Exhibit No.:	
Issues:	Residential Customer Charges, Time-Differentiated Rates, Clean Charge Network
Witness:	Martin Hyman
Sponsoring Party:	Missouri Department of Economic Development – Division of Energy
Type of Exhibit:	Rebuttal Testimony
Case No.:	ER-2014-0370

MISSOURI PUBLIC SERVICE COMMISSION

KANSAS CITY POWER & LIGHT COMPANY

CASE NO. ER-2014-0370

REBUTTAL TESTIMONY

OF

MARTIN R. HYMAN

ON

BEHALF OF

MISSOURI DEPARTMENT OF ECONOMIC DEVELOPMENT

DVISION OF ENERGY

Jefferson City, Missouri
May 7th, 2015

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of Kansas City Power & Light	)	
Company's Request for Authority to Implement	)	ER-2014-0370
A General Rate Increase for Electric Service	)	

AFFIDAVIT OF MARTIN HYMAN

STATE OF MISSOURI	)	
	)	**ss**
COUNTY OF COLE	)	

Martin R. Hyman, of lawful age, being duly sworn on his oath, deposes and states:

1. My name is Martin R. Hyman. I work in the City of Jefferson, Missouri, and I am employed by the Missouri Department of Economic Development as a Planner II, Division of Energy.
2. Attached hereto and made a part hereof for all purposes is my Rebuttal Testimony on behalf of the Missouri Department of Economic Development – Division of Energy.
3. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded are true and correct to the best of my knowledge.

Martin R. Hyman

Subscribed and sworn to before me this 7th day of May, 2015.

Melissa Ann Adams
Notary Public

My commission expires:

MELISSA ANN ADAMS
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: March 09, 2019
Commission Number: 15633820

MELISSA ANN ADAMS
NOTARY PUBLIC
NOTARY SEAL
COMMISSION #15633820
COLE COUNTY
STATE OF MISSOURI
MY COMMISSION EXPIRES 03/09/2019

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I. INTRODUCTION

Q. Please state your name and business address.

A. My name is Martin R. Hyman. My business address is 301 West High Street, Suite 720, PO Box 1766, Jefferson City, Missouri 65102.

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

A. I am employed by the Missouri Department of Economic Development – Division of Energy ("DE") as a Planner II.

Q. Please describe your educational background and employment experience.

A. In 2011, I graduated from the School of Public and Environmental Affairs at Indiana University in Bloomington with a Master of Public Affairs and a Master of Science in Environmental Science. There, I worked as a graduate assistant, primarily investigating issues surrounding energy-related funding under the American Recovery and Reinvestment Act of 2009. I also worked as a teaching assistant in graduate school and interned at the White House Council on Environmental Quality in the summer of 2011. I began employment with DE in September, 2014. Prior to that, I worked as a contractor for the U.S. Environmental Protection Agency to coordinate intra-agency modeling discussions.

Q. Have you previously filed testimony before the Missouri Public Service Commission ("PSC" or "Commission") on behalf of DE or any other party?

A. Yes. On April 27th, 2015 I submitted Surrebuttal Testimony in EO-2015-0055 on behalf of DE regarding Union Electric Company d/b/a Ameren Missouri's ("Ameren Missouri") Cycle II portfolio under the Missouri Energy Efficiency Investment Act ("MEEIA").

II. PURPOSE AND SUMMARY OF TESTIMONY

Q. What is the purpose of your direct testimony in this proceeding?

A. The purpose of my testimony is to explain DE's opposition to any increase in Residential Customer Charges proposed by Kansas City Power & Light Company ("KCP&L," "the Company," or "Company") in this proceeding. This disproportionate increase in fixed charges, as compared to the variable Residential Energy Charges, reduces customer incentives to engage in energy efficiency and contradicts the spirit of MEEIA as stated in §393.1075.4 RSMo, namely the achievement of, "… all cost-effective demand-side savings." The Company's description of its proposal may also inaccurately convey the potential impacts of these proposed changes on low-income customers with respect to energy efficiency.

I will also explain DE's opposition to the Company's proposal to freeze its time-differentiated rates, in particular its Residential Time of Day (Schedule RTOD, Sheet Nos. 8-8A), Two Part - Time Of Use (Schedule TPP - Sheet Nos. 20-20E), Real-Time Pricing (Schedule RTP, Sheet Nos. 25-25D), and Real-Time Pricing - Plus rate schedules (Schedule RTP - Plus, Sheet Nos. 26-26D). DE's position is that the Company's justifications for freezing these rate schedules are inadequate, and that customers are encouraged to engage in energy efficiency through time-differentiated rate designs. DE thus recommends that the Commission order the Company to instead submit revised versions of these rate schedules in its next general rate case.

Finally, I will explain DE's support in principle for cost recovery related to the Company's Clean Charge Network pilot initiative, since the initiative will result in long-run, cost-related benefits to ratepayers, increased economic development in the Kansas

City metropolitan area, and reduced total emissions from the transportation and electric power sectors. The Commission has clear statutory authority to regulate these electric vehicle charging stations, and the initiative will not run afoul of the Promotional Practice rules. Costs of the Clean Charge Network's charging stations should initially be recovered from the Company's partners at standard tariff rates during the initiative's pilot phase; however, the Commission should also require that the Company propose tariffs in the context of its next rate case to address the issue of cost recovery after the initiative's pilot phase.

All references are cited in the footnotes below.

III. RESIDENTIAL CUSTOMER CHARGES

A. OVERVIEW

1. COMPANY'S REQUEST IN THE CURRENT CASE

Q. What is the Company's proposal with regard to Residential Customer Charges in this rate case?

A. The Company proposes to raise the Customer Charges across all Residential rate schedules to $25.00, as well as increasing the additional charge for space heating customers using two meters to $5.00.[1] These changes are summarized below.[2]

[1] Company witness Rush discusses rate design starting on page 58 of his Direct Testimony; his discussion of Residential rates appears on pages 65 through 70, with a quantitative summary of the changes in columns B and D of lines 10 through 39 on the first page of Schedule TMR-9. Missouri Public Service Commission Case No. ER-2014-0370, *In the Matter of Kansas City Power & Light Company's Request for Authority to Implement A General Rate Increase for Electric Service*, Direct Testimony of Tim M. Rush on Behalf of Kansas City Power & Light Company, October 30th, 2014.

[2] Current rates from present Company tariff Sheet Nos. 5A-8; proposed rates from Missouri Public Service Commission Case No. ER-2014-0370, *In the Matter of Kansas City Power & Light Company's Request for Authority to Implement A General Rate Increase for Electric*

Rate	Current	Proposed	Percent Increase
General Use	$9.00	$25.00	177.78%
General Use and Space Heat (One Meter)	$9.00	$25.00	177.78%
General Use and Space Heat (Two Meters)	$11.05	$30.00	171.49%
Other Use (Schedule ROU)	$9.00	$25.00	177.78%
Time-of-Use	$14.04	$25.00	78.06%

Q. Would the Residential Energy Charges rise by the same percentages?

A. The Residential Energy Charges would not rise as drastically for any rate schedule under the Company's proposal; many of these Energy Charges would not change within certain blocks at all or would even decrease, as shown below:[3]

Service, Information Filed in Accordance with 4 CSR-240-3.030: Minimum Filing Requirements for Utility Company General Rate Increases, Appendix 1: Proposed Tariff Change Schedules, October 30th, 2014, Sheet Nos. 5A-8.

[3] *Ibid.*

Rate, Season, Block, and Peak Period			Current (per kWh)	Proposed (per kWh)	Percent Change
General Use / General Use (Two Meter Heating)	Summer		$0.12157	$0.12712	4.57%
	Winter	0-600 kWh	$0.10929	$0.09737	-10.91%
		600 kWh	$0.06552	$0.07548	15.20%
		1000+kWh	$0.05475	$0.05423	-0.95%
General Use (One Meter Heating)	Summer		$0.12157	$0.12712	4.57%
	Winter	0-600 kWh	$0.08544	$0.08544	0.00%
		600 kWh	$0.08544	$0.07548	-11.66%
		1000+kWh	$0.05370	$0.05370	0.00%
Other Use	Winter		$0.12268	$0.11168	-8.97%
	Summer		$0.15789	$0.13420	-15.00%
Time-of-Use	Summer	On-Peak	$0.18643	$0.21583	15.77%
		Off-Peak	$0.10386	$0.12024	15.77%
	Winter		$0.07677	$0.07677	0.00%

2. COMPANY'S REQUEST IN ITS MOST RECENT GENERAL RATE CASE AND COMPARISON TO OTHER UTILITIES

Q. In the immediately prior general rate case filed by the Company (ER-2012-0174), what was the Company's proposal with respect to Residential Customer Charges?

A. The Company requested to increase its Residential Customer Charges, though not as drastically as in the current proceeding:[4]

Rate	Customer Charges in Effect at time of ER-2012-0174	Proposed Customer Charges in ER-2012-0174	Percent Increase
General Use	$9.00	$10.35	15.00%
General Use and Space Heat (One Meter)	$9.00	$10.35	15.00%
General Use and Space Heat (Two Meters)	$11.05	$12.71	15.02%
Other Use (Schedule ROU)	$9.00	$10.35	15.00%
Time-of-Use	$14.04	$16.15	15.03%

Q. What was the outcome of this request?

A. The Commission denied the Company's proposal based on recommendations from the Office of the Public Counsel ("OPC") regarding the ability of customers to control energy consumption. In its Report and Order, the Commission stated:

> OPC asks the Commission that any increase in residential rates not apply to the monthly customer charge. AARP and CCoMO concur. **Because volumetric charges are more within the customer's control to consume or conserve, the**

[4] From cancelled tariff sheets filed under YE-2011-0523, as well as Missouri Public Service Commission Case No. ER-2012-0174, *In the Matter of Kansas City Power & Light Company's Request for Authority to Implement A General Rate Increase for Electric Service*, Information Filed in Accordance with 4 CSR-240-3.030: Minimum Filing Requirements for Utility Company General Rate Increases, Appendix 1: Proposed Tariff Change Schedules, February 27th, 2012, Sheet Nos. 5A-8.

> **volumetric rate is the more appropriate to increase**. Therefore, the Commission will order that **any increase in residential rates should not apply to the monthly customer charge**.
>
> … The Commission concludes that the grant and denial of rate shifts and increases as described above will **best support safe and adequate service at just and reasonable rates**, so the Commission will order those shifts and increases accordingly. (Emphasis added.)[5]

Q. In recent Ameren Missouri general rate cases (ER-2014-0258 and ER-2012-0166), what has the Commission decided with regards to the Residential Customer Charge?

A. The Commission's Report and Order in Case No. ER-2014-0258 approved a Stipulation and Agreement to maintain Ameren Missouri's current Residential Customer Charges at $8.00.[6] In the most recent case in which the Residential Customer Charge was a contested issue decided by the Commission, Case No. ER-2012-0166, the Commission ordered that the Customer Charge not increase.

[5] Missouri Public Service Commission Case No. ER-2012-0174, *In the Matter of Kansas City Power & Light Company's Request for Authority to Implement A General Rate Increase for Electric Service*, Report and Order, January 9th, 2013, page 40.
[6] Missouri Public Service Commission Case No. ER-2014-0258, *In the Matter of Union Electric Company, d/b/a Ameren Missouri's Tariff to Increase Its Revenues for Electric Service*, Report and Order, April 29th, 2015, page 77.

Q. As with the Report and Order in the above-cited KCP&L general rate case, was the Commission's approval of the Stipulation and Agreement in Ameren Missouri's Case No. ER-2014-0258 partly based on considerations of customer control over energy use and energy efficiency?

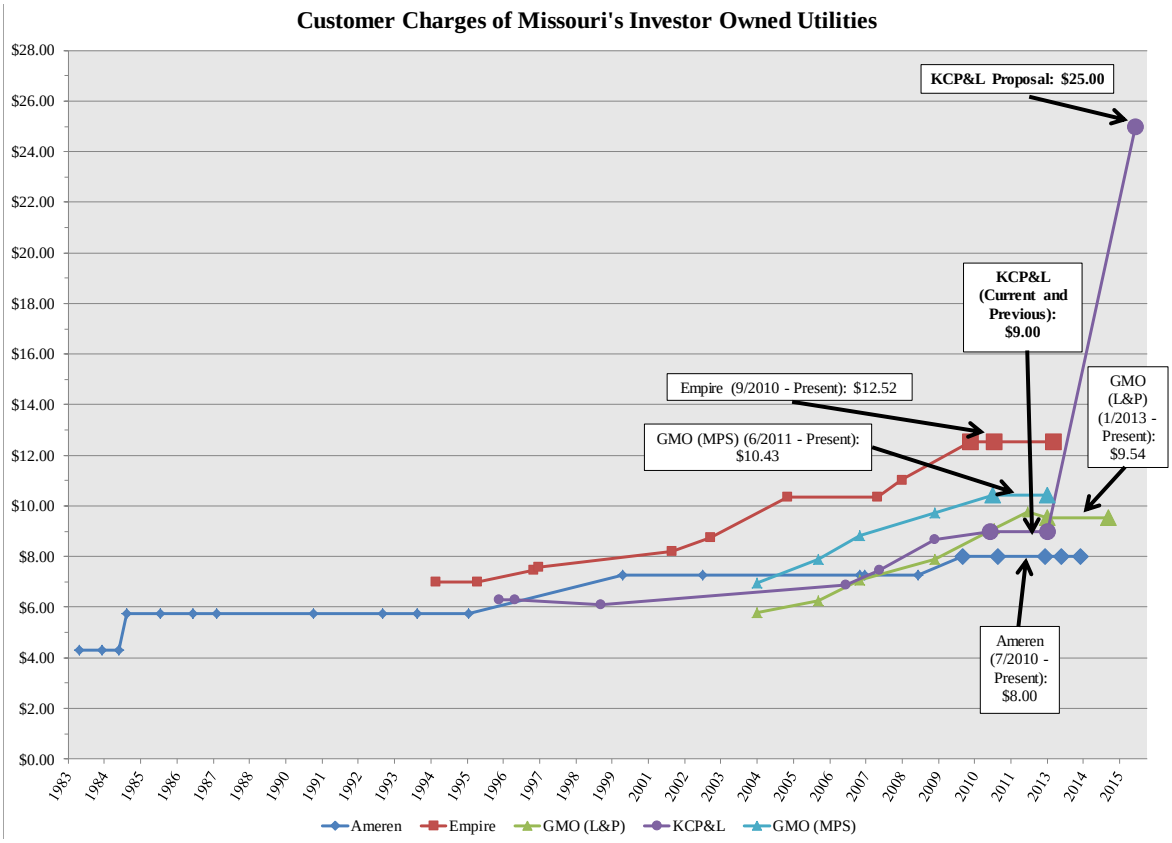
A. Yes. The Commission found:

> Residential customers should **have as much control over the amount of their bills as possible** so that they can reduce their monthly expenses by using less power, either for economic reasons or because of a g**eneral desire to conserve energy**. **Leaving the monthly charge where it is gives the customer more control**. (Emphasis added.)[7]

Q. Does the Company's Residential Customer Charge proposal mirror the trends in Customer Charges across Missouri's other investor-owned utilities ("IOUs")?

A. No. As clearly indicated in the chart below,[8] all of Missouri's IOUs, including Ameren Missouri, The Empire District Electric Company ("Empire"), Kansas City Power & Light Company – Greater Missouri Operations ("GMO") L&P and MPS territories, and even KCP&L maintained consistent Customer Charges for their main Residential rate schedules (i.e., the equivalents of KCP&L's "Residential General Use" rate schedule) over their past few general rate cases.

[7] *Ibid*, pages 76-77.
[8] Based on the effective dates and Customer Charges listed on the current and cancelled tariff sheets for the four IOUs subsequently mentioned above. The Commission's decision in the most recent Ameren Missouri rate case is not included.



Q. How do the Company's current and proposed Residential Customer Charges compare to those of other Midwestern electric utilities?

A. As noted in the Direct Testimony of Dr. David E. Dismukes, the Company's current Residential Customer Charge (at the $9.00 level) is "slightly higher" than the average of the 58 Midwestern utilities which he surveyed ($8.87), and only 20 of these Midwestern utilities have higher Residential Customer Charges.[9] He also states that the Company's

[9] Missouri Public Service Commission Case No. ER-2014-0370, *In the Matter of Kansas City Power & Light Company's Request for Authority to Implement A General Rate Increase for Electric Service*, Direct Testimony of David E. Dismukes, Ph.D on Behalf of the Office of the Public Counsel, April 16th, 2015, page 15, lines 13-18.

proposed Residential Customer Charge (at the $25.00 level) is higher than the Residential Customer Charges of all the other surveyed utilities.[10]

3. DETERMINATION OF CUSTOMER COSTS

Q. In the Commission's Report and Order on the most recent Ameren Missouri rate case (ER-2014-0258), did the Commission make a finding with regards to the appropriate components to include in the calculation of Customer Charges?

A. Yes. Citing the Commission Staff ("Staff"), the Commission found that:

> Customer-related costs are the **minimum costs necessary to make electric service available to the customer, regardless of how much electricity the customer uses**. Examples include **meter reading, billing, postage, customer account service, and a portion of the costs associated with required investment in a meter, the service line drop, and other billing costs**. [Citation omitted.] Customer-related costs are generally recovered through the customer charge while **other costs are recovered through volumetric rates that vary with the amount of electricity used**. (Emphasis added.)[11]

Q. Did KCP&L base its estimation of Residential Customer Charges on these specific "minimum costs" in this rate case?

A. No. According to Mr. Rush, the Company included costs associated with, "… meter reading, customer accounting, billing and some investment in plant equipment such as the meter, service line and **other local distribution facilities necessary to make service**

[10] *Ibid*, lines 6-10.
[11] Missouri Public Service Commission Case No. ER-2014-0258, Report and Order, page 75.

available,"[12] the latter of which Mr. Rush subsequently claims are allocated between customer and demand costs.[13] In short, the Company proposes to move local distribution costs – which it acknowledges include demand costs – into the Residential Customer Charges. This move is inconsistent with the examples of fixed minimum costs collected through Customer Charges as cited by the Commission in ER-2014-0258, such as, "... meter reading, billing, postage, customer account service, and a portion of the costs associated with required investment in a meter, the service line drop, and other billing costs,"[14] since none of these cost elements correspond to "other local distribution facilities."

Q. Why else is this shift in the collection of local distribution costs to the Residential Customer Charges inappropriate?

A. As explained by Dr. Dismukes in his testimony, demand-related costs (such as those for local distribution facilities) are generally collected through Energy Charges for Residential customers, partly since – in addition to ratemaking considerations such as those described elsewhere in this testimony – Residential customers lack the metering equipment needed to implement demand charges.[15] Shifting the demand-related costs from the Energy Charges to the Residential Customer Charges would also violate the principal of cost causation,[16] since, "The Company's proposal to collect the local

[12] Rush, page 50, lines 15-18.
[13] *Ibid*, lines 18-19.
[14] Missouri Public Service Commission Case No. ER-2014-0258, Report and Order, page 75.
[15] Dismukes, pages 20-21, lines 25 and 1-3.
[16] *Ibid*, page 21, lines 10-11.

facilities demand distribution component as a fixed monthly customer charge assumes all residential customers have the same level of demand ...."[17]

Therefore, the Company has incorrectly assigned local distribution costs to the Residential Customer Charges based not only on Commission precedent, but on the basis of technical capabilities, cost causation, and policy considerations (elaborated upon elsewhere in this testimony).

Q. Even if the Commission accepted the erroneous premise that certain local distribution costs should be shifted to Residential Customer Charges based on a Cost of Service or Class Cost of Service study, would the Commission be bound by such a study to increase Residential Customer Charges?

A. No. In its Report and Order on ER-2014-0258, the Commission explicitly noted:

> ... **the Commission is not bound to set the customer charges based solely on the details of the cost of service studies**. The Commission must also consider the **public policy implications of changing the existing customer charges**. There are **strong public policy considerations in favor of not increasing** the customer charges. (Emphasis added).[18]

These "strong public policy considerations" are addressed below.

B. CONCERNS WITH PROPOSED CHANGES TO CUSTOMER CHARGES

1. EFFECTS ON ENERGY EFFICIENCY

[17] *Ibid*, lines 8-10.
[18] Missouri Public Service Commission Case No. ER-2014-0258, Report and Order, page 76.

Q. Is it conceivable that customers using distributed generation technologies could almost entirely eliminate their electricity charges, as implied by Mr. Rush?[19]

A. Yes, although this is a hypothetical extreme. Such an extreme is also not applicable to customers who engage in energy efficiency efforts, which are not meant to entirely eliminate electricity consumption or charges, but to reduce consumption with respect to given end uses.

Regardless of these considerations, the Commission's determinations in the above-cited Reports and Orders indicate its preference for providing greater control to customers over their electricity bills, partly to allow customers to more freely engage in energy efficiency. Such control over total bills was determined by the Commission to result from the Energy – as opposed to Customer – Charges.[20]

Q. Will the Company's proposed increase to the Residential Customer Charges encourage energy efficiency?

A. No. According to Mr. Rush, "Since part of the revenues have been shifted from the energy charge (variable portion) of the structure to the customer charge (fixed portion), **customers with low usage will see an increase higher than average**" (emphasis added).[21] This statement raises a major concern for DE for two reasons: 1) the Company's proposal will discourage its customers from engaging in energy efficiency by increasing fixed charges which they cannot avoid, thus providing a disincentive for

[19] Rush, page 64, lines 18-19.
[20] Missouri Public Service Commission Case No. ER-2012-0174, Report and Order, page 40, and Missouri Public Service Commission Case No. ER-2014-0258, Report and Order, pages 76-77.
[21] Rush, pages 66-67, line 19 and lines 1-2.

reducing current electricity consumption; and 2) customers who currently or subsequently use little electricity will receive a higher than average increase in their electric bills.

Q. Does the Company's proposal conform to recent practices in Missouri?

A. No. As noted earlier, the Company's request for even smaller increases to its Residential Customer Charges in its last rate case (ER-2012-0174) was denied by the Commission for the exact reason that, "… volumetric charges are more within the customer's control to consume or conserve …."[22] This consideration was reiterated in the Commission's Report and Order in the most recent Ameren Missouri rate case (ER-2014-0258).[23]

Q. Please explain the policy concept behind energy efficiency – and consumer control over electricity use – through rate-setting.

A. Conceptually, a higher fixed charge (i.e., Customer Charge) effectively lowers the variable charge (i.e., Energy Charge), promoting higher energy use. By contrast, a shift away from fixed charges towards variable charges gives customers a greater incentive to engage in energy efficiency.

Q. Do other parties to this case also state that an increased Customer Charge decreases the incentive to engage in energy efficiency?

A. Yes. As Dr. Dismukes notes, "... the Company's rate design proposals are inconsistent with energy efficiency since it reduces economic incentives for ratepayers to control monthly utility bills through energy efficiency and conservation efforts, because only the variable component of bills is avoidable;"[24] he supports his discussion by citing the

[22] Missouri Public Service Commission Case No. ER-2012-0174, Report and Order, page 40.
[23] Missouri Public Service Commission Case No. ER-2014-0258, Report and Order, pages 76-77.
[24] Dismukes, page 35, lines 7-10.

Commission's decision in another Ameren Missouri rate case (ER-2012-0166),[25] a decision by the Maryland Public Service Commission, and a "Frequently Asked Questions" document by the National Association of Regulatory Utility Commissioners.[26]

A significant portion of Mr. Tim Woolf's Direct Testimony on behalf of the Sierra Club also addresses the issues surrounding Customer Charges and energy efficiency.[27] Similarly to Dr. Dismukes, Mr. Woolf explains that increased Customer Charges decrease price signals to engage in energy efficiency;[28] Mr. Woolf also cites the same Ameren Missouri rate case decision as Mr. Dismukes, although he cites a different Maryland Public Service Commission decision.[29]

Finally, the Staff's recommendation in its Rate Design and Class-Cost-of-Service Report regarding the Residential Customer Charges hinges on, "... the factors of rate simplicity, stability, customer understandability, **and public policy consideration relating to energy efficiency** ..." (emphasis added).[30] Staff also cites the same Ameren Missouri rate

[25] Missouri Public Service Commission Case No. ER-2012-0166, *In the matter of Union Electric Company d/b/a Ameren Missouri's Tariff to Increase its Annual Revenues for Electric Service*, Report and Order, December 12th, 2012, pages 110-111.
[26] Diskmukes, pages 35-37, lines 14-24, 1-22, and 1-11.
[27] Missouri Public Service Commission Case No. ER-2014-0370, *In the Matter of Kansas City Power & Light Company's Request for Authority to Implement A General Rate Increase for Electric Service,* Direct Testimony of Tim Woolf on the Topic of Kansas City Power and Light's Rate Design Proposal on Behalf of Sierra Club, April 16th, 2015, pages 19-22.
[28] *Ibid*, pages 19-20, lines 13-17 and 1-12.
[29] *Ibid*, pages 20-21, lines 13-24 and 1-18.
[30] Missouri Public Service Commission Case No. ER-2014-0370, *In the Matter of Kansas City Power & Light Company's Request for Authority to Implement A General Rate Increase for Electric Service,* Missouri Public Service Commission Staff's Rate Design and Class-Cost-of-Service Report, April 16th, 2015, pages 35-36, lines 21-22 and 1.

case and Commission decision as Dr. Dismukes and Mr. Woolf in a footnote to its recommendation:

> In ... Case No. ER-2012-0166, the Commission found that there were strong public policy considerations in favor of not increasing the customer charges, particularly, that a lower customer charge enables customers to see greater impact from conservation efforts and therefore encourages customers to engage in conservation efforts. In that case, the Commission rejected a proposed increase to the residential customer charge, noting that **increasing the customer charge would send exactly the wrong message** to customers and would discourage efforts to conserve electricity. **The same concern is raised in considering raising the residential customer charge in this case. Any increase to the residential customer charge would slightly decrease the bill impact (and cost-effectiveness) of any conservation efforts that customers may have implemented or be considering.** (Emphasis added.)[31]

Q. What are the potential repercussions of increasing the Residential Customer Charges on future participation in – and the cost-effectiveness of – energy efficiency programs?

A. Increases in the fixed Residential Customer Charges would discourage further participation in the Company's MEEIA programs in the same way that energy efficiency would be discouraged generally. By decreasing the incentive to engage in energy efficiency, the incentive to participate in MEEIA programs will also be reduced. Additionally, as Mr. Woolf notes in his testimony, increased Customer Charges would

[31] *Ibid*, page 36, footnote 22.

decrease the bill reductions recognized by customers through energy efficiency, decreasing the cost-effectiveness of MEEIA programs.[32]

The Company's recovery of lost revenues related to MEEIA programs is discussed further below; however, it is relevant to note that decreased participation in the Company's MEEIA programs – as well as decreases in these programs' cost-effectiveness and overall savings – would result in decreased revenue recovery related to these programs under the Company's "Demand-Side Programs Investment Mechanism" ("DSIM"). This would prevent the Company from recouping the same amount of lost revenues which are directly attributable to energy efficiency efforts by customers under the Company's MEEIA programs as would occur absent the increases to the Residential Customer Charges.

Q. Can you provide an example of the effects of the Company's proposal on the average Residential customer in comparison to higher- and lower-use customers?

A. The table below shows what the average Residential customer under the General Use rate schedule pays under the current rate schedule and what such a customer would pay under the proposed rate schedule, excluding taxes, the DSIM charge under MEEIA, and other charges.

[32] Woolf, page 22, lines 4-8.

Residential Rate and Percent of Average Monthly Use	Monthly Use (kWh)	Current Average Total Yearly Bill	Proposed Average Total Yearly Bill	Percent Increase
Residential General (Average Customer)	823	$1,149.34	$1,320.34	14.88%
Residential General (150 percent of Average Monthly Use)	1234.5	$1,544.84	$1,738.02	12.50%
Residential General (50 percent of Average Monthly Use)	411.5	$667.89	$829.78	24.24%

The calculations in the first row of this table are based on the Company's current and proposed Residential General Use tariffs[33] as applied to the average monthly use of a current customer under this rate schedule, with the average monthly use drawn from the "Average Monthly kWh Usage per Customer" in the Company's Minimum Filing Requirements.[34] The calculations in the second two rows are based on the usages of hypothetical Residential customers under this rate schedule at 150 percent and 50 percent of the average monthly use in the first row. As indicated in the table, the increase in the total bill for a higher-use customer is nearly half of that for a lower-use customer. Comparing the methodology used in this table to the average monthly usages and results explained in Dr. Dismukes's testimony yields similar results.[35]

[33] Current rates from present Company tariff Sheet No. 5A; proposed rates from Missouri Public Service Commission Case No. ER-2014-0370, Minimum Filing Requirements, Appendix 1: Proposed Tariff Change Schedules, Sheet No. 5A.
[34] Missouri Public Service Commission Case No. ER-2014-0370, *In the Matter of Kansas City Power & Light Company's Request for Authority to Implement A General Rate Increase for Electric Service*, Information Filed in Accordance with 4 CSR-240-3.030: Minimum Filing Requirements for Utility Company General Rate Increases, Appendix 3: Minimum Filing Requirements Information, October 30th, 2014, page 3, line 2.
[35] Dismukes, pages 37-38, lines 19-23 and 1-11.

2. RELATIONSHIP OF COMPANY RATE PROPOSAL TO MISSOURI ENERGY EFFICIENCY AND INVESTMENT ACT (MEEIA)

Q. What is the Company's position regarding the decline in revenues associated with increases in energy efficiency?

A. According to Mr. Rush, the Company does not recover the revenues which it loses from customers who engage in energy efficiency:

> From the Company perspective, **reductions in usage, driven by** reduced customer growth, **energy efficiency**, or even customer self-generation, **result in under recovery of revenues**. Growth would have compensated or completely covered this shortfall in the past. **With the accelerating deployment of initiatives that directly impact customer growth, it is becoming increasingly difficult for the Company to accept this risk of immediate under recovery**. (Emphasis added).[36]

Q. Should the Company use Residential Customer Charges to decrease its own business risks?

A. No. As noted above, the Commission's Report and Order in the most recent Ameren Missouri rate case (ER-2014-0258) rightly indicated that Residential customers should retain as much control over their bills as possible. Part of the Commission's reasoning in that Report and Order also noted that, "…electric utilities prefer to lessen risk by collecting more of their charges through the fixed customer charge;"[37] the fact that the

[36] Rush, page 63, lines 8-13.
[37] Missouri Public Service Commission Case No. ER-2014-0258, Report and Order, page 75.

Commission decided not to increase the Residential Customer Charge in that case indicates the Commission's preference not to shift risks in this manner.

This issue is also noted by Dr. Dismukes in his testimony:

> Moving the local facilities demand-related costs into the customer charge **will not better align rates** as asserted by the Company, rather the inclusion of these costs in the customer charge **merely shifts the revenue recovery risk from the Company to the residential ratepayers**. [Citation omitted.] (Emphasis added.)[38]

The Commission is not obligated to allow the Company to redesign rates in order to shift risks onto its customers; its obligation is to allow the Company the opportunity to earn a fair return while providing safe and adequate service to its customers.

Q. Setting aside the price signaling and business risk issues discussed above, does Mr. Rush's reasoning regarding energy efficiency provide sufficient justification for increasing the Company's Residential Customer Charges?

A. No. In the above statement, it is unclear whether Mr. Rush is referring to naturally occurring energy efficiency or energy efficiency as a result of the Company's programs under MEEIA. In any event, despite his claim that energy efficiency leads to a need to more immediately compensate the Company for lost revenue within this rate case, such a mechanism for lost revenue recovery related to MEEIA programs already exists under MEEIA itself. Specifically, 4 CSR-240.093 – regarding DSIMs – outlines how a company may apply for the recovery of utility lost revenue through a DSIM as a result of implementing MEEIA programs (4 CSR-240.093(2)).

[38] Dismukes, page 21, lines 5-8.

Q. Does KCP&L already have a DSIM in place which recovers utility lost revenue related to MEEIA programs from Residential customers?

A. Yes, as outlined under Schedule DSIM (Sheet Nos. 49-49E) of its tariffs. This is represented by the portion of the DSIM charged as the Net Throughput Disincentive ("NTD")[39] divided by the kilowatt-hours (kWh) of projected energy ("PE") for delivery to customers who are billed the DSIM charge, which includes this "NTD/PE" component.[40] Effective February 1, 2015, the NTD/PE component of the DSIM charge was $0.00115 per kWh for Residential customers, or 32.7% of the total Residential DSIM charge of $0.00352 per kWh.[41]

Q. If the Company already has a DSIM rider in place to recover lost revenues from implementing MEEIA-related energy efficiency programs, should it request further recovery of lost revenues resulting from MEEIA-related energy efficiency gains through the Residential Customer Charges in the current rate case?

A. No. Under 4 CSR-240.093(2)(G)1:

> **A utility cannot recover revenues lost due to utility demand-side programs unless it does not recover the fixed cost as set in the last general rate case**, i.e.,

[39] The NTD is the sum of a projected and reconciled value, both of which are defined in the Company's DSIM tariff via the "Throughput Disincentive – Net Shared Benefits" as, "…the 2014 present value of the lifetime avoided costs (i.e., **avoided energy, capacity, transmission and distribution**, and probable environmental compliance costs) for the MEEIA Cycle 1 Plan using the deemed values, less the 2014 present value of Program Costs" (emphasis added). Missouri Public Service Commission, YE-2014-0533, Kansas City Power & Light Company, Schedule of Rates for Electricity, Effective July 6, 2014. Sheet No. 49 B.

[40] Missouri Public Service Commission, YE-2014-0533, Kansas City Power & Light Company, Schedule of Rates for Electricity, Effective July 6, 2014. Sheet Nos. 49C-49D, and Missouri Public Service Commission, JE-2015-0213, Kansas City Power & Light Company, Schedule of Rates for Electricity, Effective February 1, 2015. Sheet No. 49E.

[41] Missouri Public Service Commission, JE-2015-0213, Kansas City Power & Light Company, Schedule of Rates for Electricity, Effective February 1, 2015. Sheet No. 49E.

> actual annual billed system kWh is less than the system kWh used to calculate rates to recover revenues as ordered by the commission in the utility's last general rate case. (Emphasis added.)

In addition, as stated under 4 CSR-240-093(2)(C)2 and 3:

> (C) **The commission shall approve the establishment, continuation, or modification of a DSIM** and associated tariff sheets if it finds the electric utility's approved demand-side programs … will assist the commission's efforts to implement state policy contained in section 393.1075, RSMo, to— …
>
> 2. **Ensure that utility financial incentives are aligned with helping customers use energy more efficiently** and in a manner that sustains or enhances utility customers' incentives to use energy more efficiently; and
>
> 3. **Provide timely earnings opportunities** associated with cost-effective measurable and/or verifiable energy and demand savings. (Emphasis added.)

In essence, the Company may not request lost revenue recovery under MEEIA as a part of this general rate case because the rules for DSIM riders (and related settlements) already provide for such recovery in order to implement MEEIA's revenue-alignment principles. However, the Company may make such a revenue recovery request as a part of a DSIM-related filing under 4 CSR-240-093(2) if under-recovery occurs subsequent to the current rate case.[42]

[42] There are also other provisions for the adjustment of the DSIM rider, most pertinently at 4 CSR-240-093(4) ("Requirements for Semi-Annual Adjustments of DSIM Rates, if the Commission Approves Adjustments of DSIM Rates Between General Rate Proceedings").

Q. What is the potential outcome of allowing the Company to collect lost revenues related to energy efficiency through the Residential Customer Charges, assuming such a request was approved by the Commission?

A. As explained by Mr. Woolf, increased Customer Charges will likely result in increased energy consumption over the baseline. As a consequence, the Company will be required to build additional facilities to meet the increased load, increasing costs for customers.[43] Alternatively, by recovering lost revenues related to MEEIA programs through the DSIM (a variable energy based-charge), the Company is more likely to avoid such increases in consumption and subsequent investments in additional facilities. Revenue recovery through the DSIM is far more in line with public policy goals than recovery through Customer Charges not only because of the DSIM's direct connection to MEEIA programs, but because the DSIM's design acknowledges the relationships between costs borne by customers, energy efficiency, and the Company's investments.

3. EFFECTS ON LOW-INCOME CUSTOMERS

Q. How does Mr. Rush characterize the potential impacts of the Company's rate proposal on low-income customers?

A. Mr. Rush attempts to distinguish between "low-income" and "low-usage" customers on pages 67 through 70 of his testimony, in main part with the argument, "According to our evaluation, low-income customers have usage levels **similar to the residential class at large**" (emphasis added).[44]

[43] Woolf, page 21-22, lines 20-21 and 1-3.
[44] Rush, page 67, lines 9-10.

Q. What is his evidence?

A. Mr. Rush cites two sources. The first is a study by Serj Berelson of Opower published in the 2014 summer conference proceedings from the American Council for an Energy-Efficient Economy ("ACEEE");[45] the second source consists of Company data comparing annual energy use by customers receiving aid from the Low Income Home Energy Assistance Program ("LIHEAP") to energy use by, "… a random sample of residential customers."[46] Mr. Rush characterizes LIHEAP aid as, "… an established means to determine income levels."[47]

Q. Do you have any concerns with the manner in which Mr. Rush uses the paper by Mr. Berelson?

A. I do not disagree in principle with Mr. Rush's use of the paper in question, as it contains many useful statistics and facts about low-income energy use and efficiency programs in general. However, I am concerned about Mr. Rush's selective use of a chart from page 7-36 of Mr. Berelson's paper (Figure 3, "Low-income Electricity Consumption Varies Widely")[48] as part of his argument subsequently incorporating the Company's LIHEAP data.

[45] Berelson, Serj, 2014, "Myths of Low-Income Energy Efficiency Programs: Implications for Outreach," 2014 American Council for an Energy-Efficient (ACEEE) Economy Summer Study on Energy Efficiency in Buildings, (ACEEE). Retrieved from http://aceee.org/files/proceedings/2014/data/index.htm.
[46] Rush, page 68, lines 1-5.
[47] *Ibid*, line 4.
[48] See Rush, page 67, lines 13-15, and page 68.

Q. Why do you believe Mr. Rush's use of this chart was "selective?"

A. When taken out of context from the paper by Mr. Berelson, the chart seems to support Mr. Rush's claim that "low-income" and "low-usage" are not equivalent. However, this misses other crucial points from the paper, such as:

- Less than 25% of eligible households receive LIHEAP aid;[49]
- Low-income households have diverse socioeconomic characteristics;[50]
- Low-income customer energy use can vary geographically; in particular, "…relatively high low-income usage appears to be concentrated in the East and Midwest. Differences in housing stock and reliance on energy-intensive heating and cooling units in low-income homes in those areas provide two potential explanations for this finding;"[51] and,
- Energy use between income groups can vary within a utility's service territory.[52]

In other words, Mr. Rush's isolated use of the chart does not establish its applicability to the Company's situation or approach the complicated issues underlying low-income energy use.

Q. Does the Company data provided by Mr. Rush sufficiently justify his claims pertaining to low-income energy use?[53]

A. No. I do not believe the data provided is sufficient because it is not appropriate to a) use customers receiving LIHEAP aid as a proxy for low-income customers and b) to compare the energy use of such customers to the energy use of the Residential class as a whole.

[49] Berelson, page 7-32.
[50] *Ibid*, pages 7-33 through 7-35.
[51] *Ibid*, page 7-36.
[52] *Ibid*, page 7-37.
[53] See Rush, page 68, lines 1-6, and page 69.

Both of these considerations are particularly important given the points cited from the Berelson paper above.

Q. Why is the use of customers receiving LIHEAP aid an inappropriate proxy for low-income customers?

A. As noted in the Berelson paper cited by Mr. Rush, the majority of LIHEAP-eligible households do not receive such aid.[54] It is conceivable that LIHEAP aid actually alters demand patterns of low-income recipients, since the aid cannot be used for other purposes and subsequently increases their available income. Thus, to assume that LIHEAP aid recipients completely represent the low-income population leads to a biased sampling of that group, as well as a possible misrepresentation of low-income customers' electricity use.

Q. Mr. Rush states that the Company, "… found little research on the topic" of low-income energy use.[55] Do you have another source of information, particularly in light of the above concerns regarding the adequacy of his discussion?

A. While we lack information specific to KCP&L in this regard, DE is aware of region-specific data on consumption and expenditures from the U.S. Department of Health and Human Services through the "LIHEAP Home Energy Notebook for Fiscal Year 2011." Based on data from the U.S. Energy Information Administration's Residential Energy Consumption Survey, this data indicates that the average household consumption of

[54] Berelson, page 7-32.
[55] Rush, page 67, lines 12-13.

electricity in the Midwest and the U.S. was as follows during the period examined (in million British Thermal Units):[56]

Area	All Households	Non-Low-Income Households	Low-Income Households	LIHEAP Aid Recipient Households
United States	115.4	120.1	105.5	117.9
Midwest Census Region	132.5	137.0	124.7	136.6

In contrast to the data presented by Mr. Rush, the above statistics indicate lower average consumption of electricity by low-income households in the Midwest compared to average Midwestern households as a whole, and even lower consumption in comparison to average non-low-income households. By contrast, the average electricity consumption of LIHEAP-recipient households in the Midwest is higher than that of average low-income households and is more comparable to the average consumption of all Midwestern households and non-low-income households. The consumption of electricity by average Midwestern LIHEAP-recipient households is even higher in comparison to the various types of average U.S. households.

[56] U.S. Department of Health and Human Services, Administration for Children and Families, Office of Community Services, Division of Energy Assistance, LIHEAP Home Energy Notebook for Fiscal Year 2011, June 2014, Appendix A, Table A-2, page 93. Retrieved from https://www.acf.hhs.gov/sites/default/files/ocs/fy2011_hen_final.pdf.

Q. Given this data, do you agree with Mr. Rush's statement that, "…we acknowledge that there are low-income customers who will be impacted at a greater level than the typical customer?"[57]

A. Yes; such a concession is certainly understandable in light of the preceding discussion regarding higher bill impacts to low-use customers and the federal data on Midwestern electricity consumption.

Q. How would the fact that low-income customers also tend to use less electricity relate to the energy efficiency aspect of the Company's proposal?

A. As noted above, Residential Customer Charges (i.e., fixed charges) would increase under the Company's proposal; such an increase in fixed charges tends to provide the opposite incentive required to encourage energy efficiency, more so for lower-use customers. Thus, to the extent that low-income customers are low-use customers – contrary to the assertions by Mr. Rush – the increased Customer Charges would provide a price signal more heavily discouraging energy efficiency in comparison to higher-use customers.

Q. Did the Company analyze how increasing its Residential Customer Charges would affect affordability for its customers?

A. According to Dr. Dismukes, the Company responded to a data request by OPC that, "... it has performed no specific analyses regarding the impacts that its rate design proposals may have on customer affordability."[58]

[57] Rush, page 69, lines 2-3.
[58] Diskmukes, page 37, lines 15-16 and footnote 53.

C. DE'S PROPOSAL REGARDING RESIDENTIAL CUSTOMER CHARGES

Q. What is DE proposing with respect to the Residential Energy Charges and the Residential Customer Charges?

A. DE's primary recommendation with respect to the Residential Customer Charges is that they not be increased; to the extent any revenue increase is approved, any net increase should apply to the Energy Charges. The discussion above illustrates that the Company's focus on increasing Customer Charges provides the opposite price signal needed to encourage energy efficiency. DE contends that the Company's proposal to increase Residential Customer Charges in this rate case should be rejected because of the proposal's inconsistency with energy efficiency goals noted by the Commission in its Report and Order in both the Company's last rate case and the recent Ameren Missouri rate case, as well as the inconsistency of the Company's proposal with the policy goals of MEEIA. The Company's proposal also fails to adequately address potential impacts on low-income customers.

DE also reiterates that the Commission did not approve the Company's previous request for a far more modest increase to its Residential Customer Charges in its previous rate case, and that the Commission did not grant any such requests with respect to the Residential Customer Charges of the general use rate schedules for numerous electric utilities over the past several years. The Company's proposal (at the $25.00 level) would also place its Residential Customer Charge above that of all the other Midwestern utilities surveyed by Dr. Dismukes.[59]

[59] *Ibid*, page 15, lines 6-10.

Q. If the Commission determines that the Residential Customer Charges should increase, how would DE suggest such an increase take place?

A. Should the Commission decide to increase the Company's Residential Customer Charges at all, the Residential Customer Charges should increase by no more than the percentage increase in the Residential Energy Charges to avoid rate shock. However, DE strongly prefers no increase to the Residential Customer Charges at all.

Q. Are DE's recommendations supported by the Direct Testimonies of other parties to this case?

A. Yes. Dr. Dismukes recommends no increase to the Customer Charges in this case,[60] a position with which we would concur with respect to the Residential Customer Charges. Staff recommends that Customer Charges, "... increase by the average increase for each applicable class;"[61] similarly, Mr. Woolf recommends that, "The Commission should require the Company to increase the residential customer charge and energy rate by the same amount, which should equal the amount that rates are increased for other classes."[62] DE would concur with the positions of Staff and Mr. Woolf with respect to the Residential Customer Charges only to the extent that any increase in the Residential Customer Charges is ordered by the Commission. Our first preference would align more closely with the position of Mr. Dismukes.

[60] *Ibid*, page 21, line 16.
[61] Staff's Rate Design and Class Cost-of-Service Report, page 3, lines 13-14.
[62] Woolf, page 4, lines 18-20.

IV. TIME-DIFFERENTIATED RATES

Q. What is the Company's proposal regarding its time-differentiated rates?

A. The Company proposes to freeze all four of its time-differentiated rates – Schedules RTOD, TPP, RTP, and RTP - Plus.[63] Mr. Rush states that, "The Residential TOU rate only has 38 customers and does not perform as it should;"[64] with regards to the Company's time-differentiated rate schedules for the Commercial and Industrial classes, he simply states, "Propose freezing or eliminating special rates not used or no longer functional."[65] When one reaches his attached summary of proposed tariff revisions, one finds the same general information with only slight variations: that the tariffs are proposed for freezing and, "... are not properly designed, resulting in little customer participation and questionable benefit to the Company. Rate redesign is planned."[66]

Q. Does DE agree with the Company's proposal to freeze its time-differentiated rates?

A. No. As discussed by Dr. Dismukes with respect to Schedule RTOD, the Company does not provide any suggested changes to the tariff, despite the suggestion of such changes "… at some undefined point of time in the future."[67] Dr. Dismukes also notes that the Company's proposal runs counter to its stated intentions regarding rate design and price signaling, since Schedule RTOD is supposed to be based on, "… cost changes across the

[63] Rush, page 59, lines 12-14, page 66, lines 8-9, and Schedule TMR-10, pages 1 and 3, column B.
[64] *Ibid*, page 66, lines 8-9.
[65] *Ibid*, page 59, line 14.
[66] *Ibid*, Schedule TMR-10, pages 1 and 3, columns B and C.
[67] Dismukes, page 33, lines 7-11.

various hours of the day."[68] DE disagrees with the Company's proposal regarding its other time-differentiated rates on the same grounds.

Q. What is DE's proposal with respect to the Company's time-differentiated rates?

A. DE concurs with Dr. Dismukes that, "The Commission should reject the Company's [Residential] TOU rate proposal and require the Company to re-file a modified and improved TOU tariff in its next rate case."[69] Similarly, DE recommends that the Commission reject the Company's proposal to freeze its other time-differentiated rate schedules (Schedules CPP, RTP, and RTP - Plus) and instead require the Company to submit revised tariffs and supporting documentation in its next rate case. This proposal will maintain the availability of these rate schedules for new customers interested in realizing energy efficiency gains based on detailed Energy Price signals while simultaneously giving the Company a path to improving the tariffs.

V. CLEAN CHARGE NETWORK

A. OVERVIEW OF THE COMPANY'S REQUEST

Q. What is the Company's Clean Charge Network initiative?

A. The Clean Charge Network initiative, as described by Company witness Darrin R. Ives in his Supplemental Direct Testimony,[70] involves the installation and operation by the Company of over 1,000 electric vehicle charging stations in the Kansas City metropolitan

[68] *Ibid*, lines 11-18.
[69] *Ibid*, lines 18-19.
[70] Missouri Public Service Commission Case No. ER 2014-0370, *In the Matter of Kansas City Power & Light Company's Request for Authority to Implement A General Rate Increase for Electric Service*, Supplemental Direct Testimony of Darrin R. Ives On Behalf of Kansas City Power & Light Company, February 6th, 2015.

area, including 15 "fast charging" stations that will provide 80 percent of an electric vehicle's full charge in almost 30 minutes.[71]

Q. How will payment for the charging station installations and the electricity provided from the stations take place?

A. The Company intends to "install and operate"[72] these charging stations, allowing electric vehicle drivers (i.e., "end use customers") to charge for free during a pilot phase.[73] Mr. Ives makes it clear that the "host sites" of these charging stations and the partner for the Company's fast chargers, Nissan Motor Company ("Nissan"), will pay for this electricity:

> The host sites' charging station energy usage will be separately metered; electricity costs for charging station usage will be paid, through the partnership with Nissan for the fast charging stations and by the hosts for the remainder of the charging stations, at standard tariff rates.[74]

Q. What reasons are presented by the Company for undertaking this initiative?

A. The Company cites numerous benefits, including reduced emissions,[75] reduced "range anxiety" for electric vehicle owners,[76] and reduced electricity costs for ratepayers;[77] Mr. Ives also indicates the Company's willingness to investigate possible demand-side management and vehicle-to-grid applications.[78]

[71] *Ibid,* pages 1-2, lines 14-19 and 1-7.
[72] *Ibid,* page 1, line 9.
[73] *Ibid,* page 2, lines 11-12.
[74] *Ibid,* lines 12-16.
[75] *Ibid,* page 3, lines 4-10.
[76] *Ibid,* lines 11-12.
[77] *Ibid,* lines 12-15.
[78] *Ibid,* lines 17-19.

Q. Did the Company analyze and determine the existence of the potential for benefits to the public resulting from this initiative?

A. Yes. Mr. Ives cites the Company's collaboration with electric industry experts, several reports related to electric vehicles, a presentation from ChargePoint, and data from existing Company charging stations.[79]

B. POTENTIAL BENEFITS OF THE CLEAN CHARGE NETWORK

Q. How would the Clean Charge Network provide benefits to ratepayers in terms of cost reductions?

A. Mr. Ives states that, "As more drivers adopt electric vehicles ... the cost of operating and maintaining the electrical grid will be spread over increased electricity usage."[80] This relates to the most basic mechanics of cost recovery: as more end users connect to the Company's system to charge their vehicles, the increase in energy consumption will result in a decreased revenue requirement per unit of energy.

Q. Does this run counter to the statutory mandate of MEEIA to achieve "all cost-effective demand-side savings?"

A. No. An increase in electricity consumption is not equivalent to a decrease in energy efficiency. Energy efficiency is typically measured in terms of the amount of energy required (i.e., electricity consumed) to provide a good or service (i.e., vehicle miles traveled).[81] An increase in electricity consumption to provide power for electric vehicle

[79] *Ibid*, pages 3-4, lines 20-23 and 1-22.
[80] *Ibid*, page 3, lines 12-15.
[81] U.S. Energy Information Administration, "Glossary," Accessed May 3rd, 2015. Retrieved from http://www.eia.gov/tools/glossary/index.cfm.

travel does not necessarily entail a decrease in cost-effective demand-side savings; such an assumption incorrectly assumes that consumption is the polar opposite of efficiency.

In addition, Mr. Ives indicates the Company's willingness to pursue, "… integrated management of the Clean Charge Network …" and, "… possibilities for vehicle to grid programs …,"[82] both of which would allow for load shifting or demand response and decrease the demand placed on the Company's infrastructure. Such programs would not only lead to additional savings for customers, but would also be allowed under the definitions of "demand response" and "demand-side program" at §§393.1075.1(2) and 393.1075.1(3) RSMo, respectively.[83]

Q. Could the Clean Charge Network provide economic development benefits to the Kansas City metropolitan area?

A. Yes. As indicated by the supporting statements of several state and local leaders cited in the Company press release attached to Mr. Ives's testimony – including Governor Jay Nixon and Kansas City Area Development Council President and CEO Bob Marcusse – the Clean Charge Network could improve the economic viability of the city's automotive industry and the region as a whole.[84]

[82] Ives, page 3, lines 17-19.
[83] §393.1075.1(2) "Demand response", **measures that decrease peak demand or shift demand to off-peak periods**;
(3) "Demand-side program", any **program conducted by the utility to modify the net consumption of electricity on the retail customer's side of the electric meter, including but not limited to** energy efficiency measures, **load management, demand response**, and interruptible or curtailable load .... (Emphasis added.)
[84] Ives, Schedule DRI-1, pages 6-7.

Q. How could the Clean Charge Network result in reduced air pollution emissions?

A. When end use customers transition from the use of petroleum-based fuels to electricity as a source of transportation energy, the emissions attributable to these customers' vehicular travel will be shifted from non-point sources to point sources (i.e., from vehicles to electric generation units). There are three benefits to this shift:

1. The emissions attributable to end use customers' vehicular travel are decreased, depending on the electricity generation portfolio of the region; the reduction in emissions from the use of electric-only vehicles (e.g., an all-electric Nissan Leaf) compared to "plug-in hybrid electric vehicles" (e.g., a Ford Fusion Energi Plug-In Hybrid), conventional hybrid vehicles (e.g., a Toyota Prius), and typical gasoline-fueled vehicles also varies, again by region. Based on a comparative tool from the U.S. Department of Energy's Alternative Fuels Data Center and several downtown Kansas City zip codes, it is likely that the use of an electric vehicle would result in lower annual carbon dioxide emissions than the use of a conventional gasoline-fueled vehicle.[85] This would likely hold true for emissions of other pollutants as well, such as nitrous oxides and sulfur dioxides.
2. Any shift towards electric generating sources with lower air pollution emissions would result in even lower emissions attributable to the use of electric vehicles. The information from the Alternative Fuels Data Center cited above includes a comparison between the carbon dioxide emissions attributable to electric-only, plug-in hybrid, conventional-hybrid, and gasoline-only vehicles based on the

[85] U.S. Department of Energy, Alternative Fuels Data Center, "Emissions from Hybrid and Plug-In Electric Vehicles," January 21st, 2015. Retrieved from http://www.afdc.energy.gov/vehicles/electric_emissions.php.

national average electric generation portfolio. Given that this national portfolio reflects a lower average percentage of electric generation from coal than that in the downtown Kansas City area (i.e., the Company's service territory), it is not surprising that electric-only vehicles are attributed with the lowest carbon dioxide emissions of the four vehicle types.[86] Additionally, as mentioned in Mr. Ives's testimony[87] and the Company's recent Integrated Resource Plan filing,[88] KCP&L will no longer burn coal at three of its units as of 2021 and will add solar and wind capacity during its planning horizon.[89] This will result in a generation portfolio associated with lower air pollution emissions than the Company's current mix, in turn providing end use customers using the Company's charging stations with an even lower-emissions source of transportation energy compared to what may already be anticipated.

3. The Company's modified generation portfolio, the Clean Charge Network initiative, and the reduction in emissions associated with the transportation and electric power sectors will assist the Company, the Kansas City metropolitan area, and the State of Missouri in attaining compliance with current and upcoming federal environmental regulations, such as the proposed ground-level ozone rules under the Clean Air Act. Allowing the Company to prudently build its

[86] *Ibid*.
[87] Ives, page 3, lines 5-7.
[88] M*issouri Public Service Commission Case No. EO-2015-0254, In the Matter of the Resource Plan of Kansas City Power & Light Company Pursuant to 4 CSR 240-22*, Kansas City Power & Light Company (KCP&L) Integrated Resource Plan, Volume 1 - Executive Summary, April 1st, 2015, pages 15-16.
[89] *Ibid*.

infrastructure in this manner could save money on environmental compliance in the long run while providing public health benefits.

C. THE COMMISSION'S STATUTORY AUTHORITY AND COST RECOVERY FOR THE CLEAN CHARGE NETWORK

Q. Does the Commission have the authority to regulate the Clean Charge Network?

A. Yes. Under §386.250.1 RSMo:

> The jurisdiction, supervision, powers and duties of the public service commission herein created and established shall extend under this chapter:
>
> (1) **To the manufacture, sale or distribution of** gas, natural and artificial, and **electricity for light, heat and power, within the state, and to persons or corporations owning, leasing, operating or controlling the same**; and to gas and electric plants, and to persons or corporations owning, leasing, operating or controlling the same …. (Emphasis added.)

Since the Company is selling and distributing electricity to electric vehicle charging stations at host sites – and, ultimately, to electric vehicles – the Commission has clear statutory jurisdiction.

Q. Would the electric vehicle charging stations in the Clean Charge Network constitute electrical structures which permanently serve customers under statute?

A. Yes. According to §393.106.1 RSMo, "permanent service" and "structures" are defined as follows:

> (1) "Permanent service", electrical service **provided through facilities which have been permanently installed on a structure** and which are designed to

provide electric service for the structure's anticipated **needs for the indefinite future** …;

(2) "Structure" or "structures", an agricultural, residential, commercial, industrial or other building **or a mechanical installation, machinery or apparatus at which retail electric energy is being delivered through a metering device which is located on or adjacent to the structure and connected to the lines of an electrical supplier**. Such terms **shall include any contiguous or adjacent additions to or expansions of a particular structure**. … (Emphasis added.)

An electric vehicle charging station installation with a separate meter would easily fit the definition of a "structure" as, "… a mechanical installation, machinery or apparatus at which retail electric energy is being delivered through a metering device which is located on or adjacent to the structure and connected to the lines of an electrical supplier." These structures are also clearly intended to provide "permanent service," i.e., "… electrical service provided through facilities which have been permanently installed on a structure …."

Q. Should the Company be able to recover the expenses related to the Clean Charge Network in certain base rates?

A. In principle, yes. As established above, the Clean Charge Network falls under the Commission's jurisdiction via §386.250.1 RSMo and will involve permanent structures (i.e., electric vehicle charging stations) which will provide separately metered service to the host sites and end use customers, as defined under §393.106.1 RSMo. To the extent that the Clean Charge Network is installed, placed in service, "used and useful," and the

costs of such installation are prudently incurred, the expenses related to its installation should be recovered through specific cost-based rates.

Q. Why should the Company be able to recover costs related to the Clean Charge Network "in principle?"

A. Several parties to this case noted accounting-related concerns pertaining to the Company's proposal, including Staff in its Revenue Requirement and Cost of Service Report,[90] OPC witness William Addo,[91] and Midwest Energy Consumers' Group and OPC witness Lane Kollen.[92] DE is not prepared to offer recommendations related to the particular accounting treatment of the Clean Charge Network in this case, as further described below.

Q. Should expenses related to the Clean Charge Network be recovered from all ratepayers?

A. No. Expenses related to the Clean Charge Network passed through base rates should be collected from those host sites and/or end use customers to whom service is provided (i.e., in a "cost-based" manner), subject to caveats such as those described previously and the requirement to avoid unjust and unreasonable charges. In particular, §393.130.1

[90] Missouri Public Service Commission Case No. ER 2014-0370, *In the Matter of Kansas City Power & Light Company's Request for Authority to Implement A General Rate Increase for Electric Service*, Staff Report – Revenue Requirement and Cost of Service, April 2nd, 2015, page 209, lines 1-10.

[91] Missouri Public Service Commission Case No. ER 2014-0370, *In the Matter of Kansas City Power & Light Company's Request for Authority to Implement A General Rate Increase for Electric Service*, Direct Testimony of William Addo Submitted on Behalf of the Office of the Public Counsel, April 2nd, 2015, page 36, lines 1-7.

[92] Missouri Public Service Commission Case No. ER 2014-0370, *In the Matter of Kansas City Power & Light Company's Request for Authority to Implement A General Rate Increase for Electric Service*, Direct Testimony and Exhibits of Lane Kollen On Behalf of the Midwest Energy Consumers' Group and the Missouri Office of the Public Counsel, April 2nd, 2015, page 28, lines 2-10 and 20-21.

RSMo provides that, "All charges made or demanded by any such … electrical corporation … for … electricity … or any service rendered or to be rendered **shall be just and reasonable** and not more than allowed by law **or by order or decision of the commission**" (emphasis added).

Q. Does the Company provide a model for how to recover expenses related to the Clean Charge Network only from customers who use the charging stations – i.e., in a manner which is "just and reasonable?"

A. Yes. Mr. Ives indicates that Nissan and the host sites with which the Company will partner will pay for the electricity consumed by end use customers at "standard tariff rates" during the Clean Charge Network's pilot phase.[93] DE recommends that this method of cost recovery be allowed in the pilot phase of the Clean Charge Network.

Q. At the end of the pilot phase, how should the cost of electric service at these charging stations be recovered?

A. Either a model under which the host site or the end user pays for service could be acceptable to DE. The Commission should require that, as a condition of approving the Clean Charge Network pilot, the Company shall propose tariffs to address this issue in the context of a rate case, with the resulting tariffs to be in effect in advance of the end of the pilot program.

[93] Ives, page 2, lines 12-16.

D. DISAGREEMENT WITH STAFF'S POSITION

Q. What is Staff's position in its Revenue Requirement and Cost of Service Report regarding the Clean Charge Network?

A. Staff believes that the Clean Charge Network initiative, "… is an activity that should not be subject to Commission regulation and … recommends that the Commission not include any amount in KCPL's cost of service in this case for the expenses for the Clean Charge Network."[94] Nonetheless, Staff indicates its support for the Clean Charge Network itself.[95]

Q. In light of Staff's statement that the Clean Charge Network should not be regulated by the Commission, is §386.250.1 RSMo addressed in Staff's report with respect to the Clean Charge Network?

A. No. However, Staff attempts to raise concerns related to the prior existence of other electric vehicle charging stations owned by the Company or other entities in the Kansas City area, the regulation of electric vehicle charging stations in other states, and regulatory uncertainty should the Commission exercise its jurisdiction.[96] Interesting as these considerations may be, the prior regulation of charging stations (or lack thereof) in the Kansas City area, the State of Missouri, or any other state is irrelevant to the Commission's statutory authority under §386.250.1(1) RSMo to regulate, "…the manufacture, sale or distribution of … electricity for light, heat and power, within the state, and to persons or corporations owning, leasing, operating or controlling the same …."

[94] Staff Report – Revenue Requirement and Cost of Service, page 204, lines 16-19.
[95] *Ibid*, lines 19-20.
[96] *Ibid*, pages 205-207 and 208, lines 17-21, 1-22, 1-12, and 23-29.

Q. Does DE concur with Staff's concern regarding the lack of detailed demand-side management planning by the Company with respect to the Clean Charge Network?[97]

A. No. The Company has indicated its willingness to investigate demand-side management and vehicle-to-grid opportunities.[98] While Staff is correct that off-peak charging may shift load in a manner which requires additional infrastructure investment,[99] it is premature to reject the proposal based on a perceived lack of demand-side management initiatives related to a nascent market.

Q. How does Staff address the emissions attributable to the transportation and electric power sectors resulting from the Clean Charge Network Initiative?

A. Staff states that vehicle emissions may decrease, but power plant emissions will not decrease despite the possibility of a net decrease in emissions. Staff's position is qualified based on pending environmental regulations, vehicle miles traveled, charge loading, and generation facility operations. However, Staff provides no estimates of the changes in emissions resulting from the use of an electric-only vehicle in the Company's territory compared to any other type of vehicle.[100]

Q. Does DE agree with Staff's considerations?

A. DE agrees that pending environmental regulations, variations in vehicle miles traveled, and the interactions between electric vehicle charging loads and generation facility operations may have significant effects on the total emissions attributable to the

[97] *Ibid*, pages 209-210, lines 11-26 and 1-2.
[98] Ives, page 3, lines 17-19.
[99] Staff Report – Revenue Requirement and Cost of Service, page 209, lines 12-17.
[100] *Ibid*, page 210, lines 3-8 and footnotes 131 and 132.

transportation and electric power sectors in the Kansas City metropolitan area resulting from the Clean Charge Network.

Q. What is Staff's position with regards to the Clean Charge Network and the Commission's Promotional Practice rules?

A. Staff believes that the Clean Charge Network violates the Commission's Promotional Practice rules, citing the rules at 4 CSR 240-3.100, 4 CSR 240-3.150, 4 CSR 240-14.010, 4 CSR 240-14.010, 4 CSR 240-14.020, and 4 CSR 240-14.030. Staff alleges that the Clean Charge Network is either a prohibited Promotional Practice or, if it is an exempted Promotional Practice, must conform to certain standards.[101]

Q. What constitutes a prohibited Promotional Practice?

A. Both 4 CSR 240-3.100(13) and 4 CSR 240-14.010(6)(L) define promotional practices using nearly the same language; in pertinent part, 4 CSR 240-3.100(13) states:

> **Promotional practices** means any **consideration** offered or granted by an electric utility or its affiliate to any person **for the purpose, express or implied, of inducing the person to select and use the service or use additional service of the utility or to select or install any appliance or equipment designed to use the utility service**, or for the purpose of influencing the person's choice or specification of the efficiency characteristics of appliances, equipment, buildings, utilization patterns or operating procedures. **The term promotional practices shall not include the following activities:** …

[101] *Ibid*, pages 210-213, lines 9-27, 1-25, 1-23, and 1-10.

> (C) **Providing** light bulbs, street or outdoor lighting service, **wiring, service pipe or other service equipment or appliances, in accordance with tariffs filed with and approved by the commission** …. (Emphasis added.)

"Consideration" is defined in exactly the same manner at 4 CSR 240-3.100(4) and 4 CSR 240-14.010(6)(C):

> Consideration shall be interpreted in its broadest sense and shall include any cash, donation, gift, allowance, rebate, discount, bonus, merchandise (new or used), property (real or personal), labor, service, conveyance, commitment, right or other thing of value ….[102]

Q. Given the above language, does DE agree that the Clean Charge Network will constitute a prohibited Promotional Practice?

A. No. The Company is not proposing to provide any "consideration" to its host site partners by installing and operating the chargers at the host sites during the pilot phase. On the contrary, the Company requests the recovery of costs related to the installation of the Clean Charge Network and explicitly states that it will "install and operate" these charging stations during the pilot phase. The charging stations do not resemble "donations" or "gifts" in any sense. Further, the electricity distributed through these charging stations, while provided for free to electric vehicle drivers during the pilot phase, is not provided for free to Nissan or the host sites, as noted above. To thus claim that the electrical service is also being provided as a "consideration" uses very liberal definitions of "free" and "gift" and confuses the electric vehicle drivers (the end use customers) with the paying customers (Nissan and the host sites) during the pilot phase.

[102] As per 4 CSR 240-14.010(6)(C).

E. DE'S PROPOSAL REGARDING THE CLEAN CHARGE NETWORK

Q. What is DE's general proposal with regards to cost recovery for the Clean Charge Network?

A. In principle, DE supports the recovery of prudently incurred costs related to the Clean Charge Network. The Clean Charge Network, as discussed above, is not covered by the Commission's Promotional Practice rules, since the Company plans to own the individual charging stations and the electricity provided by these charging stations will be paid for by parties other than the Company during the pilot phase of the initiative (i.e., the host sites and Nissan).

In addition, the charging stations will bring numerous benefits to the Company's service territory and the Kansas City metropolitan area as a whole, as described above and in Mr. Ives's testimony. Such benefits include the potential for spreading the Company's fixed cost recovery across more ratepayers, increasing economic development in the Kansas City metropolitan area, and reducing total air pollution emissions from the transportation and electric power sectors as end use customers charge their vehicles with electricity generated from the cleaner energy sources which KCP&L intends to acquire, such as wind and solar photovoltaic power.

Consequently, DE recommends that the Commission remain open in principle to the recovery of expenses related to the Clean Charge Network.

Q. Why do you state that DE supports cost recovery related to the Clean Charge Network "in principle?"

A. As discussed above, several parties to this case noted accounting-related concerns pertaining to the Company's proposal. DE is not prepared to offer recommendations

related to the particular accounting treatment of the Clean Charge Network in this case; consequently, DE does not offer any recommendation to the Commission as to what particular expenses related to the Clean Charge Network should or should not be allowed. However, DE recommends that the Commission remain open in principle to the recovery of such expenses given the benefits described above, the Commission's clear statutory authority, and the fact that the initiative does not violate the Promotional Practice rules. Such cost recovery, as previously indicated, should occur primarily through standard rates collected from the host sites of the charging stations during the pilot phase of the Clean Charge Network, with the condition that the Company propose tariffs in the context of its next rate case to address the issue of cost recovery after the pilot phase of the initiative.

VI. CONCLUSIONS

Q. Please summarize your conclusions and the positions of DE.

A. DE recommends rejecting all of the Company's proposed increases to the Residential Customer Charges; in sharp contrast to the Commission's decision in the Company's immediately prior rate case, such increases would provide the opposite price signal needed to encourage energy efficiency for the Residential class. The Company's proposal is also based on the premise that lost revenues due to energy efficiency require recovery through ratemaking in general rate cases, when a recovery mechanism for such lost revenues resulting from Company-sponsored MEEIA programs exists through the Company's DSIM. Finally, the Company incorrectly characterizes the potential impacts of its proposal on low-income customers, potentially setting the stage for providing

incorrect price signals for those customers despite their need to engage in energy efficiency.

In addition, DE recommends that the Commission reject the Company's proposal to freeze its time-differentiated rates, since the Company has indicated that the rate schedules should instead be revised. In recognition of the energy efficiency benefits which time-differentiated rates provide, DE proposes that the Commission order the Company to instead submit revisions of Schedules RTOD, TPP, RTP, and RTP - Plus in its next general rate case.

Finally, DE supports the principle of cost recovery related to the Company's Clean Charge Network initiative, as the initiative will result in cost-related benefits to ratepayers, increased economic development in the Kansas City metropolitan area, and reduced total emissions from the transportation and electric power sectors. The Commission clearly has statutory authority over the electric vehicle charging stations in question, and the charging stations will not violate the Promotional Practice rules. As a condition of approving any cost recovery from the host sites of the Clean Charge Network's charging stations during the initiative's pilot phase, the Commission should also require the Company to address the issue of cost recovery after the pilot phase of the initiative.

Q. Does this conclude your rebuttal testimony in this case?

A. Yes.