Exhibit No.:

Issue(s): Response to Commission

Witness/Type of Exhibit: Sponsoring Party:

Case No.:

Directed Questions
Marke/Direct
Public Counsel
ER-2016-0285

DIRECT TESTIMONY

OF

GEOFF MARKE

Submitted on Behalf of The Office of the Public Counsel

KANSAS CITY POWER & LIGHT COMPANY

Case No. ER-2016-0285

December 14, 2016

BEFORE THE PUBLIC SERVICE COMMISSION OF THE STATE OF MISSOURI

In the Matter Light Compa Implement A Electric Servi	ny's Request General Rat	for Auth	nority to))	Case No. ER-2016-0285			
AFFIDAVIT OF GEOFF MARKE								
STATE OF M	MISSOURI)						
COUNTY OF	COLE) ss)						
Geoff N	Marke, of law	ful age a	nd being firs	t duly sworn,	deposes and states:			
	My name is Oublic Couns		ırke. I am a	Regulatory E	Economist for the Office of the			
2. A	Attached here	to and ma	ade a part he	reof for all pu	urposes is my direct testimony.			
					nts contained in the attached nowledge and belief.			
				Luft Geoff Mar Regulatory	ke Economist			

Subscribed and sworn to me this 14th day of December 2016.

NOTARY SEAL S JERENE A. BUCKMAN . My Commission Expires August 23, 2017 Cole County Commission #13754037

Jerene A. Buckman Notary Public

My Commission expires August 23, 2017.

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DIRECT TESTIMONY

OF

GEOFF MARKE

KANSAS CITY POWER & LIGHT COMPANY

CASE NO. ER-2016-0285

I.	INTRODUCTION

Q.	Please state	vour name.	title and	business	address.
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- A. Geoff Marke, PhD, Economist, Office of the Public Counsel (OPC or Public Counsel), P.O. Box 2230, Jefferson City, Missouri 65102.
- Q. Are you the same Dr. Marke that filed direct "revenue requirement" testimony in ER-2016-0285?
- 7 A. Yes.

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Q. What is the purpose of your rebuttal testimony?

- A. To respond to the Commission's order directing consideration of certain questions in testimony. Specifically:
 - Installation of advanced metering infrastructure ("AMI") for residential and commercial customers;
 - Plug-in electric vehicle ("EV") rates;
 - Optional residential time-of-use rates (hourly) and time-of-day rates;
 - Property Assessed Clean Energy programs ("PACE"); and
 - Pay As You Save programs ("PAYS").

II. RESPONSE TO COMMISSION DIRECTED QUESTIONS

Installation of advanced metering infrastructure ("AMI") for residential and commercial customers

Q. What is OPCs position on AMI for residential and commercial customers?

As a general concept, a plausible economic case may be made for the deployment of AMI technology coupled with an easily understood and accepted time-of-use ("TOU") rate design. However, according to the Brattle Group, about a third of all U.S. households are now receiving electric service through AMI but only 2% are buying the energy portion of their electric bill on a TOU plan. Absent a TOU rate design it becomes more difficult to cost justify the infrastructure on a stand-alone basis. Moreover, it is important to factor in the additional complementary costs that would necessitate successful full-scale AMI deployment such as modified or new customer information systems ("CIS"), consumer education and marketing, as well as security and privacy liability concerns. Any definitive answer on the appropriateness of full deployment would need to be judged on the individual merits and unique circumstances of the utility involved.

Timing, as it relates to the current useful life of meters presently in place would also need to be considered. Over a long enough timeline, AMI meters (or some more advanced technology) may prove to be the default option. Automatic meter reading ("AMR") technology could very well become obsolete in the future. However, today, Missouri stakeholders can observe lessons learned from other states farther along in this process and be prepared to act accordingly if the situation merits further consideration.

For KCPL, the time for an open and robust dialogue about expectations and parameters will likely begin in the near future presumably as the Company finishes its system-wide AMI and

¹ Farugui, A., R. Hledkick & N. Lessem (2014) Time-varying rates from the get-go—not just by opt-in. Smart by Default. *Public Utilities Fortnightly*. https://www.fortnightly.com/fortnightly/2014/08/smart-default

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CIS installation. As it stands, OPC takes no formal position at this time in regards to AMI deployment in the KCPL service territory.

Plug-in electric vehicle ("EV") rates

Q. What is OPCs position on plug-in EV rates?

A. OPC supports the use of a specialized plug-in EV rate to better reflect the real price of electricity. At this stage, a TOU rate similar to what is offered in the Commission's referenced Georgia Power rate design would appear to be a viable option.

As it stands, OPC has not formally proposed an EV-specific, TOU, opt-in rate in this case. We would be willing to provide input and participate in dialogue on the matter if other parties have specific proposals or if the Commission wishes to continue this discussion in a separate docket.

Optional residential time-of-use rate (hourly) and time-of-day rate

Q. What is OPCs position on TOU rates?

A. OPC supports the use of TOU rates on an opt-in basis; however, OPC has not developed a specific TOU rate for this case. We would be willing to provide input and participate in dialogue on the matter if other parties have specific proposals or if the Commission wishes to continue this discussion in a separate docket.

Property Assessed Clean Energy ("PACE")

Q. What is OPCs position on PACE?

A. To be clear, OPC does not believe that the PACE financing falls under the Commission's oversight. Missouri enacted PACE legislation in 2010 (HB 1692) that authorizes the formation of clean energy development boards by one or more municipalities for the purpose of establishing PACE programs (Section 67.2800 – 67.2835 RSMo). PACE programs allow

property owners to fund energy efficiency and renewable energy projects with little or no upfront costs. With PACE, eligible property owners living within a local government area that has adopted PACE can finance up to 100% of their project and pay it back over time as a voluntary property tax assessment through their existing property tax bill. Rather, PACE financing can best be understood as a complementary financing tool to promote utilities Commission-approved energy efficiency programs—primarily for commercial and industrial customers.² Where available, OPC supports the use of this financing option and has been a vocal advocate for its ability to enable upgrades in energy efficiency related activities. It has been OPC's experience that this perspective is shared amongst stakeholders (including KCPL) and is optimistic that PACE financing will enable more future cost-effective savings moving forward. OPC has no formal recommendations to the Commission regarding PACE financing.

Pay As You Save ("PAYS")

Q. What is OPCs position on PAYS?

A. OPC has taken a lead in researching and investigating the appropriateness of offering a PAYs tariff to ratepayers. PAYS is an on-bill loan, tariff-based financing system that utilities can use to enable ratepayers to have control over their electric bills through energy efficiency upgrades. Discussions are currently taking place to develop a financial feasibility study with one electric utility which, if successful, may be extended to other utilities if appropriate. OPC believes that the upfront capital costs are a major impediment to deep energy and demand savings on the residential side. This is especially true for low and middle income homeowners and renters. As articulated at a recent Commission Agenda, The PAYs tariff program has had quantifiable success for both utilities and ratepayers alike in economically-depressed regions of Kentucky, Kansas and Arkansas. If these results are transferable to Missouri it would help mitigate cost shifting expenditures for families that can least afford

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² It is OPC's understanding that PACE financing is largely unavailable to residential properties unless said property is wholly owned by the resident.

further electric burdens. As it stands, OPC plans to continue the investigation into this program with an acute focus on ensuring that appropriate consumer protections are maintained. OPC has no formal recommendations to the Commission regarding the PAYS tariff as it pertains to KCPL in the present case.

Q. Does this conclude your testimony?

A. Yes.

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