# Schedule KHW -2

# KCP&L MO MEEIA Filing

# May 2014

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# Portfolio Budget and Savings Targets by Program

	2014	2015	No. of Particular
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kWh Savings (at meter)		10 mm 1 m
KCP&L-MO	2014	2015
Residential		
Air Conditioning Upgrade Rebate	2,165,320	1,992,012
Home Appliance Recycling Rebate	204,943	743,606
Home Energy Analyzer	-	-
Home Energy Report Program — Pilot	3,922,043	13,397,205
Income-Eligible Home Energy Report Program – Pilot	723,966	2,478,148
Home Lighting Rebate	6,632,643	10,883,754
Income-Eligible Weatherization	178,465	580,631
Programmable Thermostat	-	**
Sub-Total	13,827,378	30,075,356
Commercial & Industrial		
Building Operator Certification	759,251	1,518,500
Business Energy Analyzer	-	
Business Energy Efficiency Rebates - Custom	9,481,194	20,704,037
Business Energy Efficiency Rebates - Standard	9,804,201	16,419,078
Sub-Total	20,044,646	38,641,615
Total	33,872,024	68,716,971
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2014	2015	
		$\top$
1,260	1,153	+
33	119	1
_	-	+
0	4,124	
0	769	T
704	1,155	T
65	173	1
17,590	2,371	-
19,653	9,864	1
		+
87	173	1
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2,590	5,411	十
2,012	3,304	-
4,689	8,888	1
24,342	18,752	<u> </u>
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# Air Conditioning Upgrade Rebate Program Description

The following information regarding KCP&L-MO (Company) proposed Air Conditioning Upgrade Rebate Program (Program) is provided in compliance with 4 CSR 240-3.164(2)(C).

# 1. Program Description

The Program is a residential central air-conditioning rebate program designed to help reduce excess energy usage during the peak summer months and cut carbon dioxide emissions through the maintenance and early retirement of inefficient central air conditioning equipment.

Prospective customer participants will be identified in three ways:

- Customer electric usage data will be evaluated to identify customers with a high probability of operating less efficient central air conditioning equipment.
- Participating HVAC (heating, ventilating, and air conditioning) Contractors may identify
  existing customers within the Company service territory.
- Customers interested in the Program, but not identified through the above means may contact a participating HVAC Contractor or the Company directly. A listing of HVAC Contractors will be posted on the Company website.

The following general process will be followed to serve customers in the Program:

- The Program Administrator will assign participating customers to an HVAC Contractor for service.
- The HVAC Contractor will evaluate the Customer's cooling system using CheckME!<sup>™</sup>.
- Customers with working equipment that can be re-commissioned to operate above an
  Energy Efficiency Ratio (EER) rating of 8.0 will be offered an opportunity to return the
  equipment as close as possible to manufacturer specifications at no cost to the
  customer. Re-commissioning efforts will be limited to refrigerant charge, non-ductwork
  air flow system adjustments, and basic filters.
- All participating customers will receive a cost estimate for replacement of their system with a higher efficiency system. The customer will be responsible for the cost of the replacement equipment. (Estimates for higher efficiency systems will include the applicable incentives.)
- The customer may choose not to re-commission or replace their equipment.
- Six compact fluorescent lights (CFL) will be given to all customers completing the initial CheckME!<sup>TM</sup> process regardless of their equipment choices.
- Where work is performed, a second CheckME!<sup>TM</sup> evaluation will be completed to verify the re-commissioning modifications or ensure the quality installation of new equipment.
- Incentives are provided to customers through the HVAC Contractors to help offset equipment costs and provide for quality installation practices.

## 2. Air Conditioning Upgrade Rebate Measures List and Incentive Levels

Incentive amounts of \$650 per unit for installation of replacement Seasonal Energy Efficiency Ratio (SEER) 14.0 or SEER 15.0 rated systems and \$850 per unit for installation of SEER 16.0 or above rated systems will be paid to the Program HVAC Contractor. The HVAC Contractor will

pass the replacement equipment incentive to the customer. If recommissioning is feasible, the cost will be paid by the Company to the HVAC Contractor.

KCP&L-MO reserves the option to offer additional measures and alter incentive levels that are approved and pass the Total Resource Cost (TRC) test listed in Schedule KHW-4. For customer communication, eligible incentives directly paid to customer and measures will be found at www.kcpl.com.

# 3. Program Goals

The projected annual incremental savings targets during the plan period (at the meter) are listed below.

Year	Program Energy Savings (kWh)	Program Demand Savings (kW)
2014	2,156,320	1,260
2015	1,992,012	1,153

# 4. Program Framework/Strategy

## Relationship to other programs

The Program is designed for residential customers; therefore, the Program has a strong relationship through promotion with the Company's other residential demand-side management (DSM) programs, such as the Home Energy Improvements Program, Income-Eligible Weatherization Program, Programmable Thermostat, Home Lighting Program, Home Energy Report Pilot, and Home Energy Analyzer.

# Marketing strategy

The target market for the Program is KCP&L-MO residential customers who have improperly operating, inefficient, A/C systems.

The proposed marketing strategy includes:

- Building a strong, consistent message informing customers that the Air Conditioning Upgrade Rebate early replacements and retro-commissions will result in annual cost savings with energy efficient appliances.
- KCP&L-MO's marketing strategy will be based on the integration of marketing, customer call center and program management functions.

## Key Messages:

- Maintain the operating efficiency of your central A/C systems and offset the cost of upgrading to a new high efficiency system by utilizing the Program at: www.kcpl.com.
- Schedule an Air Conditioning Upgrade Rebate assessment with a CheckME!TM certified technician.
- Qualify for an instant rebate up to \$850 towards a new energy efficient A/C or heat pump.

## **Program delivery**

The Program will be implemented by KCP&L-MO with necessary resources to administer the Program.

KCP&L-MO will utilize an internal program manager to conduct its own administration of the Program. KCP&L-MO's Program Manager will maintain oversight of the Program. This is an existing program currently in place that will be implemented as the new MEEIA program on the specified effective date.

### **Partners**

Partners include CheckME!<sup>™</sup> HVAC vendor affiliates and a third party vendor to conduct project analysis, post QA/QC evaluation.

## 5. Program Beneficiaries

# Expected number of participants by customer class or subclass

The number of expected program end use measures expected to be under taken by KCP&L-MO residential customers over the two-year period is shown below. The expected market potential and penetration rate used to estimate participants was derived from Navigant's Potential Study as seen in Schedule KHW-5.

	KCP&L-MO
	Annual End Use Measures (Projected)
Year 1	3,980
Year 2	3,890
Total	7,870

# 6. Program Benefit-Cost Analysis

All five benefit-cost tests are shown below for the Program. 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.

Test Name	Market Based Test Results	Cost Based Test Results
Utility Test	1.57	1.70
TRC Test	1.12	1.21
RIM Test	0.61	0.66
RIM (Net Fuel)	0.69	0.74
Societal Test	1.27	1.38
Participant Test	2.07	2.07

Assumptions	
Utility Discount Rate (%)	6.961%
Participant Discount Rate (%)	10.00%
Electric Losses (%)	6.56%
Societal Discount Rate1 (%)	3.00%

Avoided Costs			
Avoided T&D (\$ / kW)	**	*	·*
Cost-Based Proxy for Avoided	**	*	*
Capacity (\$ / kW Annualized)			

<b>Emissions Costs</b>	\$/kWh
SOx	\$0.00001
NOx	\$0.000032
CO2	\$0.002670
Total	\$0.0027

Cost Based Avoided Electric Production	**	**
Avoided Electric Capacity	**	**
Avoided T&D Electric	**	**
Total Cost Based Avoided Costs	**	**

Market Based Avoided	**	**
Electric Production Costs		

Program Costs		
Administration Costs	**	**
Implementation / Participation Costs	**	**
Other / Miscellaneous Costs	**	**
Incentives	**	**
Total	**	**

Participant Cost (Gross)	**	**
Other Environmental Benefits,	**	**
	1	

Lost Revenue		
Gross Lost Revenue, Electric	**	**
Net Fuel Lost Revenue, Electric	**	**

# 7. Program Evaluation, Measurement and Verification Plan

Program evaluation, measurement and verification (EM&V) are key elements of 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 which will be utilized by KCP&L-MO 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 will be developed by the selected evaluation contractor(s) and will 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 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-MO 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.

Market Transformation: This is the strategic process of intervening in a market to create lasting change in market behavior by removing identified barriers or using opportunities to accelerate the adoption of all cost-effective energy efficiency as a matter of standard practice.

KCP&L-MO will retain one or more EM&V contractors to perform process and impact evaluations for its programs and assess progress of market transformation in order to avoid conflicts of interest and to insure credibility of the evaluation results, as well as comply with Commission requirements. KCP&L-MO expects to conduct EM&V of the Program at the end of the plan period.

# 8. Program Budget (Two-Year)

The expected budget for the Program over the two-year period is shown below.

	Admi	n Implemen	tation Incentiv	ves Other Includ	ing EM&V Total
Year 1	**				**
Year 2	**				**
Total	i ** 1888				

## 9. Strategies to Minimize Free Riders and Maximize Spillover

The development of this Program incorporated available information from market studies, consultant studies and the California Database for Energy Efficient Resources (DEER) on program impacts of free ridership and spillover in the initial program design. At the end of the plan period, KCP&L-MO will perform an EM&V study and these results will be incorporated into the Program design. This process provides the input necessary to minimize free-ridership and maximize spillover.

# **Home Appliance Recycling Rebate Program Description**

The following information regarding KCP&L-MO (Company) proposed Home Appliance Recycling Rebate Program (Program) is provided in compliance with 4 CSR 240-3.164(2) (C).

# 1. Program Description

The primary objective of the Program is to incent residential customers to remove inefficient, operating, secondary appliances. The secondary purpose is to raise awareness of the energy benefits of ENERGY STAR® appliances.

Older vintage refrigerators and freezers can be some of the least efficient electrical appliances in the home. Often these old units are used when they are not functioning properly and as a result use electricity very inefficiently. To encourage customers to dispose of their old appliances and purchase efficient ENERGY STAR® models, KCP&L-MO proposes a home appliance recycling rebate program. The Program will target residential customers who are currently operating secondary refrigerators, freezer as well as dehumidifiers.

## 2. Home Appliance Recycling Measure List

With the Program, KCP&L-MO will target specific measures to achieve energy/demand reduction. These include, but are not limited to, the following measures:

Inefficient refrigerators or freezers:

Measure	Unit	Year 1 Incentive
Freezer – Standard Freezer - Recycle	per unit	\$75.00
Refrigerator- Standard Refrigerator- Recycle	per unit	\$75.00

KCP&L-MO reserves the option to offer additional measures and alter incentive levels that are approved and pass the Total Resource Cost (TRC) test listed in Schedule KHW-4. For customer communication, eligible incentives directly paid to customer and measures will be found at www.kcpl.com.

# 3. Program Goal

## Expected energy and demand savings - time horizon

Program targets, market potential and penetration rates were defined using the potential study as a source for savings targets.

The projected annual incremental savings targets during the plan period (at the meter) applying a net to gross ratio of 0.52 are listed below.

	Year	Program Energy Savings	Program Demand Savings
_		(kWh)	(kW)
	2014	204,943	33
-	2015	743,606	119

# 4. Program Framework/Strategy

# Relationship to other programs

The Program is designed for residential customers; therefore, the Program has a strong relationship through promotion with the Company's other residential demand-side management (DSM) programs such as the Home Appliance Rebate program, Home Energy Improvements program, Air Conditioning Upgrade Rebate program, Income-Eligible Weatherization, Programmable Thermostat, Home Lighting program, Home Energy Report Pilot, and Home Energy Analyzer.

## Marketing Strategy

The target market for the Program is KCP&L-MO residential customers who have improperly operating, inefficient, or secondary appliances.

The proposed marketing strategy includes:

- Building a strong, consistent message informing customers that the Program will result in annual cost savings with energy efficient appliances.
- Strengthen KCP&L-MO's relationship with ENERGY STAR® appliance retailers, manufacturers and distributors.
  - KCP&L-MO's marketing strategy will be based on the integration of marketing, customer call center and program management functions.

The Program includes customer educational and promotional pieces designed to assist residential customers with the information necessary to improve the energy efficiency of their entire home. The Program also includes customer and trade ally education to assist with understanding the technologies and applications that are being promoted, the incentives that are offered, and how the Program functions.

# **Customer Marketing Tactics**

The following customer marketing activities are anticipated:

- Promote program on www.kcpi.com, within site and in account payment portal (AccountLink).
- Provide promotional information embedded in the Energy Analyzer.
- · Direct mail campaigns.
- Conduct telemarketing in conjunction with other campaigns.
- · Bill inserts and Html email campaigns.
- Print advertising in local newspapers and magazines.
- Participation in Earth Day, Home Shows, and large customer employee fairs by providing brochures featuring the benefits and process to participate.

## **Retailer Marketing Tactics**

KCP&L-MO will increase its efforts with retailers with the following:

- Schedule retailer meetings.
- Provide updates on KCP&L-MO energy efficiency applications, program updates, budgets/goals, etc.
- Provide information and documentation on KCP&L-MO's programs, procedures, policies and contacts.
- Provide reporting and marketing tools.
- Provide marketing support to drive product participation.

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

# **Externally Published Communications:**

- The Kansas City Star.
- Greenability magazine or other sustainability publications.

# **Internally Published Communications:**

- The Wire. (Commercial version). This is a quarterly newsletter from KCP&L-MO that is included with a customer's bill.
- · Bill messaging.
- On line promotion with KCP&L-MO's other e-Services products.

# Other marketing activities may include:

- Online advertising will be used with Google AdWords.
- 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.
- Sponsor spots on public radio.

## **Program delivery**

The Program will be implemented by KCP&L-MO 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-MO directs.

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

## **Partners**

Partners include KCP&L-MO internal staff, various retailers, local Chamber of Commerce organizations, and others as needed to promote and encourage customer participation in the Program.

# 5. Program Beneficiaries

# Expected number of participants by customer class or subclass

The number of expected Program end use measures (net-free) expected to be undertaken by KCP&L-MO residential customers over the two-year period is shown below.

	KCP&L-MO Annual End Use Program Measures (Projected)
2014	695
2015	2,522
Total	3,217

# KCP&L-MO annual end use Program measures (net-free)

The Net to Gross Factor for all measures is 0.52.

## 6. Program Benefit-Cost Analysis

All five benefit-cost tests are shown below for the Program. 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.

Test Name	Market Based Test Results	Cost Based Test Results
Utility Test	0.63	Based
TRC Test	1.05	0.68
RIM Test	0.30	1.13
RIM (Net Fuel)	0.34	0.32
Societal Test	1.22	0.37
Participant Test	N/A	N/A

Assumptions	
Utility Discount Rate (%)	6.961%
Participant Discount Rate (%)	10.00%
Electric Losses (%)	6.56%
Societal Discount Rate1 (%)	3.00%

Avoided Costs		
Avoided T&D (\$ / kW)	**	**
Cost-Based Proxy for Avoided	**	**
Capacity (\$ / kW Annualized)		

Emissions Costs	\$ / kWh
SOx	\$0.000001
NOx	\$0.000032
CO2	\$0.002670
Total	\$0.0027

Cost Based Avoided Electric Production	**	**
Avoided Electric Capacity	**	**
Avoided T&D Electric	**	**
Total Cost Based Avoided Costs	**	**

Market Based Avoided	**	**
Electric Production Costs		

Program Costs		
Administration Costs	**	**
Implementation / Participation Costs	**	**
Other / Miscellaneous Costs	**	**
Incentives	**	**
Total	**	**

-	Participant Cost (Gross)	-0-

Other Environmental Benefits, NOx SOx	**	**
Lost Revenue		
Gross Lost Revenue, Electric	**	**
Net Fuel Lost Revenue Flectric	**	**

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## 7. Program Evaluation, Measurement and Verification Plan

KCP&L-MO will conduct program evaluation, measurement and verification (EM&V) pursuant to 4 CSR 240-3.163(7) and 4 CSR 240-20.093(7).

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-MO 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-MO'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 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-MO will retain one or more EM&V contractors to perform process and impact evaluations for its programs and assess progress of market transformation in order to avoid conflicts of interest and to insure credibility of the evaluation results, as well as comply with Commission requirements. KCP&L-MO expects to conduct EM&V of the Program at the end of the plan period.

# 8. Program Budget (Two-Year)

The expected budget for the Program over the two-year period is shown below:

Admin In	Including //&V Total
Year 1 ** Second	**
Year 2 **	**
Total **	**

# 9. Strategies to Minimize Free Riders and Maximize Spillover

The development of this Program incorporated available information from market studies, consultant studies and the California Database for Energy Efficient Resources (DEER) on program impacts of free ridership and spillover in the initial program design. At the end of the plan period, KCP&L-MO will perform an EM&V study and these results will be incorporated into the Program design. This process provides the input necessary to minimize free-ridership and maximize spillover.

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# **Home Energy Analyzer Program Description**

The following information regarding KCP&L-MO's (Company) proposed Home Energy Analyzer Program (Program) is provided in compliance with 4 CSR 240-3.164(2)(C).

# 1. Program Description

This Program allows all residential customers with access to the Internet to retrieve their billing information, make comparisons of electric usage on a monthly or yearly basis, analyze electric usage on an end use basis, and research energy savings by end use through a searchable resource center. Customers can also compare their bills to analyze changes from one month to another. Residential customers can also compare their home to a similar home in terms of average energy usage using the Energy Guide label concept.

# 2. Measures List and Incentive Levels

N/A

## 3. Program Goals

N/A (educational program)

## 4. Program Framework/Strategy

## Relationship to other programs

The Program is designed for residential customers; therefore, the Program has a strong relationship through promotion with the Company's other residential programs, such as the Home Energy Improvements program, Home Lighting Rebate program, Air Conditioning Upgrade Rebate program, Income-Eligible Weatherization program, Home Energy Report Pilot, and Programmable Thermostat program.

## Marketing strategy

The target market for the Program is KCP&L-MO residential customers with homes within the service territory.

The proposed marketing strategy includes:

- Building a strong, consistent message informing customers that the Program provides customers
  with the analysis tools to compare their bills, usage and utilize the resource center to identify
  energy solutions for their home.
- KCP&L-MO's marketing strategy will be based on the integration of marketing, bill inserts, direct mail, and energy resource fairs.

## Key Messages:

- Completing a home profile is the first step towards managing your energy usage and costs. Find out more on your homes energy usage at www.kcpl.com.
- Take a few minutes to save energy and money in your home.

# Program delivery

The Program will be implemented by KCP&L-MO with necessary resources to administer the Program. KCP&L-MO will utilize an internal program manager to conduct its own administration of the Program. KCP&L-MO's program manager will maintain oversight of the Program.

## 5. Program Beneficiaries

## Expected number of participants by customer class or subclass

The number of expected program end use measures (net-free) expected to be under taken by KCP&L- MO residential customers over the two-year period is shown below:

	KCP&L-MO Annual Participants (Projected)
Year 1	1,600
Year 2	1,700

## 6. Program Benefit Cost Analysis

N/A

# 7. Program Evaluation, Measurement and Verification Plan

KCP&L-MO will conduct program evaluation, measurement and verification (EM&V) pursuant to 4 CSR 240-3.163(7) and 4 CSR 240-20.093(7). 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-MO 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-MO'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 cobenefits (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 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-MO 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-MO will retain one or more EM&V contractors to perform process and impact evaluations for its programs and assess progress of market transformation in order to avoid conflicts of interest and to insure credibility of the evaluation results, as well as comply with Commission requirements. KCP&L-MO expects to conduct EM&V of the Program at the end of the plan period.

# 8. Program Budget (Two-Year)

The expected budget for the Program over the two-year period is shown below.

A	dmin Incentives	Implementation	Other Including M&V	Total
Year 1 ** Year 2 ** Total **				**

## 9. Strategies to Minimize Free Riders and Maximize Spillover

The development of this Program incorporated available information from market studies, consultant studies and the California Database for Energy Efficient Resources (DEER) on program impacts of free ridership and spillover in the initial program design. At the end of the plan period, KCP&L-MO will perform an EM&V study and these results will be incorporated into the Program design. This process provides the input necessary to minimize free-ridership and maximize spillover.

# Home Energy Report Program – Pilot Program Description

The following information regarding KCP&L-MO's (Company) proposed Home Energy Report Program – Pilot (Program) is provided in compliance with 4 CSR 240-3.164(2)(C).

# 1. Program Description

The Program provides residential customers with an Energy Report that provides a comparison of the household energy usage information with similar type customers or "neighbors." The intention of the Energy Report is to provide information that will influence customers' behavior in such a way that they lower their energy usage.

This is a behavioral modification program. This program element will operate as an opt-out only program, which means KCP&L-MO will select customers for participation in the Program. Program participants will be mailed an energy usage report on how energy is used by their households on a bi-monthly basis. The customer's home energy usage is compared to the average usage of households that are geographically located in close approximation of one another and have similar characteristics such as dwelling size and heating type.

The report displays a monthly neighbor comparison, a 12-month neighbor comparison, a personal comparison of this year's usage versus last year and specific energy tips that are based on the characteristics and usage of the household.

# 2. Home Energy Reports Measures List and Incentive Levels N/A

# 3. Program Goal

Proposed energy and demand savings targets – time horizon

The projected annual incremental savings targets during the plan period (at the meter) are listed below.

Year	Program Energy Savings (kWh)	Program Demand Savings (kW)
2014	3,922,043	0
2015	13,397,205	4,124

The expected savings for this Program are based on 1.0 ratio of Net to Gross.

# 4. Program Framework/Strategy

# Relationship to other programs

The Program is designed for residential customers; therefore, the Program has a strong relationship through promotion with the Company's other residential demand-side management (DSM) programs, such as the Air Conditioning Upgrade program, Home Appliance Rebate program, Home Energy Improvements program, Home Appliance Recycling program, Home Lighting Rebate program, Income-Eligible Weatherization program, and Programmable Thermostat program.

## Marketing strategy

The target market for the Program is KCP&L-MO residential single-family and multifamily customers. Behavioral marketing is defined as using human biases that are important for making decisions and incorporating those biases into marketing campaigns to make them more effective. The Program will use behavioral marketing by focusing on social norms.

The overall marketing strategy will largely operate as a continued education and awareness of energy efficiency because this Program is conducted on an opt-out basis. Marketing will primarily occur through customized messages on participants' reports. Program participants will also be reached via e-channels and through additional targeted mailings based on energy reduction needs. In addition, the Company intends to partner with retailers to offer coded and measurable discounts and coupons that offer a call to action on energy reduction.

## Key Messages:

- Reduce your energy usage check out more energy saving opportunities at www.kcpl.com.
- Become a more informed user of energy and see how easily you can save money on your monthly expenses.
- Being more energy efficient is as simple as slightly changing an existing habit or pattern.

## Program delivery

The Home Energy Reports will be implemented by KCP&L-MO with necessary resources to administer the Program including a third party implementer who will be responsible for the actual report creation.

The Program Administrator will utilize KCP&L-MO's customer database to create customized energy usage reports. KCP&L-MO will utilize an internal program manager to conduct its own administration of the Program. KCP&L-MO's Program Manager will maintain oversight of the Program. As the Program expands, additional call center personnel will be trained to field customer questions and manage program opt-out requests. The implementation of this Program is dependent on large data transfer mechanism set-up and is expected to be available in June 2014.

# 5. Program Beneficiaries

# Expected number of participants by customer class or subclass

The number of expected Program end use measures (net-free) expected to be undertaken by KCP&L-MO residential customers over the two-year period is shown below. The same customers will participate in the Program in Years 1 and 2.

	KCP&L-MO Annual Participants (Projected)
Year 1	90,000
Year 2	90,000

# 6. Program Benefit-Cost Analysis

All five benefit-cost tests are shown below for the Program. 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.

Test Name	Market Based Test Results	Cost Based Test Results
Utility Test	1.45	1.58
TRC Test	1.45	1.58
RIM Test	0.36	0.39
RIM (Net Fuel)	0.42	0.46
Societal Test	1.55	1.68
Participant Test	N/A	N/A

Assumptions	
Utility Discount Rate (%)	6.961%
Participant Discount Rate (%)	10.00%
Electric Losses (%)	6.56%
Societal Discount Rate1 (%)	3.00%

Avoided Costs		
Avoided T&D (\$ / kW)	**	**
Cost-Based Proxy for Avoided	**	**
Capacity (\$ / kW Annualized)		

Emissions Costs	\$ / kWh
SOx	\$0.000001
NOx	\$0.000032
CO2	\$0.002670
Total	\$0.0027

Cost Based Avoided Electric Production	**	**
Avoided Electric Capacity	**	**
Avoided T&D Electric	**	**
Total Cost Based Avoided Costs	**	**

Market Based Avoided Electric Production Costs	**	**
Program Costs		·
Administration Costs	**	**
Implementation / Participation Costs	**	**
Other / Miscellaneous Costs	**	**
Incentives	**	**
Total	**	**
Participant Cost (Gross)	**	**
Other Environmental Benefits,		**
NOx SOx	**	<b></b>
Lost Revenue		
Gross Lost Revenue, Electric	**	**
Net Fuel Lost Revenue, Electric	**	**

# 7. Program Evaluation, Measurement and Verification Plan

KCP&L-MO will conduct program evaluation, measurement and verification (EM&V) pursuant to 4 CSR 240-3.163(7) and 4 CSR 240-20.093(7).

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-MO 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-MO'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 cobenefits (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 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: With no measures being installed tied to a rebate, verification is not needed for this program.

KCP&L-MO will retain one or more EM&V contractors to perform process and impact evaluations for its programs and assess progress of market transformation in order to avoid conflicts of interest and to insure credibility of the evaluation results, as well as comply with Commission requirements. KCP&L-MO expects to conduct EM&V of the Program at the end of the plan period.

# 8. Program Budget (Two-Year)

The expected budget for the Program over the two-year period is shown below.

Admin	rogram Other Including elivery Implementation EM&V	<b>Fotal</b>
Year 1 **		**
Year 2 **		**
Total **		

### 9. Strategies to Minimize Free Riders and Maximize Spillover

The development of this Program incorporated available information from market studies, consultant studies and the California Database for Energy Efficient Resources (DEER) on program impacts of free ridership and spillover in the initial program design. At the end of the plan period, KCP&L-MO will perform an EM&V study and these results will be incorporated into the Program design. This process provides the input necessary to minimize free-ridership and maximize spillover.

# Income-Eligible Home Energy Report Program – Pilot Program Description

The following information regarding KCP&L-MO's (Company) proposed Income-Eligible Home Energy Report Program – Pilot (Program) is provided in compliance with 4 CSR 240-3.164(2)(C).

# 1. Program Description

The Income-Eligible Program is highly tailored to this traditionally difficult to engage population. It is designed to help low-income customers save money on their bills through low or no-cost actions as well as to increase engagement of low-income households in other low-income programs thereby helping low-income customers take full advantage of the programs available to them. Some examples of what is customized for KCP&L's low-income group include:

- Fully customized welcome experience provides customers with information about other KCP&L low income programs
- Home Energy Reports throughout the program term are tailored to each unique low income customer, based on their usage level, size and type of home, and whether they rent or own their home
- Tips and recommendations are targeted to be particularly relevant for low income customers, with most tips free or very inexpensive
- Targeted promotions: Low-income customers will receive special program offers, such as the Low Income Weatherization Program, Budget Billing, etc. are targeted to the customers who they are most relevant for
- Non-low-income customers could receive a promotion for charitable gift program to help low income customers pay their bills, e.g. Dollar-Aide

The Program provides select low-income residential customers with an Energy Report that provides a comparison of the household energy usage information with similar type customers or "neighbors." The intention of the Energy Report is to provide information that will influence customers' behavior in such a way that they lower their energy usage.

This is a behavioral modification program. This program element will operate as an opt-out only program, which means KCP&L-MO will select low-income customers for participation in the Program. Program participants will be mailed an energy usage report on how energy is used by their households on a bi-monthly basis. The customer's home energy usage is compared to the average usage of households that are geographically located in close approximation of one another and have similar characteristics such as dwelling size and heating type.

The report displays a monthly neighbor comparison, a 12-month neighbor comparison, a personal comparison of this year's usage versus last year and specific energy tips that are based on the characteristics and usage of the household.

# 2. <u>Income-Eligible Home Energy Reports Measures List and Incentive Levels</u> N/A

# 3. Program Goal

## Proposed energy and demand savings targets - time horizon

The projected annual incremental savings targets during the plan period (at the meter) are listed below.

Year	Program Energy Savings (kWh)	Program Demand Savings (kW)
2014	723,966	0
2015	2,478,148	769

The expected savings for this Program are based on 1.0 ratio of Net to Gross.

# 4. Program Framework/Strategy

## Relationship to other programs

The Program is designed for residential customers; therefore, the Program has a strong relationship through promotion with the Company's other residential demand-side management (DSM) programs, such as the Air Conditioning Upgrade program, Home Appliance Rebate program, Home Appliance Recycling program, Home Lighting Rebate program, Income-Eligible Weatherization program, and Programmable Thermostat program.

## Marketing strategy

Customers will be selected to participate from a few main sources:

- 1) Recent LIHEAP participants
- 2) Recent Economic Relief Pilot Program participants
- 3) KCP&L median household income segmentation data (households <\$30,000 annually)

Then the following will be checked to ensure that the household is eligible for the program:

- The home is not unreasonably small (less than 250 sq ft) or large
- Historic usage is not unreasonably low (10 kWh / month) or high
- The home has enough similar homes in the area (i.e., isn't significantly larger than the other homes in a sparsely populated area)
- All of the customer data, meter information, and usage reads look right (i.e., no missing name on the account, only one account per address, no gaps in usage history, etc.)
- The home has sufficient usage history.

The overall marketing strategy will largely operate as a continued education and awareness of energy efficiency because this Program is conducted on an opt-out basis. Marketing will primarily occur through customized messages on participants' reports. Program participants will also be reached via e-channels and through additional targeted mailings based on energy reduction needs. In addition, the Company intends to partner with retailers to offer coded and measurable discounts and coupons that offer a call to action on energy reduction.

## Key Messages:

- Reduce your energy usage check out more energy saving opportunities at www.kcpl.com.
- Become a more informed user of energy and see how easily you can save money on your monthly expenses.
- Being more energy efficient is as simple as slightly changing an existing habit or pattern.

# Program delivery

The Home Energy Reports will be implemented by KCP&L-MO with necessary resources to administer the Program including a third party implementer who will be responsible for the actual report creation.

The Program Administrator will utilize KCP&L-MO's customer database to create customized energy usage reports. KCP&L-MO will utilize an internal program manager to conduct its own administration of the Program. KCP&L-MO's Program Manager will maintain oversight of the Program. As the Program expands, additional call center personnel will be trained to field customer questions and manage program opt-out requests. The implementation of this Program is dependent on large data transfer mechanism set-up and is expected to be available in July 2014.

## 5. Program Beneficiaries

# Expected number of participants by customer class or subclass

The number of expected Program end use measures (net-free) expected to be undertaken by KCP&L-MO residential customers over the two-year period is shown below. The same customers will participate in the Program in Years 1 and 2.

	KCP&L-MO Annual Participants (Projected)
Year 1	20,000
Year 2	20,000

#### 6. Program Benefit-Cost Analysis

All five benefit-cost tests are shown below for the Program. 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.

Test Name	Market Based Test Results	Cost Based Test Results	
Utility Test	0.28	0.31	
TRC Test	0.28	0.31	
RIM Test	0.18	0.19	
RIM (Net Fuel)	0.19	0.21	
Societal Test	0.30	0.33	
Participant Test	N/A	N/A	

Assumptions	
Utility Discount Rate (%)	6.961%
Participant Discount Rate (%)	10.00%
Electric Losses (%)	6.56%
Societal Discount Rate1 (%)	3.00%

Avoided Costs		
Avoided T&D (\$ / kW)	**	**
Cost-Based Proxy for Avoided	**	**
Capacity (\$ / kW Annualized)		

Emissions Costs	\$/kWh
SOx	\$0.00001
NOx	\$0.000032
CO2	\$0.002670
Total	\$0.0027

Cost Based Avoided Electric Production	**	**
Avoided Electric Capacity	**	**
Avoided T&D Electric	**	**
Total Cost Based Avoided Costs	**	**

Market Based Avoided	**	**
Electric Production Costs		

Program Costs		
Administration Costs	**	**
Implementation / Participation Costs	**	**
Other / Miscellaneous Costs	**	**
Incentives	**	**
Total	**	**

	**	**	
Participant Cost (Gross)			

Other Environmental Benefits, NOx SOx	**	
Lost Revenue		
Gross Lost Revenue, Electric	**	**
Net Fuel Lost Revenue, Electric	**	**

# 7. Program Evaluation, Measurement and Verification Plan

KCP&L-MO will conduct program evaluation, measurement and verification (EM&V) pursuant to 4 CSR 240-3.163(7) and 4 CSR 240-20.093(7).

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-MO 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-MO'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 cobenefits (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 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: With no measures being installed tied to a rebate, verification is not needed for this program.

KCP&L-MO will retain one or more EM&V contractors to perform process and impact evaluations for its programs and assess progress of market transformation in order to avoid conflicts of interest and to insure credibility of the evaluation results, as well as comply with Commission requirements. KCP&L-MO expects to conduct EM&V of the Program at the end of the plan period.

## 8. Program Budget (Two-Year)

The expected budget for the Program over the two-year period is shown below.

Program   Admin Delivery Implement	Other Including ation EM&V Total
Year 1 ** **	
Year 2 **	。这是这种是一个是一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一
Total **	**

## 9. Strategies to Minimize Free Riders and Maximize Spillover

The development of this Program incorporated available information from market studies, consultant studies and the California Database for Energy Efficient Resources (DEER) on program impacts of free ridership and spillover in the initial program design. At the end of the plan period, KCP&L-MO will perform an EM&V study and these results will be incorporated into the Program design. This process provides the input necessary to minimize free-ridership and maximize spillover.

# **Home Lighting Rebate Program Description**

The following information regarding KCP&L-MO's (Company) proposed Home Lighting Rebate Program (Program) is provided in compliance with 4 CSR 240-3.164(2)(C).

## 1. Program Description

The Program promotes energy efficient lighting. The Program uses a two-pronged approach: (1) increasing supply of qualifying products through partnerships with retailers, manufacturers and distributors, and (2) creating demand through consumer awareness and understanding of the ENERGY STAR label and the benefits of energy efficiency.

KCP&L-MO will also promote energy efficient lighting, such as solid-state lighting and light emitting diode technologies.

# 2. Home Lighting Rebate Measures List and Incentive Levels

With the Program, KCP&L-MO will target specific measures to achieve energy/demand reduction. These include, but are not limited to, the following measures:

Measure	Unit	Year 1 Incentive
CFLs	per lamp	\$1.35
LEDs	per lamp	\$5.00

KCP&L-MO reserves the option to offer additional measures and alter incentive levels that are approved and pass the TRC test listed in Schedule KHW-4. For customer communication, eligible incentives directly paid to customer and measures will be found at www.kcpl.com.

## 3. Program Goal and Budget

The projected participation and savings targets presented are based on the market potential identified within the potential study: Schedule KHW-3: Demand Side Resource Potential Study, 2014-2033 by Navigant Energy.

The Program is a new program in KCP&L-MO's portfolio and will require an implementation start date post approval of the MEEIA effective date. The timing will be solidified once an implementation contractor has been selected and the final scope of the program design is established.

# Expected energy and demand savings – time horizon

Program targets, market potential and penetration rates were defined using the potential study as a source for savings targets.

The projected annual incremental savings targets during the plan period (at the meter) applying a net to gross ratio for CFLs only of 0.9 in 2014 and 0.7 in 2015 are listed below.

Year	Program Energy Savings	Program Demand Savings
	(kWh)	(kW)
2014	6,632,643	704
2015	10,883,754	1,155

# 4. Program Framework/Strategy

## Relationship to other programs

The Program is designed for residential customers; therefore, the Program has a strong relationship through promotion with the Company's other residential demand side management (DSM) programs, such as the Air Conditioning Upgrade Rebate, Income-Eligible Weatherization, Programmable Thermostat Program, Home Energy Reports Pilot, and Home Energy Analyzer.

## **Marketing Strategy**

The proposed marketing strategy includes:

- Building a strong, consistent message informing customers that the Program will result in annual
  cost savings by purchasing and installing energy efficient lighting and;
- Strengthening KCP&L-MO's relationship with ENERGY STAR retailers.

The Program includes customer educational and promotional pieces designed to assist residential customers with the information necessary to improve the energy efficiency of their entire home. The Program also includes customer and trade ally education to assist with understanding the technologies and applications promoted, the incentives offered, and how the Program functions.

## **Customer Marketing Tactics**

The following customer marketing activities are anticipated:

- Promote Program on www.kcpl.com Home Page, within site and in account payment portal (AccountLink).
- Provide promotional information embedded in the Home Energy Analyzer Program.
- Direct mail campaigns.
- Conduct telemarketing in conjunction with other campaigns.
- Bill inserts and html email campaigns.
- Print advertising in local newspapers and magazines.
- Participation in Earth Day, Home Shows, and large customer employee fairs by providing brochures featuring the benefits and process to participate.

## **Retailer Marketing Tactics**

KCP&L-MO will increase its efforts with retailers with the following:

- · Schedule retailer meetings at least once a year.
- Provide updates on KCPL-MO energy efficiency applications, program updates, budgets/goals, etc.
- Facilitate networking.
- · Provide marketing tools.
- Provide marketing support to drive program participation.

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

## **Externally Published Communications:**

- The Kansas City Star.
- Greenability magazine or other sustainability publications.

## Internally Published Communications:

- Newsletters.
- · Bill messaging.
- On line promotion with the KCP&L-MO's other e-Services products.

## Other marketing activities may include:

- Online advertising will be used with Google AdWords.
- 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.
- · Sponsor spots on public radio.

### **Program Delivery**

KCP&L-MO will primarily offer instant discounts at participating retailers through a buy down program through which the incentive is given to the distributor or manufacturer prior to being available at the retailer store.

Participating retailers will be targeted by reviewing stores to determine stores that have 80% of the meters are in the KCP&L-MO territory are in zip codes within 5 miles of the store.

The program will also be offered through community food banks where possible to distribute bulbs to target markets. Other best practices such as online stores may be utilized as well.

A mail-in rebate may also be considered as an alternative if KCP&L-MO determines it will be beneficial to customer participation. The Program will be implemented by KCP&L-MO with necessary resources to administer the Program. An implementation contractor may be responsible for items such as managing the buy down program with retailers, rebate processing, communication with the customer to resolve application issues, and status reporting associated with the Program, as directed by the KCP&L-MO.

KCP&L-MO will utilize an internal program manager to conduct its own administration of the program. The Program Manager will maintain oversight of the Program.

#### **Partners**

Partners include KCP&L-MO internal staff, various manufacturers, product distributors, retailers, local Chamber of Commerce organizations, and others as needed to promote and encourage customer participation in the program.

# 5. Program Beneficiaries

## Expected number of participants by customer class or subclass

The number of expected Program end use measures (net-free) expected to be undertaken by KCP&L-MO residential customers over the two-year period is shown below.

	KCP&L-MO Annual End Use Program Measures (Projected)
2014	19,933
2015	49,578
Total	69,511

# KCP&L-MO annual end use Program measures (net-free)

The Net to Gross (NTG) Factor for CFL measures is 0.9 in program year 1 and 0.7 in program year 2. LED measures remain at NTG factor of 1.0 for both years.

### 6. Program Benefit-Cost Analysis

All five benefit-cost tests are shown below for the Program. 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.

Test Name	Market Based Test Results	Cost Based Test Results
Utility Test	1.99	2.15
TRC Test	1.54	1.66
RIM Test	0.39	0.42
RIM (Net Fuel)	0.48	0.52
Societal Test	1.74	1.87
Participant Test	5.12	5.12

Assumptions	
Utility Discount Rate (%)	6.961%
Participant Discount Rate (%)	10.00%
Electric Losses (%)	6.56%
Societal Discount Rate1 (%)	3.00%

Avoided Costs	
Avoided T&D (\$ / kW)	**
Cost-Based Proxy for Avoided	**
Capacity (\$ / kW Annualized)	

<b>Emissions Costs</b>	\$ / kWh
SOx	\$0.00001
NOx	\$0.000032
CO2	\$0.002670
Total	\$0.0027

Cost Based Avoided Electric Production	**	**
Avoided Electric Capacity	**	**
Avoided T&D Electric	**	**
Total Cost Based Avoided Costs	**	**

Market Based Avoided	**
Electric Production Costs	

Program Costs		
Administration Costs	**	**
Implementation / Participation Costs	**	**
Other / Miscellaneous Costs	**	**
Incentives	**	**
Total	**	**

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	**
Dorticinant Cost (Cancol	
Participant Cost (Gross)	

Other Environmental Benefits, NOx SOx	**	**
Lost Revenue		
Gross Lost Revenue, Electric	**	**
Net Fuel Lost Revenue, Electric	**	**

## 7. Program Evaluation, Measurement and Verification Plan

KCP&L-MO will conduct program evaluation, measurement and verification (EM&V) pursuant to 4 CSR 240-3.163(7) and 4 CSR 240-20.093(7).

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-MO 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-MO'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 cobenefits (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 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-MO 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-MO will retain one or more EM&V contractors to perform process and impact evaluations for its programs and assess progress of market transformation in order to avoid conflicts of interest and to insure credibility of the evaluation results, as well as comply with Commission requirements. KCP&L-MO expects to conduct EM&V of the Program at the end of the plan period.

#### 8. Budget

The following budget has been used for planning purposes. However, KCPL-MO may adjust program budgets as necessary in accordance with current market conditions, EM&V results, and program implementation experience.

	Admin	Implementation	n Incentives	Other Including M&V	Total
Year 1					**
Year 2 ** Total **					**

## 9. Strategies to Minimize Free Riders and Maximize Spillover

The development of this Program incorporated available information from market studies, consultant studies and the California Database for Energy Efficient Resources (DEER) on program impacts of free ridership and spillover in the initial program design. At the end of the plan period, KCP&L-MO will perform an EM&V study and these results will be incorporated into the Program design. This process provides the input necessary to minimize free-ridership and maximize spillover.

7

#### KCP&L-MO MEEIA

## Income-Eligible Weatherization Program Description

The following information regarding KCP&L-MO's (Company) proposed Income-Eligible Weatherization Program (Program) is provided in compliance with 4 CSR 240-3.164(2)(C).

#### 1. Program Description

This voluntary Program is intended to assist residential customers in reducing their energy usage by weatherizing the homes of qualified customers.

This Program is available to KCP&L-MO customers currently receiving service under any generally available residential rate schedule for a minimum of one year prior to completion of an application for weatherization assistance and who also meets the additional customer eligibility requirements defined in the agreement between KCP&L-MO and the Social Service Agency. Customer participation is limited to fund availability and KCP&L-MO reserves the right to modify or terminate this Program at any time, subject to Commission approval.

## 2. Income-Eligible Weatherization Measures List and Incentive Levels

Weatherization expenditures up to \$6,500 per home.

Examples of weatherization measures include: Air sealing, Ceiling Insulation, Wall Insulation, and Window Replacement.

## 3. Program Goals

## Expected energy and demand savings-time horizon

The projected annual incremental savings targets during the plan period (at the meter) are listed below.

Year	Program Energy Savings (kWh)	Program Demand Savings (kW)
2014	178,465	65
2015	580,631	173

## 4. Program Framework/Strategy

## Relationship to other programs

The Program is designed for residential customers; therefore, the Program has a strong relationship through promotion with the Company's other residential demand-side management (DSM) programs, such as the Home Energy Improvements program, Air Conditioning Upgrade Rebate program, Home Lighting Rebate program, Home Energy Reports Pilot, Home Energy Analyzer, and Programmable Thermostat.

#### Marketing strategy

The target market for the Program is residential customers with homes within the KCP&L-MO service territory.

The proposed marketing strategy includes:

- Building a strong, consistent message informing customers that the Program provides assistance to eligible customers for home weatherization improvements.
- KCP&L-MO's marketing strategy will be based on the integration of marketing, bill inserts, direct mail, and energy resource fairs.
- Additionally, KCP&L will have the opportunity to promote to some customers that fit the right income segments of the Home Energy Reports Income Eligible program.

## Key Messages:

- The Program enables low income families to permanently reduce their energy bills by making their homes more energy efficient. For more information visit; www.kcpl.com.
- Typical services include installing insulation, caulking windows, and conducting repairs to heating and central cooling systems.

## **Program delivery**

The Program will be implemented by KCP&L-MO with necessary resources to administer the Program. Agencies throughout KCP&L-MO service area will be charged with providing services to the customers and partnering with customers.

KCP&L-MO will utilize an internal program manager to conduct its own administration of the Program. KCP&L-MO's Program Manager will maintain oversight of the Program. This is an existing Program currently in place that will be implemented as the new MEEIA program on the specified effective date.

## 5. Program Beneficiaries

Expected number of participants by customer class or subclass as identified by the market potential study is shown below. The number of expected program end use measures (net-free) expected to be undertaken by KCP&L-MO residential customers over the two-year period is shown below.

	KCP&L-MO
	Annual
	Participants
	(Projected)
Year 1	568
Year 2	2,055
Total	2,623

## 6. Program Benefit-Cost Analysis

All five benefit-cost tests are shown below for the roll-up of the Program. 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.

Test Name	Market Based Test Results	Cost Based Test Results
Utility Test	0.6	0.7
TRC Test	0.6	0.7
RIM Test	0.4	0.4
RIM (Net Fuel)	0.4	0.4
Societal Test	0.8	0.8
Participant Test	1.8	1.8

Assumptions	
Utility Discount Rate (%)	6.961%
Participant Discount Rate (%)	10.00%
Electric Losses (%)	6.56%
Societal Discount Rate1 (%)	3.00%

Avoided Costs		
Avoided T&D (\$ / kW)	**	**
Cost-Based Proxy for Avoided	**	**
Capacity (\$ / kW Annualized)		

Emissions Costs	\$ / kWh
SOx	\$0.000001
NOx	\$0.000032
CO2	\$0.002670
Total	\$0.0027

Cost Based Avoided Electric Production	**	**
Avoided Electric Capacity	**	**
Avoided T&D Electric	**	**
Total Cost Based Avoided Costs	**	**

Market Based Avoided	**	
Electric Production Costs		

Program Costs		
Administration Costs	**	*
Implementation / Participation Costs	**	*
Other / Miscellaneous Costs	**	*
Incentives	**	*
Total	**	*
Participant Cost (Gross)	**	*
Other Environmental Benefits,	**	*

NOx SOx			
Lost Revenue			
Gross Lost Revenue, Electric	**	**	
Net Fuel Lost Revenue, Electric	**	**	

## 7. Program Evaluation, Measurement and Verification Plan

KCP&L-MO will conduct program evaluation, measurement and verification (EM&V) pursuant to 4 CSR 240-3.163(7) and 4 CSR 240-20.093(7).

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-MO 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-MO'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 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-MO 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-MO will retain one or more EM&V contractors to perform process and impact evaluations for its programs and assess progress of market transformation in order to avoid conflicts of interest and to insure credibility of the evaluation results, as well as comply with Commission requirements. KCP&L-MO expects to conduct EM&V of the Program at the end of the plan period.

#### 8. Program Budget (Two-Year)

The expected budget for the Program over the two-year period is shown below.

Admir	n Implementation	Incentives	Other Including EM&V	Total
Year 1 ** Year 2 **				**
Total **				**

## 9. Strategies to Minimize Free Riders and Maximize Spillover

The development of this Program incorporated available information from market studies, consultant studies and the California Database for Energy Efficient Resources (DEER) on program impacts of free ridership and spillover in the initial program design. At the end of the plan period, KCP&L-MO will perform an EM&V study and these results will be incorporated into the Program design. This process provides the input necessary to minimize free-ridership and maximize spillover.

## **KCP&L-MO MEEIA**

## **Programmable Thermostat Program Description**

The following information regarding KCP&L-MO's (Company) proposed Programmable Thermostat Program (Program) is provided in compliance with 4 CSR 240-3.164(2)(C).

#### 1. Program Description

KCP&L-MO's Program addresses the opportunity for load reduction on the Company's system on peak summer days. This demand response program focuses on residential and small to midtier commercial customers with peak demand less than 200 kW.

Customers who partner with KCP&L-MO 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. Additionally, customers have the opportunity to have a Wi-Fi enabled thermostat that will connect to an "app" for their smartphones or tablets to allow for customers to adjust and interact with their thermostat settings.

The Company achieves load reduction with the 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-MO;
- 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 demand response season for the Program is designed to run from June 1 to September 30 each year. 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 by phone.

With new programmable thermostat technology emerging and gaining penetration KCP&L-MO will take the opportunity to evaluate the potential of new thermostat technologies in conjunction with EPRI's smart thermostat research project. The primary purpose of this evaluation will be to determine the achievable energy efficiency and demand response impacts for this Program. Secondary to that, the research project will evaluate the technology specifications of various smart thermostats on the market such as their different architectures for providing utility demand response.

## 2. Program Goals

Proposed incremental annual energy and demand savings targets.

The projected annual incremental savings targets during the plan period (at the meter) are listed below.

Year	Program Energy Savings (kWh)	Program Demand Savings (kW)
2014	-	17,590
2015	-	2,371

The Net To Gross Factor for all measures is 1.0.

## 3. Program Framework/Strategy

## Relationship to other programs

The Program has significant awareness throughout the KCP&L –MO service territory. This awareness serves as a natural conduit to promote other demand-side management (DSM) programs and energy efficiency in general.

## Marketing strategy

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

- Direct Mail.
- Promote Program on <u>www.kcpl.com</u> home page, within <u>www.kcpl.com</u>, 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-MO commercial customers for their employees.
- Participation in Chamber of Commerce meetings to increase general awareness of the Program and distribute Program promotional materials.

#### Web Presence:

The Programmable Thermostat website will serve as an information source to existing and new participants, promoting an understanding of program benefits, and providing a dedicated phone number for customer service.

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

## Sales Approach

The Programmable Thermostat 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-MO's account management group.

## **Program delivery**

This Program will be implemented by a third party to provide turn-key services including, but not limited to hardware and software solution platform/s as well as services for customer recruitment, appointment setting, installation, program maintenance activities, and a dedicated customer call center.

KCP&L-MO will utilize an internal program manager to conduct its own administration of the program. The Program Manager will maintain oversight of the Program.

## 4. Program Beneficiaries

## Expected number of participants by customer class or subclass

The number of expected program end use thermostats expected to be undertaken by KCP&L-MO residential customers over the two-year period is shown below.

·	KCP&L-MO Annual End Use
	Program Measures (Projected Thermostats)
2014	21,735
2015	24,665
Total	24,665

## B. Other beneficiaries

No other beneficiaries have been observed.

## 5. Program Benefit-Cost Analysis

All five benefit-cost tests are listed for the roll-up of the Program. The dollar values 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 over the measure life.

Test Name	Market Based Test Results	Cost Based Test Results
Utility Test	1.89	1.89
TRC Test	1.89	1.89
RIM Test	1.89	1.89
RIM (Net Fuel)	1.89	1.89
Societal Test	1.94	1.94
Participant Test	N/A	N/A

Assumptions	
Utility Discount Rate (%)	6.961%
Participant Discount Rate (%)	10.00%
Electric Losses (%)	6.56%
Societal Discount Rate1 (%)	3.00%

Avoided Costs		
Avoided T&D (\$ / kW)	**	**
Cost-Based Proxy for Avoided	**	**
Capacity (\$ / kW Annualized)		

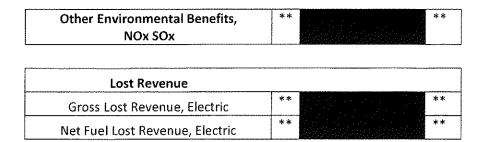
Emissions Costs	\$ / kWh
SOx	\$0.000001
NOx	\$0.000032
CO2	\$0.002670
Total	\$0.0027

Cost Based Avoided Electric Production	-0-
Avoided Electric Capacity	**
Avoided T&D Electric	**
Total Cost Based Avoided Costs	**

Market Based Avoided	
Electric Production Costs	-0-

Program Costs		
Administration Costs	**	**
Implementation / Participation Costs	**	**
Other / Miscellaneous Costs	**	**
Incentives	**	**
Total	**	**

	<del></del>	
Participant Cost (Gross)	**	**



## 6. Program Evaluation, Measurement and Verification Plan

KCP&L-MO will conduct program evaluation, measurement and verification (EM&V) pursuant to 4 CSR 240-3.163(7) and 4 CSR 240-20.093(7).

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-MO 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 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-MO 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-MO will retain one or more EM&V contractors to perform process and impact evaluations for its programs and assess progress of market transformation in order to avoid conflicts of interest and to insure credibility of the evaluation results, as well as comply with Commission requirements. KCP&L-MO expects to conduct EM&V of the Program at the end of the plan period.

## 7. Program Budget (Two-Year)

The following budget has been used for planning purposes. However, the KCP&L-MO may adjust program budgets as necessary in accordance with current market conditions, EM&V results, and program implementation experience.

	Admin Impleme	ntation Incent	Other In	
Year 1 ** Year 2 **				**
Total **				**

#### 8. Strategies to Minimize Free Riders and Maximize Spillover

Customers would not be expected to curtail load if they were a non-participant.

#### KCP&L-MO MEEIA

## **Building Operator Certification Program Description**

The following information regarding KCP&L-MO (Company) proposed Building Operator Certification Program (Program) is provided in compliance with 4 CSR 240-3.164(2)(C).

#### 1. Program Description

The Program is a competency-based training and certification program for building operators offering improved job skills and more comfortable, efficient facilities. Operators earn certification by attending training and completing project assignments in their facilities. The partners for the Program include the Missouri Department of Economic Development (MO DED), Midwest Energy Efficiency Alliance (MEEA), and Northwest Energy Efficiency Coalition (NEEC).

#### KCP&L-MO will:

- Reimburse the annual cost to license the Level 1 and Level 2 curriculums for KCP&L-MO service territory.
- Reimburse 50 percent of the tuition costs upon course curriculum completion for Building Operators associated with properties in KCP&L-MO service area that successfully complete the certifications.

#### 2. Building Operator Certification Measures List and Incentive Levels

Current reimbursement for class offering is \$575 per participant.

#### 3. Program Goals

## Expected energy and demand savings - time horizon

The projected annual incremental savings targets during the plan period (at the meter) are listed below.

Year	Program Energy Savings (kWh)	Program Demand Savings (kW)
2014	759,251	87
2015	1,518,500	173

## 4. Program Framework/Strategy

#### Relationship to other programs

The Program is designed for commercial and industrial (C&I) customers; therefore, the Program has a strong relationship through promotion with the Company's other C&I demand-side management (DSM) programs, such as the Business Energy Efficiency Rebates, Custom and Standard Rebate Programs, Demand Response Incentive Program, Programmable Thermostat Program (for small general service customers), and Business Energy Analyzer.

## Marketing strategy

The target market for the Program is KCP&L-MO commercial building operators and facility personnel. The overall marketing strategy will largely operate as a continued education and

awareness of energy efficiency within customer commercial facilities. Marketing will primarily occur through target marketing of customers with dedicated facility operations personnel. Program participants will also be reached via e-channels and through additional targeted mailings.

## Key Messages:

- Improve your building's efficiency Learn the latest information and technology and network with peers through this comprehensive 7 part training series at the Company's website.
- Become a more informed user of energy and see how easily you can save money on your monthly expenses.
- Identify ways to reduce unscheduled maintenance and increase Operations & Maintenance staff capabilities.

## Program delivery

The Program will be implemented by KCP&L-MO with necessary resources to administer the Program. KCP&L-MO will utilize an internal program manager to conduct its own administration of the program in coordination with MEEA and MO DED program managers. KCP&L-MO's Program Manager will maintain oversight of the Program. As the Program expands, additional call center personnel will be trained to field customer questions and manage Program opt-out requests. This Program is expected to be implemented as soon as approval for KCPL-MO MEEIA has been obtained since it is an existing program.

## 5. Program Beneficiaries

## Expected number of participants by customer class or subclass

The number of expected program end use measures (net-free) expected to be undertaken by KCP&L-MO commercial customers over the two-year period are shown below:

	KCP&L-MO Annual Participant (Projected)	
2014	5	
2015	10	
Total	15	

#### 6. Program Benefit-Cost Analysis

All five benefit-cost tests are shown below for the roll-up of the Program. 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.

	Market Based	Cost Based
Test Name	Test Results	Test Results
Utility Test	8.03	8.76
TRC Test	8,36	9.12
RIM Test	0.91	0.99
RIM (Net Fuel)	1.52	1.66

Societal Test	9.48	10.30
Participant Test	28.12	28.12

Assumptions	
Utility Discount Rate (%)	6.961%
Participant Discount Rate (%)	10.00%
Electric Losses (%)	6.56%
Societal Discount Rate1 (%)	3.00%

Avoided Costs		
Avoided T&D (\$ / kW)	**	**
Cost-Based Proxy for Avoided	**	**
Capacity (\$ / kW Annualized)		

Emissions Costs	\$ / kWh
SOx	\$0.000001
NOx	\$0.000032
CO2	\$0.002670
Total	\$0.0027

Cost Based Avoided Electric Production	**	**
Avoided Electric Capacity	**	**
Avoided T&D Electric	**	**
Total Cost Based Avoided Costs	**	**

# Market Based Avoided Electric Production Costs

Program Costs		
Administration Costs	**	**
Implementation / Participation Costs	**	**
Other / Miscellaneous Costs	**	**
Incentives	**	**
Total	**	**

	·	 
Participant Cost (Gross)	**	**

Other Environmental Benefits,	**	**
NOx SOx		

Lost Revenue		
Gross Lost Revenue, Electric	**	**
Net Fuel Lost Revenue, Electric	**	**

## 7. Program Evaluation, Measurement and Verification Plan

Program evaluation, measurement and verification (EM&V) are key elements of 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 which will be utilized by KCP&L-MO 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 will be developed by the selected evaluation contractor(s) and will 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 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-MO 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.

Market Transformation: This is the strategic process of intervening in a market to create lasting change in market behavior by removing identified barriers or using opportunities to accelerate the adoption of all cost-effective energy efficiency as a matter of standard practice.

KCP&L-MO will retain one or more EM&V contractors to perform process and impact evaluations for its programs and assess progress of market transformation in order to avoid conflicts of interest and to insure credibility of the evaluation results, as well as comply with Commission requirements. KCP&L-MO expects to conduct EM&V of the Program at the end of the plan period.

## 8. Program Budget (Two-Year)

The expected budget for the Program over the two-year period is shown below.

	Ad	min   Inc	entives l	mplementa	tion Othe	er Including El	VI&V Total	
Year 1	**							**
Year 2	**							**
Total	**							**

## 9. Strategies to minimize free riders and maximize spillover

The development of this Program incorporated available information from market studies, consultant studies and the California Database for Energy Efficient Resources (DEER) on program impacts of free ridership and spillover in the initial program design. At the end of the plan period, KCP&L-MO will perform an EM&V study and these results will be incorporated into the Program design. This process provides the input necessary to minimize free-ridership and maximize spillover.

#### KCP&L-MO MEEIA

## **Business Energy Analyzer Program Description**

The following information regarding KCP&L-MO (Company) proposed Business Energy Analyzer Program (Program) is provided in compliance with 4 CSR 240-3.164(2)(C).

#### 1. Program Description

This Program allows customers served with respect to this tariff to retrieve their billing information, make comparisons of electric usage on a monthly or yearly basis, and analyze electric usage on an end use basis, and research energy savings by heating, cooling, lighting and other electrical equipment through a searchable resource center. Customers can also compare their bills to analyze changes from one month to another. They may also compare their business to similar facilities in terms of average energy consumption.

## 2. Measures List and Incentive Levels

N/A

#### 3. Program Goals

N/A (Educational program)

## 4. Program Framework/Strategy

## Relationship to other programs

The Program is designed for commercial and industrial (C&I) customers; therefore, the Program has a strong relationship through promotion with the Company's other C&I demand-side management (DSM) programs, such as the Business Energy Efficiency Rebates, Custom and Standard Rebate Programs, Demand Response Incentive Program, Programmable Thermostat Program (for small general service customers), and Building Operator Certification Program.

#### Marketing strategy

The target market for the Program is KCP&L-MO commercial building operators and facility personnel.

The overall marketing strategy will largely operate as a general education and awareness of energy efficiency within customer commercial facilities. Marketing will primarily occur through direct bill inserts and target marketing of commercial customer facilities within the KCP&L-MO service territory. Program participants will also be reached via e-channels and through additional targeted mailings.

#### Key Messages:

- Improve your buildings efficiency See where your energy dollars go and find ways to lower your energy costs for your business at www.kcpl.com.
- See how your energy costs stack up against similar businesses.
- Benchmark your energy costs across your locations.

## **Program delivery**

The Program will be implemented by KCP&L-MO with necessary resources to administer the Program. KCP&L-MO will utilize an internal Program Manager to conduct its own administration of the Program. KCP&L-MO's Program Manager will maintain oversight of the Program.

## 5. Program Beneficiaries

## Expected number of participants by customer class or subclass

The number of expected program end use measures (net-free) expected to be undertaken by KCP&L-MO commercial customers over the two-year period is shown below:

	KCP&L-MO (F	Annual Pa Projected)	rticipants
Year 1	elj, esse	100	
Year 2		200	

## 6. Program Benefit Cost Analysis

N/A

## 7. Program Evaluation, Measurement and Verification Plan

KCP&L-MO will conduct program evaluation, measurement and verification (EM&V) pursuant to 4 CSR 240-3.163(7) and 4 CSR 240-20.093(7). 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-MO 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-MO'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 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-MO 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-MO retains one or more EM&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 EM&V contractor. KCP&L-MO expects to conduct EM&V of the Program at the end of the plan period.

## 8. Program Budget (Two-Year)

The expected budget for the Program over the two-year period is shown below:

	Admin	Incentives	Implementation	Other Including EM&V	Total
Year 1 **					**
Year 2 **					**
Total **					**

## 9. Strategies to minimize free riders and maximize spillover

The development of this Program incorporated available information from market studies, consultant studies and the California Database for Energy Efficient Resources (DEER) on program impacts of free ridership and spillover in the initial program design. At the end of the plan period, KCP&L-MO will perform an EM&V study and these results will be incorporated into the Program design. This process provides the input necessary to minimize free-ridership and maximize spillover.

#### KCP&L-MO MEEIA

## **Business Energy Efficiency Rebate - Custom Program Description**

The following information regarding KCP&L-MO (Company) proposed Business Energy Efficiency Rebate - Custom Program (Program) is provided in compliance with 4 CSR 240-3.164(2)(C).

## 1. Program Description

The Program is designed to encourage more effective utilization of electric energy through energy efficiency improvements in the building shell, installation of efficient electrical equipment in new construction, or the replacement of inefficient electrical equipment with efficient electrical equipment in existing facilities. The Program provides rebates for energy saving improvements not specifically covered under the KCP&L-MO Standard program.

The Program provides a rebate for installing qualifying high efficiency equipment or systems, or replacing or retrofitting HVAC systems, motors, lighting, pumps or other qualifying equipment or systems with higher energy efficiency equipment or systems. Both new construction projects and retrofit projects are eligible to apply. To become a Participant in the Program customers must request a rebate for an energy saving measures project by submitting an application through the Company's website or on paper. Projects must be pre-approved by the Company before the project start date to be eligible for a rebate. Rebates can be for either new construction or retrofit projects.

The total amount of Program (Business Energy Efficiency Rebate – Custom & Standard) rebates that a Participant can receive during a Program year is limited to \$250,000 per customer or up to two-times the projected Demand Side Investment Mechanism (DSIM) charge of the customer if it is greater than \$125,000. Rebate applications for different energy saving measures at the same facility may be submitted. An entity with multiple facilities may participate for each facility by submitting an application for each facility. The maximum amount of each rebate will be calculated as the lesser of the buy down to a two-year payback or 50% of the incremental cost of the higher efficiency equipment, system, or energy saving measure.

The rebate for the measure and improvement will be issued upon completion of the project. After the Company reviews projects approved and/or paid during the first six months of a Program year, the Company may approve application for additional rebates if the Program funds are available.

New construction is not eligible for T12 retrofit rebates at any time. Other rebates for T12 retrofits will not be available for new projects in program year two. Projects preapproved in program year 1 will be provided six months from preapproval to complete with the program guidelines.

## 2. <u>Business Energy Efficiency Custom Rebate Measures List and Incentive Levels</u> N/A

## 3. Program Goals

## Expected energy and demand savings - time horizon

The projected annual incremental savings targets during the plan period (at the meter) are listed below.

Year	Program Energy Savings (kWh)	Program Demand Savings (kW)
2014	9,481,194	2,590
2015	20,704,037	5,411

## 4. Program Framework/Strategy

## Relationship to other programs

The Program is designed for commercial and industrial (C&I) customers; therefore, the Program has a strong relationship through promotion with the Company's other C&I demand-side management (DSM) programs, such as the Business Energy Efficiency Rebate Standard Program, Building Operator Certification (BOC) program, Demand Response Incentive Program, Programmable Thermostat Program (for small general service customers), and Business Energy Analyzer.

#### Marketing strategy

The target market for the Program is KCP&L-MO C&I customers whose operations could most benefit from a custom approach to installing measures not covered by the Standard program. Marketing will primarily occur through direct bill inserts and target marketing of high-potential C&I customer facilities within the KCP&L-MO service territory. Program participants will also be reached via e-channels and through additional targeted mailings, trade allies and KCP&L Account Managers.

#### Key Messages:

- Improve your buildings efficiency Identify eligible equipment for retrofit or new construction projects for your facilities.
- Reduce operating costs and increase business efficiency by focusing on comprehensive, "whole building" energy savings.
- Lower the upfront costs by leveraging the rebate program to make high efficiency improvements to your facilities.

## Program delivery

The Program will be implemented by KCP&L-MO with a third party program administrator who will be responsible for processing, providing analysis and approving applications. KCP&L-MO will utilize an internal program manager to conduct oversight and set overall direction of the program including target marketing and promotion.

#### **Partners**

Partners include KCP&L-MO internal staff, various vendor affiliates, ESCO's, independent affiliates, and a third party vendor to conduct project analysis, application processing and evaluation.

## 5. Program Beneficiaries

## Expected number of participants by customer class or subclass

The number of expected Program end use measures (gross) expected to be undertaken by Missouri commercial customers over the two-year period is shown below:

	KCP&L-MO Annual End Use Measures (Projected)			
2014	2,456			
2015	4,970			
Total	7,426			

## 6. Program Benefit-Cost Analysis

All five benefit-cost tests are shown below for the Program. 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.

Test Name	Market Based Test Results	Cost Based Test Results
Utility Test	3.53	3.82
TRC Test	1.98	2.14
RIM Test	1.11	1.20
RIM (Net Fuel)	1.71	1.85
Societal Test	2.50	2.71
Participant Test	1.80	1.80

Assumptions	
Utility Discount Rate (%)	6.961%
Participant Discount Rate (%)	10.00%
Electric Losses (%)	6.56%
Societal Discount Rate1 (%)	3.00%

Avoided Costs		_
Avoided T&D (\$ / kW)	**	**
Cost-Based Proxy for Avoided	**	**
Capacity (\$ / kW Annualized)		

Emissions Costs	\$ / kWh
SOx	\$0.000001
NOx	\$0.000032
CO2	\$0.002670
Total	\$0.0027

Cost Based Avoided Electric Production	**	**
Avoided Electric Capacity	**	**
Avoided T&D Electric	**	**
Total Cost Based Avoided Costs	**	**

Market Based Avoided	** **
Electric Production Costs	

Program Costs		
Administration Costs	**	**
Implementation / Participation Costs	**	**
Other / Miscellaneous Costs	**	**
Incentives	**	**
Total	**	**

	Participant Cost (Gross)	**
1		· · · · · · · · · · · · · · · · · · ·

Other Environmental Benefits, NOx SOx	**		**
Lost Revenue		A Marith Control	
Gross Lost Revenue, Electric	**		**
Net Fuel Lost Revenue, Electric	**		**

## 7. Program Evaluation, Measurement and Verification Plan

Program evaluation, measurement and verification (EM&V) are key elements of 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.

4

The two types of evaluation which will be utilized by KCP&L-MO 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 will be developed by the selected evaluation contractor(s) and will 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 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-MO 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.

Market Transformation: This is the strategic process of intervening in a market to create lasting change in market behavior by removing identified barriers or using opportunities to accelerate the adoption of all cost-effective energy efficiency as a matter of standard practice.

KCP&L-MO will retain one or more EM&V contractors to perform process and impact evaluations for its programs and assess progress of market transformation in order to avoid conflicts of interest and to insure credibility of the evaluation results, as well as comply with Commission requirements. KCP&L-MO expects to conduct EM&V of the Program at the end of the plan period.

## 8. Program Budget (Two-Year)

The expected budget for the Program over the two-year period is shown below:

		Admin	Impler	mentation	Ince	ntives	Other In	Tota	ı
Year 1	**								**
Year 2	**								**
Total	**								**

## 9. Strategies to Minimize Free Riders and Maximize Spillover

The development of this Program incorporated available information from market studies, consultant studies and the California Database for Energy Efficient Resources (DEER) on program impacts of free ridership and spillover in the initial program design. At the end of the plan period, KCP&L-MO will perform an EM&V study and these results will be incorporated into the Program design. This process provides the input necessary to minimize free-ridership and maximize spillover.

#### KCP&L-MO MEEIA

## Business Energy Efficiency Rebate - Standard Program Description

The following information regarding KCP&L-MO (Company) proposed Business Energy Efficiency Rebate - Standard Program (Program) is provided in compliance with 4 CSR 240-3.164(2)(C).

## 1. Program Description

The primary goal of the Program is to encourage KCP&L-MO's commercial and industrial (C&I) customers to install energy efficient measures in existing facilities. More specifically, the Program is designed to:

- (1) Provide incentives to facility owners and operators for the installation of high efficiency equipment and controls.
- (2) Provide a marketing mechanism for electrical contractors, mechanical contractors, and their distributors to promote energy efficient equipment to end users.

## **Prescriptive Energy Efficiency Measures**

KCP&L-MO's Program rebates provide 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. As measure technology and pricing change the Company reserves the right to modify rebate levels to reflect current market conditions and savings potential.

The Company will maintain and make available a list of cost-effective energy efficient Standard Measures on its website. The Standard 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.

Incentives for each technology will vary based on cost effectiveness and market response. The Program strives to cover up to 50% of the incremental cost of the measure to stimulate the market if it is cost effective. Additional guidelines may be established such as total incentives available per customer per year to assure that funds are allocated across all customer opportunities. Rebates utilizing a T-12 baseline will expire after December 31, 2014.

The total amount of Program (Business Energy Efficiency Rebate – Custom & Standard) rebates that a Participant can receive during a Program year is limited to \$250,000 per customer or up to two-times the projected Demand Side Investment Mechanism (DSIM) charge of the customer if it is greater than \$125,000.

Rebates for T12 retrofits will not be available for new projects in program year two. Projects preapproved in program year 1 will be provided six months from preapproval to complete with the program guidelines.

## 2. Business Energy Efficiency Measures List

With the Program, KCP&L-MO will target specific measures to achieve energy/demand reduction.

Business Energy Efficiency Rebates - Standard (Measures)	2014 Initial Incentive	2015 Incentive Availability	Unit
C&I_Controls - No Occ Sensors_Controls - Occupancy Sensors	\$0.11	Available	per connected watt
C&I_Faucet Aerators - Standard_Faucet Aerators - Lo Flow	\$0.00	Available	per unit
C&I_Hardwired - Incandescent_Hardwired - CFLs	\$22.00	Available	per fixture
C&I_Hardwired - Incandescent_Hardwired - LEDs	\$24.00	Available	per fixture
C&I_Linear Fluorescent - T12_Linear Fluorescent - PREMIUM T8 (8ft 1 lamp)	\$25.00	Not Available	per fixture
C&I_Linear Fluorescent - T12_Linear Fluorescent - PREMIUM T8 (8ft 2 lamp)	\$27.00	Not Available	per fixture
C&I_Linear Fluorescent - T12_Linear Fluorescent - PREMIUM T8 (4ft 4 lamp)	\$28.50	Not Available	per fixture
C&I_Linear Fluorescent - T12_Linear Fluorescent - PREMIUM T8 (4ft 3 lamp)	\$27.00	Not Available	per fixture
C&I_Linear Fluorescent - T12_Linear Fluorescent - PREMIUM T8 (4ft 2 lamp)	\$18.00	Not Available	per fixture
C&I_Linear Fluorescent - T12_Linear Fluorescent - PREMIUM T8 (4ft 1 lamp)	\$16.50	Not Available	per fixture
C&I_Linear Fluorescent - T12_Linear Fluorescent - PREMIUM T8 (3 ft 4 lamp)	\$28.50	Not Available	per fixture
C&I_Linear Fluorescent - T12_Linear Fluorescent - PREMIUM T8 (3 ft 3 lamp)	\$27.00	Not Available	per fixture
C&I_Linear Fluorescent - T12_Linear Fluorescent - PREMIUM T8 (3 ft 2 lamp)	\$18.00	Not Available	per fixture
C&I_Linear Fluorescent - T12_Linear Fluorescent - PREMIUM T8 (3 ft 1 lamp)	\$16.50	Not Available	per fixture
C&I_Linear Fluorescent - T12_Linear Fluorescent - PREMIUM T8 (2ft 4 lamp)	\$28.50	Not Available	per fixture
C&I_Linear Fluorescent - T12_Linear Fluorescent - PREMIUM T8 (2ft 3 lamp)	\$27.00	Not Available	per fixture
C&I_Linear Fluorescent - T12_Linear Fluorescent - PREMIUM T8 (2ft 2 lamp)	\$18.00	Not Available	per fixture
C&I_Linear Fluorescent - T12_Linear Fluorescent -	\$16.50	Not	per fixture

PREMIUM T8 (2ft 1 lamp)		Available	
C&I_Linear Fluorescent - T12_Linear Fluorescent -	\$33.00	Not	per fixture
PREMIUM T8 (HO 8 ft 1 lamp)	ć2C 00	Available	r:
C&I_Linear Fluorescent - T12_Linear Fluorescent -	\$36.00	Not	per fixture
PREMIUM T8 (HO 8 ft 2 lamp)	400.00	Available	
C&I_Linear Fluorescent - T12_Linear Fluorescent - T5	\$30.00	Not	per fixture
(1 lamp)		Available	
C&I_Linear Fluorescent - T12_Linear Fluorescent - T5	\$37.00	Not	per fixture
(2 lamp)		Available	
C&I_Linear Fluorescent - T12_Linear Fluorescent - T5	\$40.00	Not	per fixture
(3 lamp)		Available	
C&I_Linear Fluorescent - T12_Linear Fluorescent - T5	\$44.00	Not	per fixture
(4 lamp)		Available	
C&I_Linear Fluorescent - T12_Linear Fluorescent - T5	\$60.00	Not	per fixture
(HO 1 lamp)	4	Available	
C&I_Linear Fluorescent - T12_Linear Fluorescent - T5	\$70.00	Not	per fixture
(HO 2 lamp)		Available	
C&I Linear Fluorescent - T12_Linear Fluorescent - T5	\$88.00	Not	per fixture
(HO 3 lamp)		Available	·
C&I_Linear Fluorescent - T12_Linear Fluorescent - T5	\$112.00	Not	per fixture
(HO 4 lamp)		Available	•
C&I_Shell - Standard Duct Leakage_Shell - Duct	\$53.00	Available	per ton
Sealing/Repair	,		<b>,</b>
_Base Refrigeration - Standard_Humidistat (Anti-	\$40.00	Available	per contro
Sweat) Controls	7		por 00111101
_Base Refrigeration - Standard_LED Display Lighting	\$0.00	Available	per door
Base Refrigeration - Standard_Strip Curtains	\$9.80	Available	per sq ft
			door
Controls - Standard Tstat_Controls - Programmable	\$35.00	Available	Per unit
Tstat			
Copier - Standard_Power Management Enabling -	\$34.00	Available	per unit
Networked	*		I
Desktop Derived Server - Standard Power	\$0.00	Available	per unit
Supply Desktop Derived Server - 80 PLUS Power	70.00	, , , , , , , , , , , , , , , , , , , ,	por onic
Supply			
Desktop PC - Standard Power Supply_Desktop PC - 80	\$0.00	Available	per unit
PLUS Power Supply	Ψ	, transic	perame
Desktop PC - Standard_Power Management Enabling	\$15.00	Available	per unit
- Networked	Ų10.00	Available	perunt
Exit Sign - CFL_Exit Sign - LED	\$10.00	Available	per fixture
Exit Sign - Incandescent _Exit Sign - LED	\$10.00	Available	per fixture
_High Intensity Discharge - HPS_Hardwired - Ceramic	\$45.00	Available	per fixture
Metal Halide	600.00		
_High Intensity Discharge - HPS_High Bay - T5 (HO HB	\$90.00	Available	per lamp
3L)			
_High Intensity Discharge - HPS_High Bay - T5 (HO HB	\$96.00	Available	per lamp

4L)			
_High Intensity Discharge - HPS_High Bay - T5 (HO HB 6L)	\$175.00	Available	per lamp
_High Intensity Discharge - HPS_High Bay - T5 (2 fixtures - HO HB 6 lamp replacing 1,000W HID-2 for one replacement)	\$300.00	Available	per lamp
_High Intensity Discharge - HPS_High Bay - PREMIUM T8 (HB 4 ft 4L)	\$60.00	Available	per lamp
_High Intensity Discharge - HPS_High Bay - PREMIUM T8 (HB 4 ft 6L)	\$80.00	Available	per lamp
_High Intensity Discharge - HPS_High Bay - PREMIUM T8 (HB 4 ft 8L)	\$100.00	Available	per lamp
_High Intensity Discharge - HPS_High Bay - PREMIUM T8 (HB 4ft 8 Lamp replacing 1,000W HID-2 for one replacement)	\$200.00	Available	per lamp
_High Intensity Discharge - MH_Hardwired - Ceramic Metal Halide	\$45.00	Available	per fixture
_Hot Water Heater - Standard_Pipe Wrap/Insulation	\$16.00	Available	per unit
_Hot Water Heater - Standard_Tank Blanket	\$20.00	Available	per unit
_Linear Fluorescent - T12_Linear Fluorescent - PREMIUM T8 with Reflector/Delamping	\$0.00	Not Available	per lamp
_Linear Fluorescent - PREMIUM T8_Linear Fluorescent - PREMIUM T8 with Reflector/Delamping	\$0.00	Available	per lamp
_No Pre-Rinse Spray Valves_Pre-Rinse Spray Valves	\$0.00	Available	per unit
_Shell - No Duct Insulation_Shell - Duct Insulation	\$30.00	Available	per ton
_Shell - No Window Film_Shell - Window Film	\$1.00	Available	per sq (window area)
_Shell - No/Low Ceiling Insulation_Shell - Increase Ceiling Insulation	\$0.27	Available	per sq (ceiling are
C&I_Hot Water Heater - Standard_Hot Water Heater - Efficient (>.94 Efficient)	\$48.00	Available	per unit
C&I_Hot Water Heater - Standard_Hot Water Heater - Heat Pump (500 gal/day)	\$3,500.00	Available	per unit
C&I_Hot Water Heater - Standard_Hot Water Heater - Heat Pump (1000 gal/day)	\$5,000.00	Available	per unit
C&I_Hot Water Heater - Standard_Hot Water Heater - Heat Pump (1500 gal/day)	\$7,500.00	Available	per unit
C&I_Hot Water Heater - Standard_Hot Water Heater - Tankless	\$250.00	Available	per unit
C&I_Pool Pump - Standard_Pool Pump - High Efficiency	\$92.00	Available	per hp
C&I_Pool Pump - Standard_Pool Pump - VSD	\$150.00	Available	per hp
C&I_Screw In - Incandescent_Screw In - 2x Incandescent Lamps	\$0.00	Available	per fixture
C&I_Screw In - Incandescent_Screw In - CFLs	\$0.00	Available	per fixture

C&I_Screw In - Incandescent_Screw In - LEDs	\$0.00	Available	per fixture
_Base Drive - Standard Motor_Drives - EE motor	\$4.70	Available	per HP
_Beverage Machines - Standard_Beverage Machines -	\$140.00	Available	per unit
ENERGY STAR			
Beverage Machines - Standard_Beverage Machines -	\$50.00	Available	per sensor
Vending Miser  _Chiller - Water Cooled - Standard_Chiller - Water	\$25.00	Available	norton
Cooled - Efficient (< 75 Tons - FL: 0.702 kW/T ILPV:	\$25.00	Available	per ton
0.540 kW/T)			
_Chiller - Water Cooled - Standard_Chiller - Water	\$25.00	Available	per ton
Cooled - Efficient (> 75 and < 150 T - FL: 0.698 kW/T			
ILPV: 0.527 kW/T)		WILLOW WILLOW	
Chiller - Water Cooled - Standard_Chiller - Water	\$40.00	Available	per ton
Cooled - Efficient (150-300 tons - FL: 0.612 kW/T	***************************************		
ILPV: 00486 kW/T) _Chiller - Water Cooled - Standard_Chiller - Water	\$40.00	Available	per ton
Cooled - Efficient (> 300 tons - FL: 0.588 kW/T ILPV:	740.00	Available	per ton
0.441 kW/T)			
_Comp Air - Standard Efficiency_Comp Air - Replace 1-	\$10.00	Available	per HP
5 HP motor			
_Comp Air - Standard Efficiency_Comp Air - Replace 6-	\$0.00	Available	per HP
100 HP motor	Å=+0.00		
_Hot Food Holding Cabinet - Standard_Hot Food	\$640.00	Available	per unit
Holding Cabinet - ENERGY STAR  Lighting Power Density - Standard Lighting Power	\$0.00	Available	per sq f
Density - Reduced	φυ,συ	Avanubic	(floor area)
_Linear Fluorescent - T8_Linear Fluorescent -	\$0.50	Available	per lamp
Premium T8			
_Motors - Standard_Motors - Efficient	\$0.00	Available	per Lin ft o
	4.0.00		case
_Packaged AC - Air Sourced - Standard_Packaged AC -	\$40.00	Available	per ton
Air Sourced - Efficient (all sizes)  Packaged HP - Air Sourced - Standard_Packaged HP -	\$77.00	Available	per ton
Air Sourced - Efficient	\$77.00	Available	per ton
Packaged HP - Air Sourced - Standard_Packaged HP -	\$73.00	Available	per ton
Water Sourced - Efficient			
Packaged Terminal AC/HP - Standard_Packaged	\$60.00	Available	Per Unit
Terminal AC/HP - High Efficiency			
_Pumps/Fans - No VSD_Pumps/Fans - VSD (1.5 HP)	\$868.50	Available	per system
_Pumps/Fans - No VSD_Pumps/Fans - VSD (2 HP)	\$893.00	Available	per system
_Pumps/Fans - No VSD_Pumps/Fans - VSD (3 HP)	\$922.50	Available	per system
_Pumps/Fans - No VSD_Pumps/Fans - VSD (5 HP)	\$1,035.00	Available	per system
_Pumps/Fans - No VSD_Pumps/Fans - VSD (7.5 HP)	\$1,430.00	Available	per system
_Pumps/Fans - No VSD_Pumps/Fans - VSD (10 HP)	\$1,430.00	Available	per system
_Pumps/Fans - No VSD_Pumps/Fans - VSD (15 HP)	\$1,632.50	Available	per system
_Pumps/Fans - No VSD_Pumps/Fans - VSD (20 HP)	\$2,257.50	Available	per system

_Pumps/Fans - No VSD_Pumps/Fans - VSD (25 HP)	\$2,560.00	Available	per system
_Pumps/Fans - No VSD_Pumps/Fans - VSD (30 HP)	\$2,885.00	Available	per system
_Pumps/Fans - No VSD_Pumps/Fans - VSD (40 HP)	\$4,047.50	Available	per system
_Pumps/Fans - No VSD_Pumps/Fans - VSD (50 HP)	\$4,475.00	Available	per system
_Reach In Refrigerator - Standard_Reach In Refrigerator - High Efficiency (Less than 20 ft3)	\$125.00	Available	per unit
_Reach In Refrigerator - Standard_Reach In Refrigerator - High Efficiency (20-40 ft3)	\$250.00	Available	per unit
_Reach In Refrigerator - Standard_Reach In Refrigerator - High Efficiency (More than 48 ft3)	\$450.00	Available	per unit
_Reach In Freezer - Standard_Reach In Freezer - High Efficiency (Less than 20 ft3)	\$75.00	Available	per unit
_Reach In Freezer - Standard_Reach In Freezer - High Efficiency (20-40 ft3)	\$200.00	Available	per unit
_Reach In Freezer - Standard_Reach In Freezer - High Efficiency (More than 48 ft3)	\$350.00	Available	per unit
_Screw In - Incandescent_Screw In - Cold Cathodes	\$0.00	Available	per fixture
_Standard Efficiency_Fans - Replace 1-5 HP motor	\$5.50	Available	per HP
_Walk In Refrigerator/Freezer - Standard_Walk In Refrigerator/Freezer - High Efficiency	\$1,000.00	Available	per unit

These include, but are not limited to the following measures:

KCP&L-MO reserves the option to offer additional measures and alter incentive levels that are approved and pass the Total Resource Cost (TRC) test listed in Schedule KHW-4. For customer communication, eligible incentives directly paid to customer and measures will be found at www.kcpl.com

## 3. Program Goals

## Expected energy and demand savings – time horizon

The projected annual incremental savings targets during the plan period (at the meter) are listed below. This includes a CFL Net to Gross (NTG) Factor of 0.9 in Program year 1 and 0.7 in program year 2. All other measures have a NTG factor of 1.0.

Year	Program Energy Savings (kWh)	Program Demand Savings (kW)
2014	9,804,201	2,012
2015	16,419,078	3,304

## 4. Program Framework/Strategy

## Relationship to other programs

The Program is designed for C&I customers; therefore, the program has a strong relationship through promotion with the Company's other C&I demand-side management (DSM) programs, such as the Business Energy Efficient Rebate Program-Custom, Building Operator Certification (BOC) program, Demand Response Incentive, Programmable Thermostat (for small general service customers), and Business Energy Analyzer.

#### Marketing strategy

All KCP&L-MO C&I 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. The Company will apply a two-pronged approach to build awareness with end use customers (downstream) along with distributors and manufacturers (midstream). In order to promote the various Standard Energy Efficiency Measures, targeted messaging will be done to reach specific industries.

## **Business Energy Efficiency Measures Industries and Entities**

Prescriptive Motors, Pumps & VFDs Motor manufacturers and distributors;

Food Service & Refrigeration;

Restaurant associations, equipment manufacturers and distributors, grocery stores, convenience stores, gas stations;

HVAC dealers, manufacturers and distributors;

Lighting manufacturers and distributors;

Process Air compressors, injection molding manufacturers;

**ENERGY STAR Commercial Appliances;** 

Manufacturers and distributors of refrigerators, freezers, ice machines, clothes washers; and Office Computing Data centers, facility managers, schools, office managers, hospitals.

KCP&L-MO will use Energy Consultants to help promote the Program.

## **Marketing Tactics**

For the Program, KCP&L-MO will continue to develop and foster relationships with commercial professional/trade associations. Listed below are the associations that KCP&L-MO believes will be instrumental in the continued success of this Program.

## **Commercial Professional / Trade Organizations Acronym**

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 Program, KCP&L-MO has identified the following internal and external print communications as possible marketing channels:

#### **Externally Published Communications:**

- HVAC/Lighting contractor newsletters/magazines.
- Kansas City Business Journal (Book of Lists).
- · Builder/Architect magazine.

## Internally Published Communications:

- Energy Talk. This is a monthly newsletter e-mailed to Tier 1 customers from KCP&L-MO's Energy Consultants.
- The Wire. (Commercial version). This is a quarterly newsletter from KCP&L-MO that is included with a customer's bill.
- · Bill messaging.

## 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.

#### Program delivery

The Program will be implemented by KCP&L-MO with necessary resources to administer the Program. A third party 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-MO directs.

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

KCP&L-MO 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.

#### **Partners**

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

## 5. Program Beneficiaries

## Expected number of participants by customer class or subclass

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

	KCP&L-MO Annual End Use Program Measures
2014	4,197
2015	7,587
Total	11,784

## KCP&L-MO annual end use Program measures (net-free)

The Net to Gross (NTG) Factor for CFL measures is 0.9 in program year 1 and 0.7 in program year 2. All other measures remain at NTG factor of 1.0 for both years.

## 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 Program. 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.

Test Name	Market Based Test Results	Cost Based Test Results
Utility Test	4.33	4.73
TRC Test	2.25	2.46
RIM Test	0.86	0.94
RIM (Net Fuel)	1.19	1.30
Societal Test	2.88	3.15
Participant Test	2.63	2.63

Assumptions	
Utility Discount Rate (%)	6.961%
Participant Discount Rate (%)	10.00%
Electric Losses (%)	6.56%
Societal Discount Rate1 (%)	3.00%

Avoided Costs		 -
Avoided T&D (\$ / kW)	**	**
Cost-Based Proxy for Avoided	**	**
Capacity (\$ / kW Annualized)	***************************************	

Emissions Costs	\$/kWh
SOx	\$0.00001
NOx	\$0.000032
CO2	\$0.002670
Total	\$0.0027

Cost Based Avoided Electric Production	**	**
Avoided Electric Capacity	**	**
Avoided T&D Electric	**	**
Total Cost Based Avoided Costs	**	**

Market Based Avoided	**		**
Electric Production Costs			

Program Costs		
Administration Costs	**	**
Implementation / Participation Costs	**	**
Other / Miscellaneous Costs	**	**
Incentives	**	**
Total	**	**

Participant Cost (Gross)	**	**

Other Environmental Benefits,	**	**
NOx SOx		

Lost Revenue		
Gross Lost Revenue, Electric	**	**
Net Fuel Lost Revenue, Electric	**	**

## 7. Program Evaluation, Measurement and Verification Plan

Program evaluation, measurement and verification (EM&V) are key elements of 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 which will be utilized by KCP&L-MO 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 will be developed by the selected evaluation contractor(s) and will 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 cobenefits (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 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-MO 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.

Market Transformation: This is the strategic process of intervening in a market to create lasting change in market behavior by removing identified barriers or using opportunities to accelerate the adoption of all cost-effective energy efficiency as a matter of standard practice.

KCP&L-MO will retain one or more EM&V contractors to perform process and impact evaluations for its programs and assess progress of market transformation in order to avoid conflicts of interest and to insure credibility of the evaluation results, as well as comply with Commission requirements. KCP&L-MO expects to conduct EM&V of the Program at the end of the plan period.

## 8. Program Budget (Two-Year)

Although the Program is a new facet to KCP&L-MO's already established C&I Rebate Programs, KCP&L-MO does not have any start-up costs. The expected budget for the Program over the two-year period is shown below.

	Admin	Implementation	ncentives O	ther Including EM&V	Total
Year 1	**				**
Year 2	**				**
Total	**				**

## 9. Strategies to Minimize Free Riders and Maximize Spillover

The development of this Program incorporated available information from market studies, consultant studies and the California Database for Energy Efficient Resources (DEER) on program impacts of free ridership and spillover in the initial program design. At the end of the plan period, KCP&L-MO will perform an EM&V study and these results will be incorporated into the Program design. This process provides the input necessary to minimize free-ridership and maximize spillover.

	Tariff Effective Date (Expected July 2014	
Program		
Air Conditioning Upgrade Rebate	X	
Building Operator Certification	X	
Business Energy Analyzer	Х	
Business Energy Efficiency Rebates - Custom	X	
Business Energy Efficiency Rebates - Standard	X	
Home Appliance Recycling Rebate	X	
Home Energy Analyzer	X	
Home Energy Report Program – Pilot	Х	
Income-Eligible Home Energy Report Program – Pilot	Х	
Home Lighting Rebate	X	
Income-Eligible Weatherization	Х	
Programmable Thermostat	X	