDACTED]**
<b>Year 6</b>	** [REDACTED]	[REDACTED]**
<b>Year 7</b>	** [REDACTED]	[REDACTED]**
<b>Year 8</b>	** [REDACTED]	[REDACTED]**
<b>Year 9</b>	** [REDACTED]	[REDACTED]**
<b>Year 10</b>	** [REDACTED]	[REDACTED]**
<b>Year 11</b>	** [REDACTED]	[REDACTED]**
<b>Year 12</b>	** [REDACTED]	[REDACTED]**
<b>Year 13</b>	** [REDACTED]	[REDACTED]**
<b>Year 14</b>	** [REDACTED]	[REDACTED]**
<b>Year 15</b>	** [REDACTED]	[REDACTED]**
<b>Year 16</b>	** [REDACTED]	[REDACTED]**
<b>Year 17</b>	** [REDACTED]	[REDACTED]**
<b>Year 18</b>	** [REDACTED]	[REDACTED]**
<b>Year 19</b>	** [REDACTED]	[REDACTED]**
<b>Year 20</b>	** [REDACTED]	[REDACTED]**
<b>Year 21</b>	** [REDACTED]	[REDACTED]**
<b>Year 22</b>	** [REDACTED]	[REDACTED]**
<b>Year 23</b>	** [REDACTED]	[REDACTED]**

**3. Program Framework/Strategy**

**A. Relationship to other programs**

ESNH is a program designed for the residential single family or multi-family housing market and targets the new construction market. Each program will offer

significant opportunity for cross-promotion of KCP&L's other residential demand side management (DSM) programs.

## **B. Marketing strategy**

The ESNH program is designed to provide builders with guidelines and financial incentives to help eliminate any real or perceived cost barriers to building energy efficient homes. The program is also designed to provide customer education. The overall objective is to transform the building industry as such that customers demand energy efficient homes as a result of ENERGY STAR® New Homes. The program leverages the high recognition of the government-backed symbol for energy efficiency the ENERGY STAR® brand.

KCP&L will use a marketing and sales mix that will be focused on recruiting builders throughout KCP&L territories. The primary avenue to recruit builders is through relationships with the homebuilders associations.

The Kansas City Home Builders Association (KCHBA) jurisdiction covers approximately 95 percent of KCP&L's service territory. KCP&L has been an active member the KCHBA for over 50 years. The KCHBA adopted the National Association of Home Builders (NAHB) National Green Building Program's guidelines for certifying homes at Gold, Silver and Bronze levels. ESNH and the Green Build program are complementary programs. A cohesive presentation of the programs can achieve a powerful outreach mechanism to builders.

There are several other Home Builders Association (HBA) Chapters that serve small areas of our outlying territories, including the Lawrence HBA and the Topeka HBA. Given the very limited reach these HBAs have within KCP&L's territory, KCP&L will not obtain membership, however, KCP&L plans to send information and maintain communications.

### Builder Marketing Tactics

KCP&L will utilize the methods described below to reach the targeted builder market.

### Sponsorships/Memberships

KCP&L was a *Presenting Green Sponsor* for the KCHBA in 2009 and has committed to continue the sponsorship in 2010. KCP&L will re-evaluate the opportunity for sponsorship on an annual basis. The sponsorship will allow KCP&L to use marketing mediums through the HBA as well as have access to sales opportunities such as product spotlight presentations that would otherwise not be available. In addition, KCP&L will have access to data that will allow KCP&L to analyze the state of the building market, where builder activity is prominent, types of new construction, etc. This data will allow KCP&L to take a strategic approach to targeted recruitment efforts. KCP&L will also have access to all builder and trade contact information upon request. The current KCHBA sponsorship includes the following features:

- Exclusive listing as Build Green Kansas City sponsor;
- Prominent recognition in all of the Build Green collateral materials;
- Free Advertisement in the Spring Homes Tour Guide or Parade of Homes Guide Build Green Kansas City section;
- Banner advertisement on Build Green Kansas City website with click through capability;
- Button advertisement on other HBA family of websites with click through capability;
- Monthly recognition in Building Business News;
- Tabletop display along with the opportunity to have a short, five minute speech at each Build Green Kansas City event;
- Signage recognition at HBA area council events;
- Two free Registrations to the Green Building for Building Professionals class (2-day class) (Can substitute same price event);
- Permit Reports and Hot Sheets for the Metropolitan Area (all reports) via e-mail for one year;
- Free registration for up to four registrants to all Build Green events (excluding designation classes);
- Four one half page advertisements in *Building Business News*;
- Three one year subscriptions to *Building Business News*;
- Mailing labels of association members available upon request throughout the year; and
- HBA membership dues for one year.

In addition, a KCP&L product and sales representative will maintain membership in the KCHBA's Green Build Council. A representative from KCP&L also serves on the Council's Green Build Executive Committee.

#### Print Communications

Building Business News is a monthly B2B publication of the KCHBA that provide information about the industry and the association. Over 3,000 copies are printed each month and mailed to HBA members along with realtors, council people, legislators and others in governmental positions throughout the Metro area. KCP&L will evaluate the potential to advertise in this medium.

Builder/Architect is a monthly B2B publication serving the residential building industry for the Greater Kansas City area. Each month, Builder/Architect's editor-in-chief creates themed features that focus on topics of interest to its targeted professional readers -- builders, architects and remodelers. KCP&L will evaluate the advertising opportunities available through this B2B magazine.

KCP&L may advertise in the Parade of Homes Tour Guides that are published in the Spring and Fall. The messaging used in these advertisements will be targeted toward the homebuyer.



### Website

ESNH program information, builder benefits, customer benefits, and rebate information will be available at [www.kcpl.com/newhomes](http://www.kcpl.com/newhomes). In addition, the web pages will be linked to [www.energystar.gov](http://www.energystar.gov) where there is a tool to find builders, program sponsors, and energy raters.

- KCP&L's ESNH program will also receive prominent recognition on the KCHBA's Build Green Website with a click through link.
- KCP&L's program will also be linked from the ENERGY STAR® finder tool found at [www.energystar.gov](http://www.energystar.gov).

### Events with KCHBA

**Green Building Events** - These events are held monthly at the KCHBA. Recent events have featured the different sections of the Green Build guidelines (i.e. site development and design, energy efficiency, etc.), as well as guest speakers that have experience in the technical and sales/marketing aspect of green and energy efficient construction practices.

KCP&L will have signage, table top displays, and prominent recognition on all Green Build collateral at every event. With the current sponsorship, KCP&L has the opportunity to take 5 minutes at every event to provide information and updates on the ESNH program.

**Area Council Meetings** - Since there are issues that affect each area of the city, the KCHBA has developed Area Councils with the idea of bringing information that is pertinent to a specific geographic area to the programs presented at those events. There are four HBA Area Councils: MO South (Lee Summit), MO North (Tiffany Green), KS South (Metcalf & 103rd), and Kansas North (being formed). Each meets quarterly and has at least one "green" meeting per year.

KCP&L will attend these events to gain further knowledge of the building market and to build relationships with the builders/trades. As a sponsor, KCP&L signage will be present at each event.

### Co-Marketing with Builders

Marketing budget allocated to co-marketing will be evaluated on a case by case basis and consistent with KCP&L accepted practices. Opportunities that will be considered include outdoor signage that provides indication that the home is ENERGY STAR® qualified. Indoor signage that displays different energy efficient technology along with the corresponding customer benefits will be considered.

### KCP&L Seminars

KCP&L may host ESNH seminars targeting builders and channel allies outside the HBAs target jurisdiction. The purpose of these workshops would be to educate builders and channel allies about ENERGY STAR<sup>®</sup>, KCP&L's program and to recruit builders to participate in the program. Although one purpose of the seminars is to reach builders outside of the HBA's; builders who are HBA members will not be excluded from participating. Leads originating from these seminars will be used for followed up and further recruitment.

### ENERGY STAR<sup>®</sup> Outreach Partnership

In markets where partners agree to use EPA-created advertising to cooperatively promote ENERGY STAR<sup>®</sup> qualified homes in a major local newspaper, new homes guide, billboards, transit ads, radio advertisements, or other media, EPA will complement that commitment with a separate, outreach effort that consist of a Google search campaign.

The Outreach Partnership is designed to provide a sustained local presence for ENERGY STAR<sup>®</sup> and help build consumer awareness of the benefits of ENERGY STAR<sup>®</sup> qualified homes and the builders who offer them. Campaigns should last as long as possible, with a focus on reaching as many potential home buyers in the local market as possible. Ideally, the total campaign should be at least 26 weeks long - 13 weeks for partner placements, 13 weeks for EPA placements. EPA understands that in higher cost media markets, longer runs may not be feasible due to funding limits. In such cases, a shorter run is acceptable.

### **C. Program delivery**

Currently, the ENERGY STAR<sup>®</sup> New Homes Program is implemented in KCP&L jurisdictions (Kansas and Missouri) and GMO jurisdictions (MPS and St. Joseph).

KCP&L will manage the program with an internal program manager. Currently a third party is not being utilized for implementing the ESNH program.

The following process description will be utilized for the delivery of the program.

When a builder commits to building a home to ENERGY STAR<sup>®</sup> standards, the first step is to contact a HERS rater. The builder will work with the HERS rater to determine which is the best path to achieve ENERGY STAR<sup>®</sup> certification; prescriptive or performance. In either path the builder will continue to work with the HERS rater through the process in its entirety. Once a builder has constructed a home that has passed all of the inspections and achieved the ENERGY STAR<sup>®</sup> certification, the builder can submit a rebate application form that is available via the web at [www.kcpl.com](http://www.kcpl.com), through the HERS rater, or by contacting KCP&L. Along with the submission of the rebate application form, the builder must also attach the proof of the ENERGY STAR<sup>®</sup> certification. The ESNH program manager will review the application and supporting documents

for approval. If approved, KCP&L will provide a rebate to the builder. A congratulatory letter and the rebate check are sent to the builder of the qualifying ENERGY STAR® home.

**D. Partners**

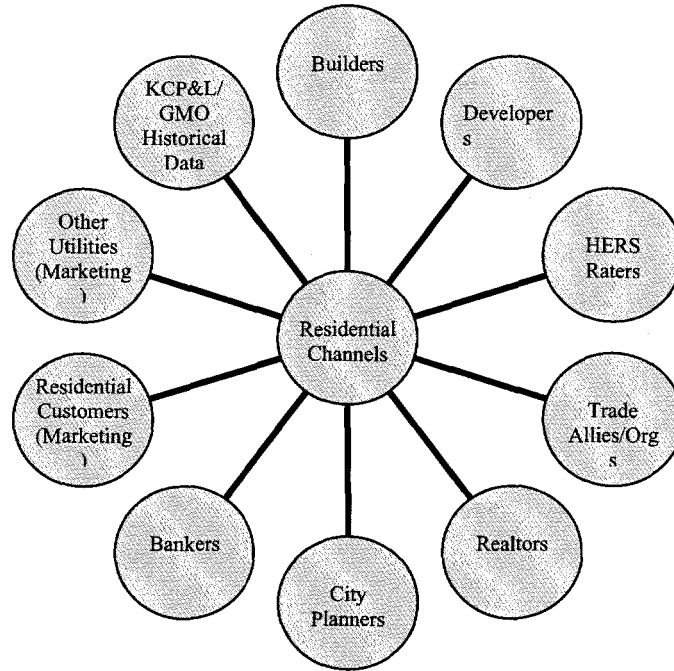
KCP&L's Residential Channels group will engage with channel allies to leverage program support and increase customer awareness. The primary target group will be builders constructing residential structures within in our territory. These include, but are not limited to the ENERGY STAR® builders, Green Build builders, Home Builders Association (HBA) builders, non-HBA builders, single family and multifamily builders. The builder recruitment strategy will consist of using a prioritization method that will enable KCP&L to target a group of builders with higher sales potential. The prioritization method will include evaluating recent permit data as well as internal builder data.

Other partners include developers and HERS raters. HERS raters have a vested interested in the ENERGY STAR® program as it is a form of revenue stream to their business.

Other trade allies/organizations that will be engaged include KCHBA, the four HBA Councils (Missouri North, Missouri South, Kansas North and Kansas South), Midland Empire HBA, Eastern Jackson County HBA, Metropolitan Energy Center (MEC), and Air Conditioning Contractors of America (ACCA).

Residential realtors are another external sales force to incorporate into the sales penetration efforts for this program; one organization is the Kansas City Regional Association of REALTORS. Also, KCP&L will be corresponding with the Bankers who are ENERGY STAR® partners and various City Planners to keep informed with land parcels as they are coded for residential building activity.

**Residential Channels Program Opportunity Diagram:**



**4. Program Budget (Five-Year)**

Since the Program is an established program, KCP&L does not have any start-up costs. The expected budget for the ENERGY STAR® New Homes Program over the five-year period is shown below.

	Start-up	Admin	Marketing	Program Delivery	Builder Incentive	M&V	Total
Year 1	**						**
Year 2	**						**
Year 3	**						**
Year 4	**						**
Year 5	**						**
Total	**						**

**5. Program Beneficiaries**

**A. Expected number of participants by customer class or subclass**

The number of Kansas participants (net-free) expected to participate over the five-year period is shown below.

	<b>Kansas Residential Participants (Net Free)</b>
<b>Year 1</b>	** [REDACTED] **
<b>Year 2</b>	** [REDACTED] **
<b>Year 3</b>	** [REDACTED] **
<b>Year 4</b>	** [REDACTED] **
<b>Year 5</b>	** [REDACTED] **
<b>Total</b>	** [REDACTED] **

**B. Other beneficiaries**

No other beneficiaries have been observed.

## 6. Program Benefit-Cost Analysis

All five benefit-cost tests are shown below. The dollar values below are on a present value basis with the assumption that all future cash flows start at the beginning of each annual period, discounted at the appropriate discount rate.

<b>Energy Star New Homes</b>		
<b>Test Name</b>	<b>Market Based Test Results</b>	<b>Cost Based Test Results</b>
Utility Test	1.74	1.17
TRC Test	1.57	1.06
RIM Test	0.80	0.54
RIM (Net Fuel)	0.95	0.64
Participant Test	2.12	2.12
Societal Test 3% / \$10	1.94	1.86
Societal Test 3% / \$25	2.15	2.07
Societal Test 3% / \$40	2.36	2.28
Societal Test 7% / \$10	1.90	1.82
Societal Test 7% / \$25	2.04	1.96
Societal Test 7% / \$40	2.18	2.10

<b>Assumptions</b>	
Utility Discount Rate (%)	** [REDACTED] **
Participant Discount Rate (%)	10.00%
Electric Losses (%)	** [REDACTED] **
Societal Discount Rate1 (%)	3.00%
Societal Discount Rate2 (%)	7.00%

<b>Avoided Costs</b>	
Avoided T&D (\$ / kW)	** [REDACTED] **
Avoided Market-Based Ancillary Service Charges (OATT)	** [REDACTED] **
Cost-Based Proxy for Avoided Capacity (\$ / kW Annualized)	** [REDACTED] **
CO2 emissions (kG/kWh)	** [REDACTED] **

Cost Based Avoided Electric Production	** [REDACTED] **
Avoided T&D Electric, w OATT	** [REDACTED] **
Avoided Electric Capacity	** [REDACTED] **
<b>Total Cost Based Avoided Costs</b>	** [REDACTED] **

<b>Market Based Avoided Electric Production Costs</b>	** [REDACTED] **
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<b>Program Costs</b>	
Administration Costs	** [REDACTED] **
Implementation / Participation Costs	** [REDACTED] **
Customer Incentives	** [REDACTED] **
Other / Miscellaneous Costs	** [REDACTED] **
<b>Total Program Cost</b>	** [REDACTED] **

<b>Participant Cost</b>	** [REDACTED] **
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<b>Environmental Benefits</b>	<b>@ 3% Discount Rate</b>	<b>@ 7% Discount Rate</b>
\$10 per Ton	** [REDACTED] **	** [REDACTED] **
\$25 per Ton	** [REDACTED] **	** [REDACTED] **
\$40 per Ton	** [REDACTED] **	** [REDACTED] **

<b>Other Environmental Benefits, NOx SOx</b>	** [REDACTED] **
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<b>Lost Revenue</b>	
Gross Lost Revenue, Electric	** [REDACTED] **
Net Fuel Lost Revenue, Electric	** [REDACTED] **

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

Program evaluation, measurement and verification (EM&V) are key elements of demand-side management (DSM) programs. EM&V is used to document and measure the effects of a program and determine whether the program met its goal with respect to being a reliable energy resource. EM&V is also used to help understand why certain effects occurred and identify ways to improve current programs and to select future programs.

The two types of evaluation utilized by KCP&L are:

Process evaluation: Process evaluation assesses program delivery, from design to implementation, in order to identify bottlenecks, efficiencies, what did and did not work, constraints and potential improvements.

Evaluation plans are developed by KCP&L's evaluation contractor(s) and describe all necessary data collection, process evaluation tasks and impact evaluation tasks by program. Evaluation Plans include the following information:

- Study Methodology by Program;
- Data Collection Strategies;
- Data Requests by Program; and
- Detailed Work Plan and Schedule.

Impact evaluation: Impact evaluation determines the impacts (energy and demand savings) and co-benefits (avoided emissions, energy security, transmission/distribution benefits) that directly result from a program. Impact evaluations also support cost-effectiveness analyses aimed at identifying relative program costs and benefits.

The Monitoring and Verification (M&V) process acts as a quality control and quality assurance process for the savings, tracking and accounting for the program.

Monitoring: This is the monitoring of installations when needed to determine or verify savings from a measure that is applied in a unique way, is significant in savings, or is new to the market. Working with the evaluation contractor, guidelines are developed to determine which projects should be monitored.

Verification: During the processing of an application for customer incentives (rebates), KCP&L reviews the equipment specifications by model number to determine if that measure qualifies. This "paper" verification occurs on all applications. Additionally, there are random field visits to assure the correct number and types of measures were installed at the customer's facility.

KCP&L retains one or more M&V contractors to perform process and impact evaluations for its programs in order to avoid conflicts of interest and to insure credibility of the evaluation results. M&V is conducted by the implementation team with advice of the M&V contractor.

At such time that pending Docket No. 10-GIMX-013-GIE is concluded, measurement and verification of the Program will be completed consistent with those requirements established by the Commission.

## **8. Program Specific Tariff Schedule**

Please see tariff attached to the testimony of KCP&L witness Curtis Blanc as Schedule CDB-6 for KCP&L's ENERGY STAR<sup>®</sup> New Homes Program, Schedule 14, also referred to as Schedule NH.



## **Kansas City Power & Light Company**

### **LOW INCOME WEATHERIZATION PROGRAM**

The following information regarding KCP&L's Low Income Weatherization Program is provided in compliance with Appendix A of the Commission's November 14, 2008 Final Order issued in Docket No. 08-GIMX-441-GIE. This Program is set forth in KCP&L's pending tariff Schedule 6, also referred to as Schedule LIW, provided with this filing.

#### **1. Program Description**

The Weatherization Assistance Program run by the U.S. Department of Energy (DOE) enables low income families to permanently reduce their energy bills by making their homes more energy efficient. It is the nation's core method for delivering energy efficiency services to low income households. Weatherization reduces dependency on energy and liberates these funds for spending on more pressing family needs. On average nationwide, weatherization reduces energy bills by 31 percent.

KCP&L's Low Income Weatherization Program (Program) is built around the DOE Weatherization Assistance Program. To deliver its Program, KCP&L partners with Community Action Program (CAP) agencies to provide services under the Weatherization Assistance Program. Professionally trained weatherization crews perform on-site home energy audits using state-of-the-art equipment to identify outside drafts and inspect heating and cooling systems for efficiency. Typical weatherization services include: installing insulation, caulking windows, and conducting repairs to heating and central cooling systems.

A homeowner must meet the following requirements to qualify:

- Household income cannot exceed the income levels established by the DOE, which currently is 200% of Federal Poverty Income Guidelines.
- Owner of the home must have received electric service from KCP&L for a minimum of one year immediately preceding the date of application.
- Household energy consumption must be greater than 3,000 kWh per year.
- Applicant must have made attempts to maintain a payment history, no matter how small.

To qualify, a renter must meet the homeowner requirements plus:

- Must be fully responsible for the payment of electric bills.
- Landlord must agree under contract with the CAP agency to:
  - Pay no less than 50% of the total cost of the weatherization measures; and
  - Not raise the rent for at least two years from the date of completion of installation of the weatherization measures.

**2. Program Goal**

**A. Expected energy and demand savings – time horizon**

The expected annual, cumulative energy and demand savings for the Low Income Weatherization Program over the estimated life of the program is shown below.

	<b>Program Energy Savings (kWh)</b>	<b>Program Demand Savings (kW)</b>
<b>Year 1</b>	** [REDACTED] **	[REDACTED] **
<b>Year 2</b>	** [REDACTED] **	[REDACTED] **
<b>Year 3</b>	** [REDACTED] **	[REDACTED] **
<b>Year 4</b>	** [REDACTED] **	[REDACTED] **
<b>Year 5</b>	** [REDACTED] **	[REDACTED] **
<b>Year 6</b>	** [REDACTED] **	[REDACTED] **
<b>Year 7</b>	** [REDACTED] **	[REDACTED] **
<b>Year 8</b>	** [REDACTED] **	[REDACTED] **
<b>Year 9</b>	** [REDACTED] **	[REDACTED] **
<b>Year 10</b>	** [REDACTED] **	[REDACTED] **
<b>Year 11</b>	** [REDACTED] **	[REDACTED] **
<b>Year 12</b>	** [REDACTED] **	[REDACTED] **
<b>Year 13</b>	** [REDACTED] **	[REDACTED] **
<b>Year 14</b>	** [REDACTED] **	[REDACTED] **
<b>Year 15</b>	** [REDACTED] **	[REDACTED] **

**3. Program Framework/Strategy**

**A. Relationship to other programs**

The Low Income Weatherization Program will be offered to residential customers; therefore, the program has a relationship with KCP&L's other residential demand side management (DSM) programs:

- Home Energy Analyzer; and
- Energy Optimizer.

Each program will offer significant opportunity for cross-promotion of KCP&L's other residential DSM programs.

## **B. Marketing strategy**

KCP&L will seek to implement the following marketing strategy for the Low Income Weatherization Program.

- Promote Program on www.kcpl.com Home Page and within website.
- Allow for Program-specific bill messaging on KCP&L's Kansas residential bills.
- Improve awareness of the Program by providing community education externally, as well as to KCP&L's Call Center.
- Supply collateral materials to local CAP agencies. KCP&L will send updates on the Program to CAP outreach coordinators. As budget allows, supplement marketing dollars for CAP agencies since these agencies tend to have limited capabilities to create marketing collateral.
- As budget allows, consider contacting households that seek help in keeping their electric service connected since this segment would likely income qualify for the Program. Contact would be through a third party via direct marketing or telemarketing.

## **C. Program delivery**

The Low Income Weatherization Program is administered by community-based partners (CAP agencies). The community-based partners are responsible for the application process of participants through the installment of weatherization measures. KCP&L supports the Program through marketing, customer referrals and financial support.

The agency will educate the on how to apply for weatherization, determine if the customer qualifies for the services, and help the customer understand the entire weatherization process. The agency is also responsible for determining the work to be done at the customer's home and hiring the contractors to complete the services.

## **D. Partners**

Specific community-based partners include:

- East Central Kansas Economic Opportunity Corporation;
- Johnson County Housing Services; and
- Southeast Kansas Community Action Program (Inactive Contract).

## **4. Program Budget (Five-Year)**

Since the Program is an established program, KCP&L does not have any start-up costs. The expected budget for the Low Income Weatherization Program over the five-year period is shown below. Currently, average spending per home as defined by the Department of Energy is \$6,500.

	<b>Start-up</b>	<b>Admin</b>	<b>Marketing</b>	<b>Customer Incentive</b>	<b>M&amp;V</b>	<b>Total</b>
<b>Year 1</b>	** [REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]**
<b>Year 2</b>	** [REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]**
<b>Year 3</b>	** [REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]**
<b>Year 4</b>	** [REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]**
<b>Year 5</b>	** [REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]**
<b>Total</b>	** [REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]**

**5. Program Beneficiaries**

**A. Expected number of participants by customer class or subclass**

The number of low income residential Kansas customers (net-free) expected to participate over the five-year period is shown below.

	<b>Kansas Residential Participants (Net Free)</b>
<b>Year 1</b>	** [REDACTED] **
<b>Year 2</b>	** [REDACTED] **
<b>Year 3</b>	** [REDACTED] **
<b>Year 4</b>	** [REDACTED] **
<b>Year 5</b>	** [REDACTED] **
<b>Total</b>	** [REDACTED] **

**B. Other beneficiaries**

No other beneficiaries have been observed.

## 6. Program Cost Benefit Analysis

All five benefit-cost tests are shown below. The dollar values below are on a present value basis with the assumption that all future cash flows start at the beginning of each annual period, discounted at the appropriate discount rate.

<b>Low Income Weatherization Program</b>		
<b>Test Name</b>	<b>Market Based Test Results</b>	<b>Cost Based Test Results</b>
Utility Test	0.15	0.07
TRC Test	0.15	0.07
RIM Test	0.13	0.06
RIM (Net Fuel)	0.13	0.06
Participant Test	N/A	N/A
Societal Test 3% / \$10	0.23	0.11
Societal Test 3% / \$25	0.26	0.14
Societal Test 3% / \$40	0.29	0.17
Societal Test 7% / \$10	0.23	0.11
Societal Test 7% / \$25	0.25	0.13
Societal Test 7% / \$40	0.27	0.16

<b>Assumptions</b>	
Utility Discount Rate (%)	** [REDACTED] **
Participant Discount Rate (%)	10.00%
Electric Losses (%)	** [REDACTED] **
Societal Discount Rate1 (%)	3.00%
Societal Discount Rate2 (%)	7.00%

<b>Avoided Costs</b>	
Avoided T&D (\$ / kW)	** [REDACTED] **
Avoided Market-Based Ancillary Service Charges (OATT)	** [REDACTED] **
Cost-Based Proxy for Avoided Capacity (\$ / kW Annualized)	** [REDACTED] **
CO2 emissions (kG/kWh)	** [REDACTED] **

Cost Based Avoided Electric Production	** [REDACTED] **
Avoided T&D Electric, w OATT	** [REDACTED] **
Avoided Electric Capacity	** [REDACTED] **
<b>Total Cost Based Avoided Costs</b>	** [REDACTED] **

<b>Market Based Avoided Electric Production Costs</b>	** [REDACTED] **
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<b>Program Costs</b>	
Administration Costs	** [REDACTED] **
Implementation / Participation Costs	** [REDACTED] **
Customer Incentives	** [REDACTED] **
Other / Miscellaneous Costs	** [REDACTED] **
<b>Total Program Cost</b>	** [REDACTED] **

<b>Participant Cost</b>	** [REDACTED] **
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<b>Environmental Benefits</b>	<b>@ 3% Discount Rate</b>	<b>@ 7% Discount Rate</b>
\$10 per Ton	** [REDACTED] **	** [REDACTED] **
\$25 per Ton	** [REDACTED] **	** [REDACTED] **
\$40 per Ton	** [REDACTED] **	** [REDACTED] **

<b>Other Environmental Benefits, NOx SOx</b>	** [REDACTED] **
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<b>Lost Revenue</b>	
Gross Lost Revenue, Electric	** [REDACTED] **
Net Fuel Lost Revenue, Electric	** [REDACTED] **

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

Program evaluation, measurement and verification (EM&V) are key elements of demand side management (DSM) programs. EM&V is used to document and measure the effects of a program and determine whether the program met its goal with respect to being a reliable energy resource. EM&V is also used to help understand why certain effects occurred and identify ways to improve current programs and to select future programs.

The two types of evaluation utilized by KCP&L are:

Process evaluation: Process evaluation assesses program delivery, from design to implementation, in order to identify bottlenecks, efficiencies, what did and did not work, constraints and potential improvements.

Evaluation plans are developed by KCP&L's evaluation contractor(s) and describe all necessary data collection, process evaluation tasks and impact evaluation tasks

by program. Evaluation Plans include the following information:

- Study Methodology by Program;
- Data Collection Strategies;
- Data Requests by Program; and
- Detailed Work Plan and Schedule.

Impact evaluation: Impact evaluation determines the impacts (energy and demand savings) and co-benefits (avoided emissions, energy security, transmission/distribution benefits) that directly result from a program. Impact evaluations also support cost-effectiveness analyses aimed at identifying relative program costs and benefits.

The Monitoring and Verification (M&V) process acts as a quality control and quality assurance process for the savings, tracking and accounting for the program.

Monitoring: This is the monitoring of installations when needed to determine or verify savings from a measure that is applied in a unique way, is significant in savings, or is new to the market. Working with the evaluation contractor, guidelines are developed to determine which projects should be monitored.

Verification: During the processing of an application for customer incentives (rebates), KCP&L reviews the equipment specifications by model number to determine if that measure qualifies. This “paper” verification occurs on all applications. Additionally, there are random field visits to assure the correct number and types of measures were installed at the customer’s facility.

KCP&L retains one or more M&V contractors to perform process and impact evaluations for its programs in order to avoid conflicts of interest and to insure credibility of the evaluation results. M&V is conducted by the implementation team with advice of the M&V contractor.

At such time that pending Docket No. 10-GIMX-013-GIE is concluded, measurement and verification of the Program will be completed consistent with those requirements established by the Commission.

## **8. Program Specific Tariff Schedule**

Please see tariff attached to the testimony of KCP&L witness Curtis Blanc as Schedule CDB-3 for KCP&L’s Low Income Weatherization Program, Schedule 6, also referred to as Schedule LIW.



## Kansas City Power & Light Company

### MPOWER PROGRAM

The following information regarding KCP&L's MPower Program is provided in compliance with Appendix A of the Commission's November 14, 2008 Final Order issued in Docket No. 08-GIMX-441-GIE. This Program is set forth in KCP&L's pending tariff Schedule 76, also referred to as Schedule MP, provided with this filing.

#### 1. Program Description

Mpower is a commercial and industrial customer peak electric load reduction program. KCP&L collaborates with customers to have them curtail (or reduce) their energy use during times of peak electric demand during the months of June through September. This can be done by reducing lighting and HVAC load, shutting down equipment, or switching facility load to a generator.

Mpower provides two forms of payment to customers. Customers receive a monthly "participation payment" for signing up for the program and being "on call" to reduce power consumption at KCP&L's request. Customers also receive an additional "event payment" for successfully reducing demand each time they are called upon to do so.

#### 2. Program Goal

As of December of 2009, the Mpower program had \*\* [REDACTED] \*\* kW of curtailable load under contract in Kansas. Within five years, KCP&L expects to obtain the following capacity through the Mpower program:

	Net Free Curtailable Load (kW)	Net Free Energy Saved (kWh)
Year 1	** [REDACTED] **	[REDACTED] **
Year 2	** [REDACTED] **	[REDACTED] **
Year 3	** [REDACTED] **	[REDACTED] **
Year 4	** [REDACTED] **	[REDACTED] **
Year 5	** [REDACTED] **	[REDACTED] **

The table above shows forecasted gross savings at the generator bus, and includes a \*\* [REDACTED] \*\* percent transmission and distribution line loss.

### **3. Program Framework/Strategy**

#### **A. Relationship to other programs**

The MPower Program will be offered to commercial customers; therefore, the program has a strong relationship with KCP&L's other commercial demand side management (DSM) programs.

MPower is a demand response program targeted at commercial customers with peak loads greater than 100 kW. It is designed to reduce system load during times of peak demand. It is one of two programs in KCP&L's demand response portfolio with the other being the Energy Optimizer air conditioner cycling program which is targeted to residential and small commercial customers with peak loads under 200 kW.

As a portfolio, KCP&L's energy efficiency and demand response programs act as a sort of "virtual power plant" with energy efficiency programs reducing system demand most hours of the year and displacing baseload-type power plants. Demand response programs serve to reduce peak system load during peak hours, and serve to defer the need to build additional peaking power plants.

#### **B. Marketing strategy**

MPower is marketed primarily through the direct sales efforts of KCP&L's Energy Consultants, who manage the large commercial accounts, and Commercial Consultants, who manage mid-size commercial accounts. All KCP&L account managers have specific MW goals related to the MPower program.

Additionally, KCP&L has held various customer seminars each year to increase awareness and educate potential participants. Seminar topics range from "*Introduction to Demand Response*" to "*Effective Curtailment Strategies*". Other seminars are focused on getting customer feedback as to how to improve the program, and KCP&L typically holds one customer appreciation event per year, designed to recognize customers for their participation and encourage other customers to sign up for the program.

Other methods used include targeted direct mail and trade publication advertising. These efforts are complemented by bill inserts and KCP&L customer newsletter testimonials.

Marketing messages vary, with most being focused on acquiring new participants, but with a significant effort being directed toward getting existing customers to renew contracts prior to expiration.

**C. Program Delivery**

The program is sold by KCP&L account managers (Energy and Commercial Consultants) and managed by an internal KCP&L product manager. Back-office systems and support are handled by a third party vendor, currently Ziphany.

The product manager is responsible for educating and training account managers, analyzing customer loads and curtailment capabilities, processing contracts, setting customers up in the MPower database, conducting market analyses, forecasting, developing marketing strategies and materials, processing payments and penalties and conducting annual baseline reviews for each account. The product manager also executes curtailments at the direction of KCP&L's power supply group.

Ziphany, the back-office support vendor, manages the customer database, produces reports, provides event notification services, analyzes event meter data and supplies the product manager with monthly customer credit and penalty tables, which the product manager then reviews and submits to KCP&L's billing and accounting departments for the application of monthly credits and penalties to customer bills. Ziphany also offers KCP&L customers real-time feeds of meter data via the Internet on an as-requested, subscription basis.

**D. Partners**

KCP&L partners with Ziphany for back-office support and meter data management services. It also relies on various meter manufacturers for support in providing necessary data to customers and the company.

**4. Program Budget (Five-Year)**

Since the MPower Program is an established program, KCP&L does not have any start-up costs. The expected budget for the MPower Program over the five-year period is shown below.

	Start-up	Admin	Marketing	Customer Incentive	M&V	Total
Year 1	**					**
Year 2	**					**
Year 3	**					**
Year 4	**					**
Year 5	**					**
Total	**					**

**5. Program Beneficiaries**

**A. Expected number of participants by customer class or subclass**

Historically, about \*\*█\*\* percent of MPower participants are on a large general service rate and \*\*█\*\* percent are on a medium general service rate. Customers on a small commercial rate are generally unable to meet the program's minimum curtailable load requirement. These customers do, however, have the opportunity to participate in a demand response program through the Energy Optimizer Air Conditioning Cycling program. Customer counts (gross) by class in Kansas are expected to be as follows over the next five years:

	Year 1	Year 2	Year 3	Year 4	Year 5
<b>Small</b>	**█**	█	█	█	**█**
<b>Medium</b>	**█**	█	█	█	**█**
<b>Large</b>	**█**	█	█	█	**█**
<b>Total</b>	**█**	█	█	█	**█**

**B. Other beneficiaries**

The direct financial beneficiaries of the MPower program are the customers who participate in the program. However, the entire customer base, every customer class, benefits financially in the form of lower rates. The MPower program is a cost-effective alternative to building a peaking power plant. Every MW of capacity obtained through the program is a MW of steel-in-the-ground peaking capacity that will not have to be built.

**6. Program Benefit-Cost Analysis**

All five benefit-cost tests are shown below. The dollar values below are on a present value basis with the assumption that all future cash flows start at the beginning of each annual period, discounted at the appropriate rate.

<b>Mpower Program</b>		
<b>Test Name</b>	<b>Market Based Test Results</b>	<b>Cost Based Test Results</b>
Utility Test	2.21	2.21
TRC Test	2.21	2.21
RIM Test	2.20	2.20
RIM (Net Fuel)	2.21	2.21
Participant Test	N/A	N/A
Societal Test 3% / \$10	2.21	2.21
Societal Test 3% / \$25	2.21	2.21
Societal Test 3% / \$40	2.21	2.21
Societal Test 7% / \$10	2.21	2.21
Societal Test 7% / \$25	2.21	2.21
Societal Test 7% / \$40	2.21	2.21

<b>Assumptions</b>	
Utility Discount Rate (%)	** [REDACTED] **
Participant Discount Rate (%)	10.00%
Electric Losses (%)	** [REDACTED] **
Societal Discount Rate1 (%)	3.00%
Societal Discount Rate2 (%)	7.00%

<b>Avoided Costs</b>	
Avoided T&D (\$ / kW)	** [REDACTED] **
Avoided Market-Based Ancillary Service Charges (OATT)	** [REDACTED] **
Cost-Based Proxy for Avoided Capacity (\$ / kW Annualized)	** [REDACTED] **
CO2 emissions (kG/kWh)	** [REDACTED] **

Cost Based Avoided Electric Production	** [REDACTED] **
Avoided T&D Electric, w OATT	** [REDACTED] **
Avoided Electric Capacity	** [REDACTED] **
<b>Total Cost Based Avoided Costs</b>	** [REDACTED] **

<b>Market Based Avoided Electric Production Costs</b>	** [REDACTED] **
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<b>Program Costs</b>	
Administration Costs	** [REDACTED] **
Implementation / Participation Costs	** [REDACTED] **
Customer Incentives	** [REDACTED] **
Other / Miscellaneous Costs	** [REDACTED] **
<b>Total Program Cost</b>	** [REDACTED] **

<b>Participant Cost</b>	** [REDACTED] **
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<b>Environmental Benefits</b>	<b>@ 3% Discount Rate</b>	<b>@ 7% Discount Rate</b>
\$10 per Ton	** [REDACTED] **	** [REDACTED] **
\$25 per Ton	** [REDACTED] **	** [REDACTED] **
\$40 per Ton	** [REDACTED] **	** [REDACTED] **

<b>Other Environmental Benefits, NOx SOx</b>	** [REDACTED] **
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<b>Lost Revenue</b>	
Gross Lost Revenue, Electric	** [REDACTED] **
Net Fuel Lost Revenue, Electric	** [REDACTED] **

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

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At such time that pending Docket No. 10-GIMX-013-GIE is concluded, measurement and verification of the Program will be completed consistent with those requirements established by the Commission.

**8. Program Specific Tariff Schedule**

Please see tariff attached to the testimony of KCP&L witness Curtis Blanc as Schedule CDB-14 for KCP&L's MPower Rider, Schedule 76, also referred to as Schedule MP.



**SCHEDULE ADD-14 through ADD-21**

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