BEFORE THE STATE CORPORATION COMMISSION

OF THE STATE OF KANSAS

In the Matter of the Application of Kansas City Power & Light Company for Approval of Its Demand-Side Management Portfolio Pursuant to The Kansas Energy Efficiency Investment Act ("KEEIA"), K.S.A. 66-1283.	)))))	Docket No. 16-KCPE-446-TAR

DIRECT TESTIMONY

OF

STACEY HARDEN

ON BEHALF OF

CITIZENS' UTILITY RATEPAYER BOARD

PUBLIC VERSION

******* [redacted] ***** DESIGNATES CONFIDENTIAL***

INFORMATION HAS BEEN REMOVED

AUGUST 8, 2016

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I. STATEMENT OF QUALIFICATIONS

Q. Please state your name and business address.

A. My name is Stacey Harden. My business address is 1700 SW College Ave, Topeka, Kansas 66621.

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

A. I am employed by Washburn University as the Sponsored Projects Accountant.

Q. Please describe your educational background.

A. I earned a Bachelor of Business Administration degree from Baker University in 2001. I earned a Master of Business Administration degree from Baker University in 2004.

Q. Please summarize your professional experience in the utility industry.

A. I served as a Regulatory Analyst for the Citizens' Utility Ratepayer Board from February 2008 until March 2016. Prior to joining CURB, I was the manager of a rural water district in Shawnee County, Kansas for five years.

Q. Have you previously testified before the Commission?

A. Yes. I have previously offered testimony in KCC Docket Nos. 08-WSEE-1041-RTS, 10-KGSG-421-TAR, 10-EPDE-497-TAR, 10-BHCG-639-TAR, 10-SUBW-602-TAR, 10-WSEE-775-TAR, 10-KCPE-795-TAR, 10-KCPE-415-RTS, 11-SUBW-448-RTS, 12-SUBW-359-RTS, 12-MKEE-410-RTS, 12-MKEE-491-RTS, 13-HHIW-570-RTS,14-WSEE-148-TAR, 14-ATMG-230-TAR, 15-WSEE-181-TAR, 15-KCPE-116-RTS, and

15-SPEE-519-RTS. I have also authored Report and Recommendations to the Commission in 13-HHIW-570-RTS, 14-KCPE-042-TAR, and 15-WSEE-021-TAR.

II. PURPOSE OF TESTIMONY

Q. What is the purpose of your testimony?

A. On April 6, 2016, Kansas City Power & Light Company ("KCPL" or "Company") filed an application with the Kansas Corporation Commission ("KCC" or "Commission") seeking approval of KCPL's Demand-Side Management ("DSM") Program Portfolio and Demand-Side Investment Mechanism ("DSIM") Rider filed pursuant to the Kansas Energy Efficiency Investment Act ("KEEIA").

My testimony will fall into four sections. First, I will identify certain provisions of the KEEIA relative to my testimony concerning KCPL's KEEIA filing. Second, I will outline the Commission's current policies regarding energy efficiency programs as they pertain to this application. Third, I will discuss KCPL's KEEIA application, the proposed portfolio of energy efficiency programs, and evaluate the Company's proposed DSIM Rider. Finally, I will provide recommendations for consideration by the Commission. In my evaluation of KCPL's application, I will assess whether the proposed portfolio of programs and proposed investment recovery mechanism conform to both the regulatory goals of the KEEIA and the Commission's stated policy goals for energy efficiency programs and cost recovery mechanisms.

III. INITIAL COMMENTS

Q. Do you have any initial comments regarding KCPL's KEEIA application before you begin an analysis of the application?

A. Yes. I am recommending the Commission deny KCPL's KEEIA Cycle I application as presented. I am also recommending the Commission deny KCPL's proposed cost recovery mechanism. The specific evidence and rationale supporting my recommendations will be described later in my testimony.

Initially, it is my opinion that the Commission see the forest through the trees, so to speak. KCPL is requesting approval of aggressive and costly suite of energy-efficiency programs. KCPL has already spent $36.5 million in Kansas on energy-efficiency without any obvious return of benefits to ratepayers. Now KCPL wants approval to spend another $30 million of ratepayer dollars, only this time KCPL wants approval of a mechanism that will allow it to recover sales from reduced kWh sales and an incentive to award shareholders for positive performance. These additional costs will increase the amount charged to ratepayers two-fold, while not achieving the Commission's defined goal of cost-effectiveness and mitigation of bill impacts.

In addition to the technical aspects of KCPL's application and the likely technical analysis of individual programs, the Commission should consider the appropriateness of the energy-efficiency programs being sought by KCPL. According to KCPL's own testimony in current dockets, KCPL has experienced a decline in demand after its Iatan II power plant was brought online in 2010. The reality of increased capacity coupled with declining consumer demand, does not mesh with the Company's request to charge ratepayers millions of dollars to use less energy.

Approval of the KEEIA Cycle I portfolio would unfairly and unjustly shift all risks associated with energy-efficiency to ratepayers, while awarding shareholders a financial incentive for a reduction in sales. Additionally, as I will discuss later in my testimony, KCPL reports that it will need to add additional generation within the next 11 years regardless of the Commission's approval of the KEEIA Cycle I portfolio. As detailed in my testimony and summarized above, I recommend the Commission deny KCPL's program in its entirety.

IV. KANSAS ENERGY EFFICIENCY INVESTMENT ACT

Q. In connection with your analysis of the KEEIA application filed by KCPL, have you reviewed the KEEIA?

A. Yes, I have. KEEIA is the Kansas Energy Efficiency Investment Act. KEEIA was approved by Governor Sam Brownback on April 30, 2014 and became law on July 1, 2014. As legislation, KEEIA outlines the regulatory guidance concerning the Commission's approval of approve utility-sponsored energy-efficiency programs and identifies various cost recovery mechanisms the Commission can consider for utilities that offer energy-efficiency programs.

Q. Does KEEIA define the goal of energy-efficiency programs in Kansas?

A. Yes. According to KEEIA, "(i)t is the goal of the state to promote the implementation of cost-effective demand-side programs in Kansas."

Q. Does KEEIA provide any particular or specific test for approving energy-efficiency programs?

A. No. Rather, KEEIA states that "(i)n making its decision whether or not to approve the proposed program, the commission shall determine the appropriate test for evaluating the cost-effectiveness of the demand-side program."[1]

Q. Prior to the passage of KEEIA in July 2014, did the Commission have policies in place to evaluate proposed energy-efficiency programs?

A. Yes it did. I will discuss the Commission's approved policies in the next section of my testimony.

V. COMMISSION APPROVED POLICIES

Q. Please provide a background in how the Commission's energy-efficiency policies were established.

A. In the October 10, 2007 Order closing the general investigation into energy-efficiency programs in docket number 07-GIMX-247-GIV, *In the Matter of a General Investigation Regarding Energy Efficiency Programs*, the Commission cited with approval the efforts of utilities and Kansas agencies to develop energy-efficiency measures and programs. The Commission noted its desire to work collaboratively with utilities and other entities to encourage, facilitate and guide current and future energy-efficiency programs.

In November 2007, the Commission opened two general investigation dockets, 08-GIMX-441-GIV ("441 Docket") and 08-GIMX-442-GIV ("442 Docket") to

[1] K.S.A. § 66-1283 (5)(c)

investigate cost recovery methods, to develop rules and policies and to create a regulatory framework for utility-sponsored energy-efficiency. In 2008 and 2009, the Commission issued orders in the 441 Docket and 442 Docket, establishing a general policy framework for review and evaluation of energy-efficiency programs on a uniform and consistent basis.

In November 2011, the Commission opened another general investigation docket, 12-GIMX-337-GIV ("337 Docket") in order to clarify the Commission's orders in the 441 and 442 Dockets. In its March 2013 Order in the 337 Docket, the Commission determined that the underlying principles in the 441 Docket and 442 Docket are consistent. The Commission policies and guidelines established in the 441 Docket and 442 Docket, as well as clarification provided in the 337 Docket continued to serve as the guidelines for utility-sponsored energy-efficiency programs prior to the passage of KEEIA.

Q. On which aspects of the Commission's current policies on utility-sponsored energy-efficiency programs did you focus in your review of KCPL's KEEIA application?

A. I focused on the following sections of the Commission's approved policies and guidelines:

- energy efficiency needs to produce cost-effective, firm energy savings;
- energy efficiency programs should be used as a resource to moderate bill increases that are likely to be caused as utilities build new generation, implement environmental requirements, and invest in additional assets; and

- California's Database for Energy Efficiency Resources ("DEER") should be used to determine a measure's useful life and estimated savings for at least the program's first two years until the first evaluation, measurement and verification ("EM&V").

Q. Please describe the Commission's policy that energy-efficiency programs need to produce cost-effective, firm energy savings.

A. In its June 2, 2008 Order in the 442 Docket, the Commission stated that it views energy efficiency as an additional resource that may be utilized in meeting the state's energy needs. As a resource, the Commission determined that "energy efficiency needs to produce cost-effective, firm energy savings. Energy-efficiency programs should be used to achieve both energy and demand reductions."[2] I understand this policy to require that energy-efficiency programs should produce savings that are measurable and reliable over the duration of the program.

Q. How will the Commission determine whether a proposed energy-efficiency program will produce cost-effective, firm energy savings?

A. The Commission's order in the 442 Docket places emphasis on the total resource cost test ("TRC") to evaluate whether proposed energy-efficiency programs produce cost-effective, firm energy savings.

[2] June 2, 2008, Order Setting, 08-GIMX-442-GIV, at ¶26.

Q. How does TRC test assist the Commission in determining whether energy-efficiency programs will provide cost-effective, firm energy savings?

A. The TRC test supports the Commission's policy that an energy-efficiency program must produce cost-effective, firm energy savings. The TRC test is designed to measure the cost-effectiveness of a program to the utility as a whole and indicates whether a program is beneficial to the utility and to all of the utility's customers – whether or not a customer participates in the offered energy-efficiency program.

In addition to the Commission's policy that an energy-efficiency program produce cost-effective, firm energy savings, the Commission also determined that reducing or postponing future construction of electric generation is a primary goal which may have benefits for all of a utility's customers. An energy-efficiency program with a TRC test score greater than 1.0 reflects the benefit to implementing an energy-efficiency program throughout a utility's territory. In other words, if an energy-efficiency program can produce a TRC score greater than 1.0, it means each dollar spent on the energy-efficiency program allows the utility to avoid more than one dollar in future construction expenditures.

Q. Did the Commission indicate how it would regard energy-efficiency programs that do not achieve a TRC score greater than 1.0?

A. Yes. The Commission stated that it is "unlikely a program that fails the TRC test will be approved by the Commission."[3]

[3] April 13, 2009, Order Following Collaborative, 08-GIMX-442-GIV, at ¶ 25.

Q. Why is it important that energy-efficiency programs be used as a resource to moderate bill increases that are likely to be caused as utilities build new generation, implement environmental requirements, and invest in additional assets?

A. Utilities have several resources available to them for meeting future energy needs. Additionally, the mitigation of customer bill increases is a primary goal of energy-efficiency. As such, the Commission determined that utilities can use "energy efficiency programs as a resource that can moderate the inevitable bill increases caused by the building of new generation, implement environmental requirements and invest in additional transmission investment."[4]

Q. Which benefit-cost test supports the Commission's policy that an energy-efficiency program should moderate bill increases that are likely to be caused as utilities build new generation, implement environmental requirements, and invest in additional assets?

A. The ratepayer impact method ("RIM") test supports the Commission's policy to mitigate customer bill increases as a primary goal of energy-efficiency programs. In general, a program with a RIM test score below 1.0 will put upward pressure on rates, while a program that can achieve a RIM test score greater than 1.0 will either have no impact or will put downward pressure on rates.

[4] June 2, 2008, Order Setting, 08-GIMX-442-GIV, at ¶25.

Q. Do the Commission's policies place emphasis on the RIM test?

A. Yes. The Commission emphasized that the use of the "RIM and TRC tests is appropriate in light of Kansas realities and Commission goals."[5] The Commission stated that an energy-efficiency program that scores less than 1.0 on the RIM test "may still be considered by the Commission for approval, depending on the degree of RIM test failure, (and) its performance on the other tests …"[6]

Q. Are energy-efficiency programs required to pass both the TRC and RIM tests?

A. No.

Q. Please explain.

A. Based upon the Commission's guidelines in the 442 Docket, I would expect that the Commission may consider approving a program that has a slight RIM failure but can achieve a high TRC score. The RIM test is an indicator of how much rates will increase with costs of the program, whereas the TRC test is a measure of savings to the system overall. In order to protect the ratepayer, it is imperative to minimize any rate increase caused by offering energy-efficiency programs. A slight RIM failure with a significant TRC indicates that rates may go up slightly, but there will be a large overall benefit. However, a poor RIM score coupled with a low TRC indicates that rates will increase significantly with very little overall benefit to the system. Thus, CURB recommends that the Commission disapprove of any proposed energy-efficiency program that provides little overall benefit to the ratepayer and the utility while increasing rates significantly.

[5] June 2, 2008, Order Setting, 08-GIMX-442-GIV, at ¶ 39, 40.
[6] April 13, 2009, Order Following Collaborative, 08-GIMX-442-GIV, at ¶23.

Q. Why should the Database for Energy Efficient Resources ("DEER") be used to determine a measure's useful life and estimated savings for at least the program's first two years until the first EM&V review?

A. DEER is a California Energy Commission and California Public Utilities Commission sponsored database designed to provide well-documented estimates of energy and peak demand savings values, measure costs, and effective useful life all with one data source. When the Commission issued its order in the 442 Docket, a Kansas-specific database of an energy-efficiency measure's estimated savings or effective useful life had not yet been developed. In order to accurately estimate the potential savings measures included in an energy-efficiency program, the Commission determined that the best solution is to use the widely recognized DEER values for at least a program's first two years until the first EM&V review.[7]

Q. Since the Commission's Order in the 442 Docket, has a Kansas-specific database of energy-efficiency measures been developed?

A. No. Unfortunately, evaluation of energy-efficiency programs in Kansas – including programs offered by KCPL – has been limited. Without adequate evaluations to create a Kansas specific database, I would not agree with KCPL that DEER values should be displaced at this time. Therefore, the Commission's policy to use DEER values for energy-efficiency measures is still applicable for all energy-efficiency applications.

[7] April 13, 2009, Order Following Collaborative, 08-GIMX-442-GIV, at ¶88.

VI. KEEIA APPLICATION

A. Portfolio of Programs

Q. Please summarize KCPL's proposed portfolio of programs.

A. KCPL is proposing a suite of fourteen energy-efficiency programs that will be offered for a period of three years. The chart below shows the programs and the programs' cumulative three-year budget. Please note that KCPL has designated each program budget as confidential.

	2017-2019 Proposed Budget
Residential Programs	****CONFIDENTIAL****
Home Lighting Rebate	[redacted]
Home Energy Report	[redacted]
Online Home Energy Audit	[redacted]
Whole House Efficiency	[redacted]
Income -Eligible Multi-Family	[redacted]
Income -Eligible Weatherization	[redacted]
Residential Programmable Thermostat	[redacted]
Business Programs	[redacted]
Business Energy Efficiency Rebate – Standard	[redacted]
Business Energy Efficiency Rebate - Custom	[redacted]
Strategic Energy Management	[redacted]
Block Building	[redacted]
Online Business Energy Audit	[redacted]
Small Business Direct Install	[redacted]
Demand Response Incentive	[redacted]
Residential Total:	[redacted]
Business Total:	[redacted]
Research & Pilot:	[redacted]
Total Portfolio Program Cost:	**$29,696,221**

Q. Does your testimony today provide an analysis of each individual program included in KCPL's KEEIA Application?

A. No. My testimony today will reflect KCPL's application on a portfolio level. However, I

will offer limited specific comments in response to KCPL's proposed residential air-conditioner cycling program. If I do not offer comments or analysis regarding a specific program that is proposed in KCPL's KEEIA Application, it does not signal my approval of that program. Moreover, I reserve the right to respond to other parties' statements in my cross-answering testimony.

Q. What specific concerns do you have regarding KCPL's proposed residential air conditioner cycling program?

A. KCPL has a current approved air conditioner cycling program in Kansas. This program was formerly called Energy Optimizer. The program in place today, remains functional, can still be utilized by KCPL to provide energy savings, and has already been paid for by Kansas ratepayers.

Q, Since KCPL's residential air conditioning cycling program was approved in Kansas, how many times has KCPL utilized the program?

A. Through July 31, 2016, KCPL has conducted 40 cycling events since its residential air conditioner cycling program was approved in 2006. Because KCPL does not distinguish between Missouri and Kansas cycling events, it is my presumption that these 40 cycling events were conducted for both Kansas and Missouri participants.[8]

[8] KCPL response to CURB Data Request 48.

Q. How much does KCPL estimate it will spend on its air conditioner cycling program as part of its KEEIA portfolio of programs?

A. The estimated budget of program costs for the residential air conditioner cycling program is **[redacted]** for three years. KCPL indicates that the KEEIA Programmable Thermostat program plan is to replace all the existing Energy Optimizer program thermostats over the next three years.[9]

Q. Can KCPL continue to cycle the air conditioners using the thermostats provided to participants in the Energy Optimizer program?

A. Yes.

Q. At what point will KCPL no longer have the technical capabilities to cycle the Energy Optimizer program?

A. According to the Company's response to CURB Data Request 49, KCPL is unsure when it will no longer have the ability to cycle the existing thermostats. KCPL's response states that "(a)t some point the vendor may decide to stop offering the communication services to the existing thermostats in the program, which would render them unable to cycle as part of the Programmable Thermostat program."

[9] KCPL response to CURB Data Request 48.

Q. Based upon KCPL's response, is KCPL requesting ratepayers pay **[redacted] over the next three years for a program that still works and ratepayers have already paid for?**

A. Yes.

Q. Based on cost alone, do you recommend the Commission approve KCPL's proposed residential air conditioner cycling program?

A. No I do not. KCPL's proposed program will charge Kansas ratepayers an additional **[redacted]** to replace thermostats that are still functioning and can be used by KCPL during cycling events.

B. Cost Effectiveness

Q. Earlier in your testimony you stated the goal of KEEIA is to support cost-effective demand-side programs in Kansas. Based upon your review of KCPL's application, will KCPL's KEEIA offerings result in cost-effective demand-side programs in Kansas?

A. No. Based upon my review of KCPL's application and discovery responses provided by the Company, it is my opinion that KCPL's application overstates the cost-effectiveness of its proposed programs.

Q. What are the results of the TRC and RIM tests provided in KCPL's application?

A. According to Table 3-7 of the application, on a portfolio level, KCPL's proposed suite of energy-efficiency programs achieve a TRC score of 1.79 and a RIM score of 0.88.

Q. Why is it your opinion that the TRC and RIM values provided in the Company's application are overstated?

A. For two reasons: (1) KCPL's estimate of avoided costs is inflated, and (2) KCPL utilized a Technical Resource Manual ("TRM") to estimate the useful life and savings for energy-efficiency measures instead of DEER standard values.

Q. What value did KCPL assign to avoided capacity in its benefit-cost tests?

A. KCPL used **[redacted]** per kW as its avoided capacity costs in its benefit-cost tests. KCPL's model escalates the **[redacted]** per kW annually.[10]

Q. Where did KCPL's **[redacted] per kW come from?**

A. The **[redacted]** per kW was calculated as the sum of **[redacted]** from generation capacity, **[redacted]** from transmission and distribution capacity, **[redacted]** from firm gas cost. And **[redacted]** from fixed operations and maintenance costs.[11] The largest component of KCPL's avoided cost comes from avoided generation capacity. According to KCPL's response to Staff Data Request 25, the avoided generation capacity cost was based upon a proprietary cost estimate for combustion turbine technology that was developed with the assistance of a local engineering firm.[12]

[10] KCPL response to Staff Data Request 4.
[11] KCPL response to Staff Data Request 10.
[12] KCPL response to Staff Data Request 25.

Q. Did KCPL provide any evidence supporting the avoided generation capacity cost estimate that was developed with the assistance of a local engineering firm?

A. No, it did not.

Q. Without evidence supporting KCPL's estimate of avoided costs, in your opinion is KCPL's ** [redacted] ** per kW is a reasonable value?

A. No. KCPL's use of ** [redacted] ** per kW is the highest avoided cost provided by KCPL in support of an energy-efficiency program. It varies greatly from the ** [redacted] ** per kW avoided cost estimate utilized by KCPL in Docket No. 10-KCPE-795-TAR ("795 Docket"), and even further from the avoided cost estimate of ** [redacted] ** per kW that was utilized by KCPL in Docket No. 14-KCPE-042-TAR ("042 Docket"). KCPL's current estimate of avoided costs is 20% higher than it was in the 795 Docket and 482% higher than the estimate provided just two years ago in the 042 Docket.

Q. If KCPL's KEEIA application used the ** [redacted] ** per kW of avoided cost, as was utilized by KCPL in the 042 Docket, what are the results of the TRC and RIM?

A. According to KCPL's response to CURB Data Request No. 47, if KCPL uses ** [redacted] ** per kW as its avoided costs, the portfolio TRC and RIM drop to 0.96 and 0.47, respectively. Considering neither TRC nor RIM achieve a benefit-cost result of greater than 1.0, based upon the Commission's previous orders, I would not expect the Commission to approve the proposed portfolio of programs.

Q. Setting aside your concern regarding KCPL's fluctuating avoided cost levels, is there another reason that the ** [redacted] ** per kW avoided capacity cost used by KCPL in its application is overstated?

A. Yes. Setting aside my concerns regarding the unreasonable variance in the value of avoided costs used by KCPL since 2010, it is my opinion that the use of ** [redacted] ** per kW is overstated because it does not reflect the true value of avoided or delaying the construction of new generation equipment.

Q. Can you provide a hypothetical example to better illustrate your conclusion that KCPL's avoided costs are overstated?

A. Yes. Hypothetically speaking, if a public utility determines that it will become capacity constrained in eight years, the utility must make a decision whether to construct additional generation or actively engage its customers in energy-efficiency programs that will curb demand enough that the utility can avoid the construction of a new generating facility. If the utility can achieve enough of a demand reduction from energy-efficiency programs, then the utility has avoided the cost of constructing a new generation facility. The cost of the generation facility, calculated on a per kW basis, represents the costs avoided by successful implementation of energy-efficiency programs.

Q. Is KCPL capacity constrained?

A. No. In fact, based upon recent testimony provided by KCPL employee Mr. Charles A. Caisley in Docket 16-KCPE-160-MIS ("160 Docket"), Mr. Caisley testifies that over the

past eight years, demand for electricity is "flat, or even overall declining"[13] and has "significantly softened."[14]

Q. In addition to Mr. Caisley's testimony, is there evidence that KCPL has experienced a decline in demand?

A. Yes. In the 042 Docket, KCPL reported that its MPower program – a demand response program for commercial customers with peak loads greater than 200kW – was discontinued for new participants. This discontinuation was a result of lower than anticipated energy demand, which according to KCPL was due to an economic downturn, and the start-up of KCPL's Iatan 2 power plant in August 2010.[15]

Q. If the Commission approves KCPL's portfolio of programs as presented in its application, will KCPL need to add new generation to its system?

A. Yes. According to the Company's response to CURB Data Request No. 39, if the Commission approves the DSM programs as presented, there will be a need for a 207 MW combustion turbine in 2027 and a second 207 MW combustion turbine in 2033.

[13] Direct Testimony of Charles A. Caisley, KCC Docket No. 16-KCPE-160-MIS, February 16, 2016, at page 15.
[14] Direct Testimony of Charles A. Caisley, KCC Docket No. 16-KCPE-160-MIS, February 16, 2016, at page 27.
[15] *Amendment to the Application of Kansas City Power & Light Company for Approval to Extend Its Demand-Side Management Programs*, Docket No. 14-KCPE-042-TAR, Attachment 5, page 2.

Q. Alternatively, if the Commission rejects KCPL's proposed portfolio of programs, when will KCPL need to add new generation to its system?

A. Yes. According to the Company's response to CURB Data Request No. 40, if there are no KCPL-Kansas DSM programs implemented in 2017 there will be a need for a 207 MW combustion turbine in 2024 and a second 207 MW combustion turbine in 2033.

Q. Is ** [redacted] ** per kW the appropriate value of delaying new generation for three years, seven years in the future?

A. No. KCPL's use of ** [redacted] ** per kW of avoided costs assumes that customers will benefit from avoiding the construction cost entirely. As I have previously testified, KCPL's portfolio of programs will only delay the need for construction of a new plant by three years. Therefore, the benefit to consumers is simply the time value of money gained from delaying the construction of a new plant from 2024 to 2027. If we assume the construction of a new combustion turbine is $120 million dollars in 2024 or $200 million dollars in 2027, the only benefit to consumers is the time value of moving a $120 million expenditure from 2024 to 2027.

Q. Do you have other concerns regarding KCPL's use of avoided costs in this proceeding?

A. Yes. In the 795 Docket, KCPL reported that without Commission approval of a robust set of energy-efficiency programs, KCPL would become capacity constrained in 2021 and would consider adding additional generation capacity in 2023.[16] KCPL ultimately

[16] October 15, 2010, Direct Testimony of Stacey Harden, KCC Docket No. 10-KCPE-795-TAR, at page 10.

withdrew its application in the 795 Docket, so the Commission was never given the opportunity to rule on the proposed programs.

My concern about KCPL's estimate of avoided costs in this proceeding is that since it withdrew its application in the 795 Docket, KCPL has expanded its DSM offering in Missouri, both through KCPL-MO and its GMO operations, yet the timeline for adding new generation has not significantly changed. According to the Company's application, for the entirety of its DSM commitment, KCPL has invested "$71.3 million in GMO and $94.2 million in KCP&L-MO during its [Missouri Energy Efficiency Investment Act] MEEIA Cycle I."[17]

Despite the extended commitment of millions of dollars for the energy-efficiency program across the border in Missouri, KCPL's estimate of when it will need to add additional generation moved just one year – from 2023 to 2024.

Q. What is the impact of KCPL's participation in MEEIA?

A. According to KCPL's response to CURB Data Request 56, if KCPL's Kansas energy-efficiency portfolio (as proposed in this application) is extended 20 years and KCPL's Missouri participation in MEEIA is halted, KCPL would need to construct a 207 MW combustion turbine in 2024 and add another in 2032.

[17] Application, at page 3-1.

Q. Based upon KCPL's data request responses, is KCPL planning to construct a new combustion turbine, regardless of approval of its KEEIA application?

A. Yes. KCPL's responses to CURB Data Requests 39, 40, and 56 all point to the construction of a combustion turbine sometime from 2024-2027. KCPL's participation in KEEIA and MEEIA does not appear to change the schedule for this addition.

C. DEER

Q. Did KCPL comply with the Commission's 442 Order by utilizing DEER values to estimate a measure's useful life and savings?

A. No, it did not. KCPL used a Technical Resource Manual ("TRM") to define the useful life and estimated savings for energy-efficiency measures included in its application.

Q. Does KCPL's TRM use the same values as DEER?

A. No, it does not. In KCPL's response to Staff Data Request 5, KCPL provided a spreadsheet that reports both DEER values and the values used with its TRM. There is a wide variance between the DEER standard values and the TRM values used in KCPL's benefit-cost calculations.

Q. Please provide some specific examples of measures included in KCPL's application and the variance of estimates between DEER and KCPL's TRM.

A. Screw-in LED lightbulbs are a measure offered to residential customers in KCPL's proposed Home Lighting Rebate.

Screw In LEDs	KCPL TRM	DEER
Measure Life (years)	20	16
Incremental Cost	$ 13.21	$ 16.65
Annual Gross Savings per Unit (kWh)	31.7	11.5
Gross Demand Reduction per Unit (kW)	0.003	0.001

A Heat Pump SEER 16 is provided as a measure to KCPL residential customers in the proposed Whole House Efficiency program.

Heat Pump SEER 16	KCPL TRM	DEER
Measure Life (years)	18	15
Incremental Cost	$ 304.61	$ 411.00
Annual Gross Savings per Unit (kWh)	233.9	163
Gross Demand Reduction per Unit (kW)	0.054	0.022

A Directional LED Bulb (<15W) is provided as a measure to KCPL C&I customers in the proposed Small Business Direct Install program.

Directional LED Bulb (<15W)	KCPL TRM	DEER
Measure Life (years)	11	7
Incremental Cost	$ 18.00	$ 21.31
Annual Gross Savings per Unit (kWh)	143.7	78.5
Gross Demand Reduction per Unit (kW)	0.029	0.018

Q. Based on your review of the Company's response to Staff Data Request 5, does KCPL's TRM provide estimates similar to the estimates provided in DEER?

A. No. Based on my review of the Company's response to Staff Data Request 5, it appears that KCPL's TRM generally overstates the benefits of measures, while at the same time understating the incremental cost of measures.

Q. What is the impact of the variance between DEER values and TRM values on the reported TRC and RIM values?

A. I can't define what the results of TRC and RIM would be if KCPL utilized DEER standard values instead of its TRM. However, because benefit-cost tests like TRC and RIM are calculated using a benefit divided by cost formula, it is reasonable to presume that if benefits are overstated and costs are understated, the calculated result will be inflated.

Q. Did you ask KCPL to utilize DEER standard values to create new benefit-cost test results so that the variance between DEER and TRM could be better evaluated?

A. Yes. In CURB DR 57, I asked KCPL to run a simulation through its DSMore model, using the DEER standard values, instead of the KCPL selected TRM values. KCPL refused to answer this data request.

Q. Is KCPL's refusal to run the benefit-cost test results using DEER standard values instead of the TRM acceptable?

A. No it is not. The Commission's Order in the 442 Docket regarding the use of DEER standard values was not negated with the passage of KEEIA. The Commission's Order states that "DEER energy savings estimates should be used until the first EM&V review two years after the project is complete …If energy savings estimates are not available from DEER, a utility may propose another estimate with supporting documentation. Of

course, if there is agreement among interested parties, including Staff, that a different energy estimate is more accurate, the Commission will consider those numbers."[18]

Q. In your opinion, should KCPL have provided the Commission the results of benefit-cost test results using DEER and the TRM?

A. Yes. The Commission's Order in the 442 Docket indicates that it is the decision of the Commission whether estimates used from a source other than DEER should be used in benefit-cost tests. KCPL's refusal to supply the Commission with DEER estimates takes away the Commission's ability to scrutinize both DEER and TRM estimates to determine which makes the most sense for energy-efficiency programs in Kansas.

Q. Do KCPL's calculations include the Commission-approved net-to-gross ("NTG") ratio?

A. No. In its calculations, KCP&L uses a NTG of 1.0. This is contrary to the Commission's policy that DEER values should be used, if they are available, for NTG. DEER NTG values are indeed available, yet KCPL has chosen to ignore the Commission's policy in these regards. Moreover, KCPL insists that NTG values also reflect participant and non-participant spillover, even though the Commission's policies specify that, at least temporarily, NTG should only reflect free ridership. KCPL's use of NTG is contrary to the Commission's policy and fails to reflect actual utilization of the KEEIA programs by KCPL participating customers. In order for its application to be approved, KCPL should be required to follow the Commission's policies which are consistent with the KEEIA,

[18] April 13, 2009, Order Following Collaborative, 08-GIMX-442-GIV, at ¶88-89.

inasmuch as those policies are the product of considerable study and are proven to be in the public interest.

VII. REQUESTED VARIANCES

Q. Please identify the variance requested by KCPL in its KEEIA application.

A. KCPL has requested three specific variances from the Commission's requirements in conjunction with its KEEIA filing relating to budget variances, EM&V, and the inclusion of labor costs. Additionally, KCPL request approval of any additional waiver or variance needed to allow approval of the terms of KCPL's KEEIA proposal.

A. Request for Budget Variance

Q. What is KCPL's request to waive the Commission's requirements for budget variances?

A. KCPL is requesting Commission approval for a waiver of two requirements relating to energy-efficiency program budgets. The first is the Commission requirement that a utility provide five-year program budgets for its requested energy-efficiency programs. The second is the Commission's requirement that a utility may flex an individual program's budget by up to 10%. If the program required a budget modification of greater than 10%, the utility must seek Commission approval. KCPL is requesting the Commission waive the requirement on a program level, and instead apply the 10% variance on a portfolio level.

Q. Do you recommend the Commission approve KCPL's waivers regarding program budgets?

A. I recommend the Commission approve KCPL's request to submit three-year program budgets. However, I do not recommend the Commission grant KCPL's request to change the 10% budget variance from a program to a portfolio level.

Q. Why should the Commission deny KCPL's request to receive a 10% portfolio budget variance?

A. KCPL's request essentially results in no Commission oversight over program limitation. The overall portfolio budget is approximately $30 million. By providing KCPL the ability to adjust program budgets on a portfolio basis, the Commission is essentially allowing KCPL to adjust all programs so long as the $3 million overall portfolio limit is not violated. If granted such a waiver, KCPL could almost completely disregard the budget in any one particular program and place substantially much more budget in another program and still remain within 10% portfolio limitation. It is my opinion that a 10% variance on a program level (without needing to obtain Commission approval) gives KCPL enough flexibility to adjust each program to account for changes in costs and benefits over the three years for each program.

B. Evaluation, Measurement and Verification

Q. What variance is KCPL requesting for the evaluation, measurement and verification of its KEEIA portfolio?

A. KCPL is requesting a variance of the Commission orders relating to EM&V in several dockets.

Q. Has KCPL proposed an EM&V plan?

A. Yes. KCPL's KEEIA filing includes an outline of planned evaluation, measurement and verification (EM&V).

Q. Please describe KCPL's EM&V plan.

A. KCPL has requested Commission approval to allow the company Navigant to conduct its EM&V. According to its application, Navigant would conduct the first KEEIA EM&V eighteen (18) months after implementation of its KEEIA program.

Q. Is KCPL's request to use Navigant in accordance with previous Commission policies regarding EM&V of energy-efficiency programs?

A. No, it is not. The Commission's Order in the 442 Docket specified that EM&V review of a program should be conducted two years after program implementation with six months given for the completion of review. Additionally, the Commission also stated that third party EM&V providers shall be selected through a collaborative Request for Proposal (RFP) process, and must be approved by the Commission. KCP&L's request to use Navigant ignores these two very important aspects of the EM&V process.

Q. Why is the use of an independent third-party evaluator important in this application?

A. The use of an independent third-party evaluator is important in KCPL's KEEIA application in part due to KCPL's request to recover sales lost and a performance incentive (referred to by KCPL as Earnings Opportunity) due to successful implementation of its programs. KCPL's KEEIA application estimates the proposed energy-efficiency programs will cost Kansas ratepayers $29.6 million in actual program costs, $20 million in lost margins, and potentially another $12 million incentive to KCPL shareholders through the proposed Earnings Opportunity. Further, as I will detail later in my testimony, KCPL is suggesting that program costs and lost margins be collected upfront from ratepayers, based upon estimates. Without a truly independent third-party evaluator to verify the actual performance of KCPL's KEEIA programs, ratepayers could potentially be charged over $30 million for benefits that were truly recognized.

Q. Should the Commission approve KCPL's request to use Navigant to conduct an independent, third-party EM&V?

A. No it should not. Navigant provided the initial program evaluation of the KEEIA filing. KCP&L did not go through any Request for Proposal (RFP) process as contemplated in the 442 Docket or as outlined in Docket 10-GIMX-013-GIV ("013 Docket"). Further, KCPL did not seek approval from any other party to this proceeding before electing to use Navigant as its independent, third-party evaluator.

Q. What is you recommendation regarding KCPL's EM&V plan?

A. It is my recommendation that the Commission's directions in the 442 Docket and 013 Docket concerning EM&V be followed. It is my opinion that Navigant, which provided the potential study relied upon by KCPL in the formation of its KEEIA filling, should not be considered the Commission-required independent third-party evaluator. Failure to appoint an independent third-party evaluator will inhibit the Commission's ability to provide effective oversight of KCP&L's KEEIA programs and could cost Kansas ratepayers millions of dollars.

C. Inclusion of Labor Costs

Q. Please explain KCPL's request for a Commission waiver to permit the collection of incremental labor costs through its proposed Demand Side Investment Mechanism ("DSIM").

A. KCPL has requested that it be allowed to recover internal labor costs in its proposed DSIM. While the Commission's previously-approved energy-efficiency policies do not address the inclusion of internal labor costs, the Commission approved Staff's recommendation in Docket 10-KCPE-636-TAR to remove internal labor costs from KCPL's energy-efficiency rider.

Q. Should the Commission approve KCPL's request?

A. I am not comfortable recommending that the Commission approve KCPL's request to recover internal labor costs through a rider. Isolating a specific cost, like payroll and associated benefits which is typically recovered through base rates, and shifting that cost

to a rider increases the possibility that the single cost item may be recovered both through base rates and through a rider.

Q. Can you provide an example of how internal labor costs could be over recovered if the costs are included in the proposed DSIM?

A. KCPL's KEEIA application presented six current KCPL employees as witnesses. Each of these six current KCPL employees has job duties relating to energy-efficiency. For illustrative purposes, I will use KCPL's Director of Energy Solutions, Ms. Kim Winslow, as an example. According to Appendix F of the Company's application, Ms. Winslow's responsibilities include providing leadership and direction to the Customer Solutions, Regulated Products and Services, and other KCPL departments. Ms. Winslow's salary, along with employee benefit costs are recovered through KCPL base rates. If, after implementation of KCPL's proposed demand-side programs, Ms. Winslow began charging a larger percentage of her time towards KCPL's KEEIA Cycle I, a portion of Ms. Winslow's salary may be recovered through the rider while still being collected through base rates.

Q. Are you testifying that KCPL should not be allowed to recover incremental labor costs (including associated indirect benefit costs) through the proposed DSIM rider?

A. I'm not saying the costs should be excluded, but I'm also not testifying that the costs should be included. My recommendation to the Commission is that if the Commission determines that it is appropriate to allow incremental labor costs to be included in the proposed DSIM, then the Commission must also establish clear guidelines and measures

that ensure the included labor costs are solely related to the demand side management programs and do not reflect any general allocations that could include costs already being recovered in base rates.

VIII. COST RECOVERY

Q. What are the costs associated with KCPL's portfolio of KEEIA programs?

A. KCPL's proposed portfolio of KEEIA programs includes three components: program costs, a throughput disincentive ("TD"), and an earnings opportunity ("EO") award. Under the Company's proposal, program costs and the TD would be recovered using forecasts and estimates, while the EO Award would be recovered over a two-year period following completion of the initial three-year KEEIA program cycle.

According to the Company's Filing, "(a)ctual program costs will include the incremental cost of planning, developing, implementing, monitoring, and evaluating demand-side programs."[19] Program costs will also include indirect costs and general administrative costs, including applicable labor loadings. Indirect costs and overheads will include employer payroll taxes, medical, dental and other benefit costs, pension costs and other post-employment benefit costs.[20] The Company will track KEEIA Program costs through its current financial accounting system. KCP&L estimates that KEEIA Program Costs will total $29.7 million over the three year life of the initial program. The Company anticipates that labor costs charged to the program would reflect employees that are dedicated to the program or direct charges from employees who may work on other activities. According to the response to CURB-7, "[n]one of the direct labor costs

[19] KEEIA Cycle 1 2017-2019 Filing, page 4-16.
[20] Response to CURB-8.

would be the result of systematic allocation of labor costs between DSM programs and activities recovered in base rates." Approximately 8% of the Company's projected program costs are internal labor costs.[21]

In addition, the Company is seeking to recover $20 million of a TD, which "represents the financial disincentive posed on the utility for each kWh saved as a result of successful implementation of EE...."[22] The TD is intended to make shareholders "whole" for margins lost as a result of the KEEIA Program.

Finally, the EO Award is an additional incentive to KCP&L shareholders for the Company's implementation of the KEEIA Program. The Company is seeking to recover up to $12.0 million in additional margin associated with successful implementation. The EO would be based on actual performance of the program. The "target" for the EO is $8.5 million. Under the Company's proposal, the EO will be adjusted based on the actual demand and energy savings as determined by the evaluator. The EO cannot go below $0 or above $12.0 million.

A. DSIM

Q. How does the Company propose to recover these three cost components?

A. KCP&L proposes to implement a new rate rider, the Demand Side Investment Mechanism ("DSIM"), effective January 1 2017. The initial DSIM would be based on projected program costs and the forecasted, estimated TD, and would be recovered on a contemporaneous basis. The Company proposes a semi-annual true-up of revenues received pursuant to the DSIM and actual program costs and the estimated TD. The true-

[21] Response to CURB-9.
[22] Id., page 4-14.

up would reflect the actual program costs incurred by KCPL as well as the TD, based on the actual type and number of measures installed. Thus, each measure would have an assumed throughput loss factor. The Company proposes that the over-recoveries and under-recoveries related to program costs and the TD accrue carrying charges at the short-term borrowing rate.

The Company is proposing that the proposed EO Award would be recovered over a two-year period after completion of the 2017-2019 cycle and after the program results are formally evaluated. The EO target of $8.5 million would be adjusted, based on the actual results of the evaluation of energy savings resulting from the measures that were installed. The maximum EO that the Company could receive would be $12.0 million and the EO could not go below $0. KCP&L proposes to recover carrying costs on the unamortized balance of the EO during the two year collection period at the short-term borrowing rate.

KCP&L proposes that the DSIM be recovered through an energy charge rider on a dollar per kWh basis. In addition to costs for the KEEIA Program, KCP&L is also proposing to recover costs that have been incurred and deferred pursuant to the Company's current Energy Efficiency ("EE") Rider. The EE Rider was established in November 2007 in Docket No. 07-KCPE-905-RTS. Due to the decreasing amount of actual program costs, $230,971.72 in actual costs recoverable through the rider were deferred in 2014, 2015, and 2016.[23]

[23] March 30, 2016, KCC Docket No. 16-KCPE-439-TAR, Application, at ¶4.

Q. **Does KCP&L plan to file any base rate cases over the 2017-2019 period?**

A. Yes, it does. KCP&L proposes to adjust the TD if and when it files a base rate case. In each base rate case, the Company's pro forma level of sales is reset and utility rates are adjusted accordingly. Thus, when new rates are established, these new rates would reflect any reduction in sales that occurred as a result of the KEEIA Program. Since the TD is intended to compensate the Company for reductions in sales, it will be necessary to adjust the TD once any loss of sales are reflected in base rates. Therefore, the Company is proposing to adjust the TD in each base rate to reflect the fact that base rates will reflect lower sales. While I understand that the Company's projection is subject to change, for illustrative purposes KCP&L assumed that it would file a base rate case using a test year of October 2016 through September 2017, with rates effective November 1, 2018.

Q. What is your recommendation regarding the proposed cost recovery mechanism?

A. Since I am recommending that KCPL's portfolio of programs be rejected by the Commission, then there is no need for the Commission to evaluate the proposed cost recovery mechanism. Evaluation of a cost recovery mechanism is only necessary if, in spite of my recommendation, the Commission approves KCPL's proposed demand-side programs or some modified version of the proposed programs.

Q. If, in spite of your recommendation, the Commission does approve either KCPL's proposed programs or some modified version of the programs, should it also adopt a cost recovery mechanism similar to the one proposed by KCP&L?

A. No, it should not. The Company's proposed cost recovery mechanism shifts the risk of recovery from ratepayers to shareholders and provides excessive rewards to shareholders, and should be rejected by the Commission. If the Commission authorizes KCPL to implement its proposed demand-side programs or some modification of the programs, then it is my recommendation that the Commission should limit cost recovery to actual program costs and reject KCP&L's proposal to recover forecasted program and TD costs.

Q. KCPL's application suggests that its current cost recovery mechanism does not allow for timely recovery of energy-efficiency expenditures and that the proposed DSIM is necessary for KCPL to recover its expenses contemporaneously. Do you agree with KCPL's assertions?

A. No I do not. First, KCPL's current energy-efficiency rider ("EER") was established by the Commission in 2007. A year later, the Commission's Order in the 441 Docket established that a rider offers nearly contemporaneous recovery or program costs for utilities. Using the Commission-approved rider, which provides nearly contemporaneous cost recovery, KCPL has recovered $36.5 million from Kansas ratepayers.

Second, the Commission expressed its opinion that a rider "be implemented in a manner that maintains the Commission's responsibility to review costs for prudence."[24] The Commission further explained that "a rider, due to the relative speed of cost

[24] November 14, 2008, Docket No. 08-GIMX-441-GIV, at ¶31 and 32.

recovery, the greater certainty of cost recovery, and the absences of regulatory lag, provides an advantage over traditional rate case recovery of costs for utilities."[25]

Q. Does the passage of KEEIA require the Commission to amend its policy to allow nearly contemporaneous cost recover to utilities through a rider?

A. No, it does not. KEEIA simply requires the Commission to allow the utility "timely" cost recovery. Based upon the Commission's Order in the 441 Docket, it is my opinion that "nearly contemporaneous" recovery of prudent program costs is timely and thereby in compliance with KEEIA requirements.

Q. What should be the guiding principle for the Commission in evaluating any cost recovery mechanism?

A. In my opinion, the guiding principle of the Commission should be to put cost recovery of demand side management programs on the same basis as supply side programs. Thus, in each case, the Commission should ask itself how costs would be recovered under the traditional utility framework and, to the greatest extent possible, it should duplicate that mechanism for demand side management programs.

Under traditional ratemaking, investors are entitled to the opportunity to earn a reasonable return on the investment that they made related to the provision of safe and reliable utility service. This includes a return on the investment made by both debt holders (i.e., interest expense) and shareholders. Investors are also entitled to the return of their investment through annual depreciation expense. In addition to a return on and of

[25] *Id.*

investment, utility rates also include recovery of operating expenses and taxes, including income taxes on shareholder return. When evaluating cost recovery mechanisms for KEEIA programs or similar energy-efficiency programs, the Commission should attempt to mirror this structure. This would result in the recovery of program costs. However, the KCC should firmly reject attempts to collect a TD and EO Award from ratepayers.

Q. Why is it appropriate to recover actual program costs from ratepayers?

A. If the Commission approves the KCPL's proposed energy-efficiency programs or some modified version of the programs, then the Commission would have found that the authorized programs do result in some benefit to ratepayers and are being undertaken for the overall benefit of ratepayers. In that case, it would be reasonable for ratepayers to pay for the actual costs of these programs, to the extent that such costs are not otherwise reflected in base rates. Therefore, all actual costs of the authorized measures and incentives should be included in any cost recovery mechanism.

Q. How do you recommend that program costs be recovered?

A. Such costs should be recovered through the current EE Rate Rider or some similar mechanism. Since the Company already has an approved EE Rate Rider in place, there is no reason to create an entirely new mechanism to recover these costs. Therefore, I recommend that the current EE Rate Rider be adopted. Under the current EE Rate Rider, costs incurred in the prior calendar year are recovered in the following July through June timeframe. The Company makes a filing on March 31st for costs incurred in the prior calendar year and recovery of these costs, if approved, begins July 1st. The Company

indicated in its filing in this case that "the lack of a mechanism to address the throughput disincentive or to provide any earnings opportunity are the Company's primary concerns with the EE Rider."[26] However, as discussed below, I recommend that the Commission reject both the TD and the EO Award as proposed by the Company. Therefore, the current EE Rate Rider provides a reasonable mechanism for recovery of costs associated with the KEEIA or a similar program.

B. TD

Q. Do you recommend the Commission approve KCPL's request to recover margins lost due to successful implementation of its proposed suite of energy-efficiency programs?

A. No I do not.

Q. Why do you recommend that the TD be rejected?

A. I recommend that the TD be rejected for several reasons. First, it is impossible to accurately assess the impact of any particular demand side management program on a utility's sales. Any evaluation is necessarily based on numerous assumptions. While the Company will be able to accurately track the number of measures distributed, in many cases it will not know with certainty the number of measures actually installed and utilized. For example, KCP&L can distribute light bulbs but cannot be sure that each light bulb was actually installed by customers. Moreover, even if each light bulb were installed, it is impossible to know the actual change in energy consumption resulting from

[26] Application in KCC Docket No. 16-KCPE-446-TAR, page 2.

that installation, since customers' usage patterns change over time and for a variety of reasons. For example, a customer may install an energy efficient light bulb and then decide to leave the lights on more frequently, offsetting the benefit of the more efficient lighting. Or usage patterns can change for reasons that have nothing to do with the lighting measures themselves. For example, children returning from college, elderly parents moving in, a job change, a new hobby, and a multitude of other factors all impact energy usage.

The Company (and energy experts) recognizes the difficulty in tracking changes in consumption resulting from a particular energy-efficiency measure. For that reason, general demand response assumptions have been developed to estimate the impact of various energy-efficiency measures on consumption. In addition, other evaluation techniques have been developed including home visits and the installation of specific measuring devices that can track energy usage. However, in spite of these efforts, it is not possible to know with certainty how usage would have varied if the energy-efficiency measure had not been installed. While these evaluation techniques are useful to broadly evaluate the impact of various energy-efficiency measures, they should not be used to charge ratepayers for a utility's estimated loss of margin.

Not only is it virtually impossible to accurately measure the impact of any particular measure on energy usage, but charging a TD also sends the wrong signal to customers. The TD penalty requires ratepayers to pay more – the more they conserve. Thus, ratepayers are being asked to bear the energy-efficiency burden but shareholders do not want to share that burden and insist on being "made whole" for any reduction in energy sales.

Q. Does the Commission have an existing policy regarding lost revenue recovery mechanisms, like KCPL's proposed TD?

A. Yes. Originally, in its Order in the 441 Docket, the Commission stated that it would not favor a lost revenue recovery mechanism because of "the high premium this method places on accurate evaluation of program impacts and the increased potential for expensive and time-consuming litigation arising from disputes."[27]

In the 337 Docket, the Commission clarified its position and firmly renounced lost revenue recovery mechanisms by stating:

- "(g)iven the current economic and regulatory environment, the Commission is disinclined to allow lost margin recovery,"
- "allowing recovery of lost margin creates a subsidy for energy efficiency programs that can violate the fundamental ratemaking principle of cost causation,"
- "under the principle of cost causation, the participants in the energy efficiency programs alone should be responsible for any reduction in revenue resulting from the energy efficiency program," and
- "(i)n general, the Commission will not allow recovery for lost margins."[28]

[27] November 14, 2008 Final Order in KCC Docket No. 08-GIMX-441-GIV at ¶ 66.
[28] March 6, 2013, Docket No. 12-GIMX-3237-GIV, Order.

Q. Given the Commission's Order in the 337 Docket, would you expect the Commission to approve a proposal for a lost revenue recovery mechanism?

A. No. In its Order in the 337 Docket, the Commission indicated that allowing lost revenue recovery is in violation of the fundamental ratemaking principle of cost causation. Given that language, I would not expect the Commission to approve an application for lost revenue recovery.

Q. If the Commission were to approve KCPL's proposed programs or a modified version of the programs, is the Commission required to approve KCPL's TD mechanism?

A. No, it is not. Regarding cost recovery mechanisms, KEEIA states the Commission "***may*** allow cost recovery mechanisms that further encourage investments in demand-side programs."[29] (***emphasis added***) KEEIA requires the Commission provide timely cost recovery of the reasonable and prudent costs associated with delivering demand-side programs, but it does not require the Commission to approve any one or combination of cost recovery mechanisms to encourage further investments.

Q. Does KEEIA require demand-side program investments be valued equal to traditional investments in supply and delivery infrastructure?

A. Yes. KEEIA states that it "shall be the policy of the state to value demand-side program investment equal to traditional investments in supply and delivery infrastructure as much as it practicable…".

[29] KEEIA at (d)(1)

Q. Does KCPL's proposed TD treat demand-side investments equal to traditional investments in supply side resources?

A. No, it does not. Under the current ratemaking mechanism, the Company's investors bear the risk of reduced sales between base rate cases. In addition, investors reap the benefits of increased sales between base rate cases. Because of this additional risk, the Company's shareholders are awarded an authorized return on equity that is higher than a risk-free rate. But in return, they are actually expected to insure some risk. Utility shareholders are increasingly seeking ways to lower risk without impacting their return, by transferring more and more of that risk to ratepayers. In fact, under the Company's proposal, shareholders could receive compensation for lost sales related to the KEEIA Program even if overall revenues exceeded those authorized in the Company's last base rate case. If the Commission authorizes a KCPL's portfolio of demand-side programs or any modified version of the programs, it should treat any reduction in sales the same way it treats sales reductions now, and deny the Company's request to recover a TD from ratepayers.

Q. You testified earlier that KCPL plans on filing a rate case within the next three years. Does that effect the TD?

A. Yes, it does. While the Company's plans are not finalized and are subject to change, it is my understanding that KCP&L does currently plan to file at least one rate case over the 2017-2019 period. Presumably the Company will also file a rate case at, or shortly after, completion of the three-year cycle. Therefore, any loss of margin that does occur due to

implementation of these programs will be short-term, since pro forma sales levels will be reset in each base rate case.

Q. Please summarize your concerns with the TD.

A. Ratepayers should not be charged a penalty based on usage assumptions that are impossible to verify. In addition, the TD sends the wrong signal to ratepayers by requiring them to pay more when they use less energy. The TD is also inconsistent with the current methodology for recovery of generation resources. Finally, the TD inappropriately shifts risk from shareholders to ratepayers. Given the fact that the Company plans to continue to file frequent rate cases, any loss in throughput relating to energy-efficiency programs will be short-term. For all these reasons, the KCC should reject the Company's request to recover a TD from Kansas ratepayers.

C. Earnings Opportunity

Q. Do you recommend the Commission approve KCPL's proposed EO?

A. No, I do not.

Q. Does KCPL's proposed EO treat demand-side investments equal to traditional investments in supply side resources?

A. No, it does not. KEEIA states that it "shall be the policy of the state to value demand-side program investment equal to traditional investments in supply and delivery infrastructure as much as it practicable…". While shareholders do earn a return on investment in supply side resources, they do so because they actually invest in these

resources. In this case, KCPL is proposing that shareholders effectively earn a return on an investment that they never made, creating a windfall for shareholders at the expense of Kansas ratepayers.

Q. What is the Company's justification for seeking to recover the EO Award from ratepayers?

A. According to the Company's Filing, the EO Award "would allow the Company to retain a portion of the net benefits of providing a demand-side program for its shareholders".[30] The Company claims that the EO would align the Company's interests with helping its customers use energy more efficiently and in a manner that sustains or enhances such customers' incentives to use energy more efficiently, consistent with the Act. The Company goes on to state that EO Award target of $8.5 million represents only 16.8% of the estimated net benefits of the proposed KEEIA Cycle 1 programs and the remaining 83.2% of the net benefits will be retained by Kansas customers.

Q. Is it appropriate to permit KCP&L to collect an EO Award from Kansas ratepayers?

A. No, it is not, for several reasons. First, the EO does not reflect a return on investment by shareholders in the Company. Under the Company's proposal, 100% of the actual program costs would be recovered from ratepayers. Moreover, the Company proposes to collect these program costs on a contemporaneous basis, so there is no investment of even working capital required by shareholders. The Company also proposes to collect a

[30] KEEIA Cycle 1 Filing, 2017-2019, page 4-17.

TD to make shareholders "whole" for any lost revenues resulting from demand-side programs. Therefore, shareholders are not incurring any costs or taking on any additional risk as a result of the KEEIA Program. Why then, should shareholders be given an extra "reward" through the EO? I contend they should not.

Second, as discussed earlier in my testimony, I disagree with the Company's quantification of net benefits. Because of KCPL's use of inflated avoided costs and overstated energy savings from its TRM, it is likely that there are no net benefits to ratepayers of the Company's proposal. Therefore, the Company's claim that its proposed cost recovery mechanism allows ratepayers to receive 83.2% of the net benefits is misplaced.

Third, even if there were net benefits resulting from the KCPL proposed demand-side programs, these net benefits would reflect net societal benefits and/or avoided ratepayer costs. The Company's analysis which use inflated costs and benefits, results in a RIM score of less than 1.0. As noted on page 2-8 of the KEEIA Cycle 1 Filing, 2017-2019, the "RIM test attempts to show the effect of the DSM portfolio on customer rates." The Company's calculated RIM of 0.88 in Table 1-2 demonstrates that even if the Commissions accepts all of the Company's assumptions used in its cost/benefit analysis, KCPL's portfolio of demand-side programs still results in net <u>costs</u> to Kansas ratepayers. Therefore, KCPL's statement that shareholders are only receiving 16.8% of a benefit that is primarily going to ratepayers is misleading. While ratepayers will pay higher rates, the Company wants to shareholders to not only be fully compensated for any risk of reduced sales, but to actually make an additional profit off the program.

Q. Is there any rate component comparable to the EO Award with regard to supply side investment?

A. No, there is not. In the response to CURB-6, the Company acknowledged that it "does not have an equivalent calculation for earnings opportunity associated with traditional investment in supply and delivery infrastructure." However, it attempted to quantify in that response the equity portion of the return associated with avoided capacity. This suggests that not only do shareholders expect that ratepayers will pay all program costs on a contemporaneous basis, and make shareholders whole for any reduction in sales, but shareholders also expect to be awarded additional earnings for capacity that will not need to be built as a result of implementation of its proposed demand-side programs. The cost recovery mechanism proposed by KCPL in this case does not value demand side management programs on the same basis as supply side resources. Instead, the Company's proposal seeks to turn demand side management into a significant new profit center for shareholders while reducing shareholder risk.

Q. What do you recommend?

A. I recommend that the KCC reject the Company's claim for recovery of an EO Award from ratepayers. The EO is not cost-based, is inconsistent with traditional ratemaking principles and will result in a windfall for shareholders. Accordingly, it should be rejected by the Commission.

Q. If the Commission approves the EO as proposed by KCPL, do you have any recommendations the Commission should consider?

A. Yes. KCPL's application of programs includes language that would allow KCPL to discontinue all program offerings after providing a 30 day notice to the Commission. Should the Commission approve this language, allowing KCPL to unilaterally drop KEEIA programs at the Company's own discretion, I recommend the DSIM mechanism should correspondingly be discontinued and the opportunity to collect upon the EO be removed. As stated earlier, I do not recommend approval of KCPL's proposed Earnings Opportunity for the shareholders in this application as it is not in the ratepayer's interest. As a protection for ratepayers, if the Commission approves any EO or incentive mechanism, KCPL shareholders should not be allowed to collect upon the earnings opportunity lost if any program approved in the KEEIA Cycle I application be abandoned by KCPL.

D. Alternatives

Q. If the Commission approves KCPL's proposed demand-side programs or modified programs, and wanted to award provide an earnings opportunity to shareholders, how should the resulting earnings opportunity be structured?

A. If the Commission decides that shareholders should have an opportunity to receive a return associated with the performance of KCPL's portfolio of demand-side programs, then the earnings opportunity should meet the following criteria:

- Any earnings opportunity should not be awarded to KCPL shareholders until actual energy savings from the energy-efficiency programs has been verified

through an independent evaluation, measurement and verification and approved by the Commission, Staff and CURB;

- Before receiving any financial reward for performance, the verified actual energy savings obtained from the energy-efficiency program must meet a target performance level that has been established by the Commission;
- After verification of actual savings achieved through the energy-efficiency program, KCPL shareholders should allowed to retain a portion of the net benefits provided by the successful implementation of the program, up to a predetermined cap established by the Commission.

Q. Is your recommendation to allow KCPL shareholders to retain a portion of the verified net benefits that are achieved from a cost-effective energy-efficiency program, in compliance with KEEIA?

A. Yes. KEEIA provides that the Commission may allow for cost recovery mechanisms which include "allowing the public utility to retain a portion of the net benefits of a demand-side program for its shareholders."[31]

Q. Would you support a KCPL proposal to retain a portion of the net benefits achieved through a cost-effective energy-efficiency program?

A. Obviously it depends on certain aspects of the mechanism, but generally speaking, yes, I

[31] KEEIA (d)(1)

would be supportive of sharing the verified net benefits that are achieved through the successful implementation of energy-efficiency programs between ratepayers and KCPL shareholders.

Q. Please summarize the Cost Recovery portion of your testimony.

A. I recommend that the KCC deny the Company's proposal to implement a KEEIA Program at this time. Accordingly, there is no reason for the KCC to authorize any cost recovery mechanism. However, if the KCC decides to approve some form of the proposed program, then I recommend that rate recovery be limited to actual program costs and that such costs be recovered through the existing EE Rate Rider or a similarly-structured rider. I also recommend that the Company's requests for a TD and EO Award be denied. If the KCC believes that some additional equity return should be given to KCP&L, then it should require that actual Program Costs be amortized over a multi-year period and that the Company be permitted to recover carrying costs on the unamortized balance. This methodology would value KEEIA investments on the same basis as supply side resources, consistent with the Act.

Q. Does this conclude your testimony?

A. Yes, it does.

VERIFICATION

STATE OF KANSAS)

COUNTY OF SHAWNEE) ss:

I, Stacey Harden, of lawful age and being first duly sworn upon my oath, state that I am a consultant for the Citizens' Utility Ratepayer Board; that I have read and am familiar with the above and foregoing document and attest that the statements therein are true and correct to the best of my knowledge, information, and belief.

Stacey Harden

SUBSCRIBED AND SWORN to before me this 8th day of August, 2016.

DELLA J. SMITH
Notary Public - State of Kansas
My Appt. Expires January 26, 2017

Notary Public

My Commission expires: 01-26-2017.

APPENDIX A

Referenced Data Requests

CURB-6
CURB-7
CURB-39
CURB-40
CURB-48
CURB-49
CURB-57

KCC-5*
KCC-25**

***Spreadsheet Voluminous – not included**
**** Confidential response – not included**

KCPL KS
Case Name: 2016 KEEIA
Case Number: 16-KCPE-446-TAR

Response to Nickel David Interrogatories - CURB_20160517
Date of Response: 06/03/2016

Question:CURB-6

Regarding the Economic Opportunity ("EO") requested by the Company, what does the Company believe is the equivalent EO associated with traditional investments in supply and delivery infrastructure?

Response:

The Earnings Opportunity (EO) Target and Cap were developed based upon the estimated net benefits resulting from implementation of the portfolio of programs representing KEEIA Cycle 1. Those net benefits are estimated at $50.6 million. (See Slide 9 of the PowerPoint presentation for KEEIA Technical Conference #1.) The proposed EO Target of $8.5 million represents just under 17% of the net benefits; that is, 83% of the net benefits would flow to customers. A sharing of benefits of approximately 20/80 utility/customer basis is common for DSM portfolios.

The Company does not have an equivalent calculation for earnings opportunity associated with traditional investment in supply and delivery infrastructure. However, the attached spreadsheet shows how valuing megawatt (MW) savings expected to result from implementation of the KEEIA Cycle 1 programs at the avoided cost of capacity (CT construction) and then calculating the equity portion of the revenue requirement of those capacity payments over a 20-year period results in a net present value (NPV) of $12.2 million.

Attachments:
QCURB-6_KEEIA - Earnings Effect Estimate.xlsx
QCURB-6_Verification.pdf

	Avoided Capacity			
	Price (Levelized)	MW Savings	Capacity Cost	Equity Portion
NPV			$47,165,761	$12,233,067
6.53%				
2017	$122.22	14.7	1,800,301	466,932
2018	$125.27	37.3	4,672,571	1,211,893
2019	$128.41	51.5	6,613,115	1,715,199
2020	$128.41	33.5	4,300,451	1,115,379
2021	$128.41	33.5	4,300,451	1,115,379
2022	$128.41	33.5	4,300,451	1,115,379
2023	$128.41	33.5	4,300,451	1,115,379
2024	$128.41	33.5	4,300,451	1,115,379
2025	$128.41	33.5	4,300,451	1,115,379
2026	$128.41	33.5	4,300,451	1,115,379
2027	$128.41	33.5	4,300,451	1,115,379
2028	$128.41	33.5	4,300,451	1,115,379
2029	$128.41	33.5	4,300,451	1,115,379
2030	$128.41	33.5	4,300,451	1,115,379
2031	$128.41	33.5	4,300,451	1,115,379
2032	$128.41	33.5	4,300,451	1,115,379
2033	$128.41	33.5	4,300,451	1,115,379
2034	$128.41	33.5	4,300,451	1,115,379
2035	$128.41	33.5	4,300,451	1,115,379
2036	$128.41	33.5	4,300,451	1,115,379

Verification of Response

Kansas City Power & Light Company

Docket No. 16-KCPE-446-TAR

The response to KCC Data Request# QCURB-6, submitted by KCP&L, is covered by this Verification of Response:

I have read the foregoing Information Request(s) and answer(s) thereto and find answer(s) to be true, accurate, full and complete, and contain no material misrepresentations or omissions to the best of my knowledge and belief; and I will disclose to the Commission Staff any matter subsequently discovered which affects the accuracy or completeness of the answer(s) to this Information Request(s).

Signed: Kim Winslow

Title: Director, Energy Solutions

Date: 05/23/2016

KCPL KS
Case Name: 2016 KEEIA
Case Number: 16-KCPE-446-TAR

Response to Nickel David Interrogatories - CURB_20160517
Date of Response: 05/31/2016

Question:CURB-7

Please confirm that all employees whose labor costs are charged to the EE programs would be 100% dedicated to EE programs, and no employee labor costs would be allocated between EE programs and activities recovered in base rates.

Response:

The labor costs included in the program cost budgets, identified in response to CURB Data Request No. 8, represent expected incremental full-time equivalent employees to support the KEEIA programs. KCP&L would anticipate that these employees would be 100% dedicated to demand-side management (DSM) programs or would charge only the actual time dedicated to DSM programs to the DSM programs. None of the direct labor costs would be the result of systematic allocation of labor costs between DSM programs and activities recovered in base rates.

Attachment: Q CURB-7_Verification.pdf

Verification of Response

Kansas City Power & Light Company

Docket No. 16-KCPE-446-TAR

The response to KCC Data Request# QCURB-7, submitted by KCP&L, is covered by this Verification of Response:

I have read the foregoing Information Request(s) and answer(s) thereto and find answer(s) to be true, accurate, full and complete, and contain no material misrepresentations or omissions to the best of my knowledge and belief; and I will disclose to the Commission Staff any matter subsequently discovered which affects the accuracy or completeness of the answer(s) to this Information Request(s).

Signed: Kim Winslow

Title: Director, Energy Solutions

Date: 05/23/2016

KCPL KS
Case Name: 2016 KEEIA
Case Number: 16-KCPE-446-TAR

Response to Nickel David Interrogatories - CURB_20160628
Date of Response: 7/13/2016

Question:CURB-39

If the Commission approves KCPL's program as presented, when will KCPL need to construct new generation, including a new peaking facility, and/or capacity generation?

Response:

Current projections indicate that if the Commission approves the three-year demand-side management (DSM) programs as presented for 2017-2019, there will be the need for a 207 MW combustion turbine in 2027 and a second 207 MW combustion turbine in 2033. It should be noted that if the three-year DSM program portfolio is extended to a 20-year timeframe, the need changes to one 207 MW combustion turbine in 2033.

Attachment: QCURB-39_Verification.pdf

Verification of Response

Kansas City Power & Light Company

Docket No. 16-KCPE-446-TAR

The response to CURB Data Request #39, submitted by KCP&L, is covered by this Verification of Response:

I have read the foregoing Information Request(s) and answer(s) thereto and find answer(s) to be true, accurate, full and complete, and contain no material misrepresentations or omissions to the best of my knowledge and belief; and I will disclose to the Commission Staff any matter subsequently discovered which affects the accuracy or completeness of the answer(s) to this Information Request(s).

Signed: _____

Title: Manager, Resource Planning

Date: July 13, 2016

KCPL KS
Case Name: 2016 KEEIA
Case Number: 16-KCPE-446-TAR

Response to Nickel David Interrogatories - CURB_20160628
Date of Response: 7/13/2016

Question:CURB-40

If the Commission denies KCPL's program as presented, when will KCPL need to construct new generation, including a new peaking facility, and/or capacity generation?

Response:

Current projections indicate that if there are no KCP&L-Kansas demand-side management (DSM) programs implemented in 2017, there will be the need for a 207 MW combustion turbine in 2024 and a second 207 MW combustion turbine in 2033.

Attachment: QCURB-40_Verification.pdf

Verification of Response

Kansas City Power & Light Company

Docket No. 16-KCPE-446-TAR

The response to CURB Data Request #40, submitted by KCP&L, is covered by this Verification of Response:

I have read the foregoing Information Request(s) and answer(s) thereto and find answer(s) to be true, accurate, full and complete, and contain no material misrepresentations or omissions to the best of my knowledge and belief; and I will disclose to the Commission Staff any matter subsequently discovered which affects the accuracy or completeness of the answer(s) to this Information Request(s).

Signed: _____

Title: Manager, Resource Planning

Date: July 13, 2016

KCPL KS
Case Name: 2016 KEEIA
Case Number: 16-KCPE-446-TAR

Response to Nickel David Interrogatories - CURB_20160722
Date of Response: 8/4/2016

Question:CURB-48

Please update your response to CURB DR-24 to include any additional cycling events through July 31, 2016.

Response:

KCP&L has conducted 40 curtailment events since 2006. Curtailment events are not distinguished between Missouri and Kansas but are called on an overall Company basis.

Year	Curtailments
2006	6
2007	6
2008	4
2009	2
2010	11
2011	1
2012	4
2013	0
2014	0
2015	2
2016 (through 7/31/2016)	4

Attachment: QCURB-48_Verification.pdf

Verification of Response

Kansas City Power & Light Company

Docket No. 16-KCPE-446-TAR

The response to CURB Data Request# QCURB-48, submitted by KCP&L, is covered by this Verification of Response:

I have read the foregoing Information Request(s) and answer(s) thereto and find answer(s) to be true, accurate, full and complete, and contain no material misrepresentations or omissions to the best of my knowledge and belief; and I will disclose to the Commission Staff any matter subsequently discovered which affects the accuracy or completeness of the answer(s) to this Information Request(s).

Signed: Kim Winslow

Title: Director, Energy Solutions

Date: 7/29/2016

KCPL KS
Case Name: 2016 KEEIA
Case Number: 16-KCPE-446-TAR

Response to Nickel David Interrogatories - CURB_20160722
Date of Response: 8/4/2016

Question:CURB-49

At what point will KCPL no longer have the technical ability to cycle the residential thermostats installed during the Optimizer program due to changes in technology, vendors, or any other factor?

Response:

As it relates to technical feasibility, there are several factors that could affect the continued operation of the residential thermostats installed during the Energy Optimizer program; however, it is difficult to distinguish when the technical ability to be cycled would diminish. A few of these factors are listed below.

Degradation of the paging coverage utilized to communicate with the thermostats is the biggest contributor to the continued operation of the thermostats but there is no way to truly predict when and where paging coverage will diminish and at what rate.

The thermostat hardware equipment life itself is another factor that contributes to the operation of the thermostats as eventually the thermostats will physically fail and need to be replaced.

Additionally, the continued offering of the paging service and communication platform by the vendor greatly contributes to the continued operation of the thermostats. In 2016, the thermostat model installed as part of the Energy Optimizer program was sunset and is no longer available for purchase. At some point the vendor may decide to stop offering the communication services to the existing thermostats in the program, which would render them unable to cycle as part of the Programmable Thermostat program.

The plan for KCP&L's Programmable Thermostat program in KEEIA Cycle 1 is to replace all the existing Energy Optimizer program thermostats over the next three years. This strategy will mitigate the potential issues described above for technical feasibility which are expected to be longer than a three-year horizon. The exception would be if the existing Energy Optimizer equipment fails before the third year, the customer situation could be remedied quickly by calling to get a replacement thermostat.

Attachment: QCURB-49_Verification.pdf.

Verification of Response

Kansas City Power & Light Company

Docket No. 16-KCPE-446-TAR

The response to CURB Data Request# QCURB-49, submitted by KCP&L, is covered by this Verification of Response:

I have read the foregoing Information Request(s) and answer(s) thereto and find answer(s) to be true, accurate, full and complete, and contain no material misrepresentations or omissions to the best of my knowledge and belief; and I will disclose to the Commission Staff any matter subsequently discovered which affects the accuracy or completeness of the answer(s) to this Information Request(s).

Signed: Kim Winslow

Title: Director, Energy Solutions

Date: 7/29/2016

KCPL KS
Case Name: 2016 KEEIA
Case Number: 16-KCPE-446-TAR

Response to Nickel David Interrogatories - CURB_20160722
Date of Response: 08/05/2016

Question:CURB-57

Please run the following DSMore simulation using DEER standard values (as presented in KCPL response to Staff DR 5) instead of the TRM values used by KCPL. All other inputs should remain as presented in KCPL's application.

Number of Attachments:

Response:

Objection:
KCP&L objects to this data request to the extent that it would require KCP&L to create documents upon which the Company did not rely in filing its Application. Further, the extensive amount of time and resources necessary to conduct the simulation make the request unduly burdensome and expensive.

Attachments:
QCURB-57_Objection.pdf
QCURB-57_Verification.pdf

Verification of Response

Kansas City Power & Light Company

Docket No. 16-KCPE-446-TAR

The response to CURB Data Request# QCURB-57, submitted by KCP&L, is covered by this Verification of Response:

I have read the foregoing Information Request(s) and answer(s) thereto and find answer(s) to be true, accurate, full and complete, and contain no material misrepresentations or omissions to the best of my knowledge and belief; and I will disclose to the Commission Staff any matter subsequently discovered which affects the accuracy or completeness of the answer(s) to this Information Request(s).

Signed: Kim Winslow

Title: Director, Energy Solutions

Date: 7/29/2016

KCPL KS
Case Name: 2016 KEEIA
Case Number: 16-KCPE-446-TAR

Response to Turner John Interrogatories - KCC_20160610
Date of Response: 07/13/2016

Question:5

Please provide a comparison, in Excel format, of KCP&L's measures within the Technical Resource Manual to DEER, Illinois TRM, and Indiana TRM, including incremental cost, electric energy savings (annual kWh/unit), demand savings (kW/unit), and measure life.

Number of Attachments:

Response:

Please find attached the comparison of the measures in the KCP&L Technical Resource Manual (TRM) with the California Database for Energy Efficiency Resources (DEER) database. Pursuant to discussion with John Turner following issuance of this data request, the parties agreed to limit the scope to a comparison of KCP&L's TRM to the DEER. Comparison to the Illinois and Indiana TRMs was excluded due to the cost and amount of effort it would require.

The following comments provide more context and explanation of the details. In general, the differences between KCP&L's TRM and DEER are expected due to the differences in baseline market conditions, building stock, state and local building codes and equipment standards, labor cost structures, customer awareness, demand-side management (DSM) program maturity, and several other factors.

Weather is also a consideration in comparing the two databases. California Climate Zone 11 and 12 were used in the calculation of weather sensitive measure savings as most representative of Kansas City based on comparisons for Equivalent Full Load Hours (EFLH) cooling and EFLH heating. Though Climate Zone 16 was more similar to Kansas City in regard to heating, it did not have enough cooling. The comparison of savings for all weather-dependent measures should be viewed from the context that no California climate zone is truly comparable to Kansas.

Specific data fields included in the analysis are measure and baseline descriptions, measure life, incremental measure cost, gross kWh savings per unit, and gross kW savings per unit. There are separate columns to investigate the various metrics of interest for KCP&L, DEER, and % Difference where applicable.

AEG, KCP&L's consultant, also added a "levelized cost per kWh saved" calculation with an assumed 5% discount rate to pull all the metrics together into a single number. The savings-

weighted $/kWh indicates that KCP&L assumptions are about 15% cheaper than DEER in terms of the levelized cost of electricity (LCOE).

Also included are coincidence factor and operating hours in the relatively few cases where we could find the data. However, Net-to-gross (NTG) information was not found that was comparable across the disparate program structures.

A small number of the measures are early replacement, so we focused on the "remaining life" savings, which are the first tier of higher savings that are generally measured against the existing/replaced unit as the baseline.

Attachments:

Q5_KCPL_measure_comparison_KEEIA_vs_DEER 2016-07-08.xlsx
Q5_Verification.pdf

Verification of Response

Kansas City Power & Light Company

Docket No. 16-KCPE-446-TAR

The response to KCC Data Request# Q0005, submitted by KCP&L, is covered by this Verification of Response:

I have read the foregoing Information Request(s) and answer(s) thereto and find answer(s) to be true, accurate, full and complete, and contain no material misrepresentations or omissions to the best of my knowledge and belief; and I will disclose to the Commission Staff any matter subsequently discovered which affects the accuracy or completeness of the answer(s) to this Information Request(s).

Signed: Kim Winslow

Title: Director, Energy Solutions

Date: 06/15/2016

CERTIFICATE OF SERVICE

16-KCPE-446-TAR

I, the undersigned, hereby certify that a true and correct copy of the above and foregoing Direct Testimony of Stacey Harden (Public Version) was served by electronic service on this 8th day of August, 2016, to the following parties:

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