Exhibit No.:	______________
Issue(s):	Renewable Energy Credits ("RECs")
Witness/Type of Exhibit:	Marke/Rebuttal
Sponsoring Party:	Public Counsel
Case No.:	EO-2019-0067 (lead)
	EO-2019-0068 (consolidated)
	ER-2019-0199 (consolidated)

REBUTTAL TESTIMONY

OF

GEOFF MARKE

Submitted on Behalf of
The Office of the Public Counsel

KANSAS CITY POWER & LIGHT COMPANY

KCP&L GREATER MISSOURI OPERATIONS COMPANY

CASE NOS.:
EO-2019-0067 (lead)
EO-2019-0068 (consolidated)
ER-2019-0199 (consolidated)

** **
Denotes Confidential Information that has been Redacted

June 6, 2019

Public Version

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of the Eighth Prudence Review of Costs Subject to the Commission-Approved Fuel Adjustment Clause of KCP&L Greater Missouri Operations Company	)))))	**Case No. EO-2019-0067** **(Lead Case)**
In the Matter of the Second Prudence Review of Costs Subject to the Commission-Approved Fuel Adjustment Clause of Kansas City Power and Light Company	)))))	Case No. EO-2019-0068 (Consolidated)
In the Matter of the Application of KCP&L Greater Missouri Operations Company Containing its Semi-Annual Fuel Adjustment Clause True-Up	))))	Case No. ER-2019-0199 (Consolidated)

AFFIDAVIT OF GEOFF MARKE

STATE OF MISSOURI)
) ss
COUNTY OF COLE)

Geoff Marke, of lawful age and being first duly sworn, deposes and states:

1. My name is Geoff Marke. I am a Regulatory Economist for the Office of the Public Counsel.

2. Attached hereto and made a part hereof for all purposes is my rebuttal testimony.

3. I hereby swear and affirm that my statements contained in the attached testimony are true and correct to the best of my knowledge and belief.

Geoff Marke
Chief Economist

Subscribed and sworn to me this 6th day of June 2019.

NOTARY PUBLIC NOTARY SEAL STATE OF MISSOURI
JERENE A. BUCKMAN
My Commission Expires
August 23, 2021
Cole County
Commission #13754037

Jerene A. Buckman
Notary Public

My commission expires August 23, 2021.

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REBUTTAL TESTIMONY

OF

GEOFF MARKE

KANSAS CITY POWER & LIGHT COMPANY
KCP&L GREATER MISSOURI OPERATIONS COMPANY
CASE NOS. EO-2019-0067, EO-2019-0068, & ER-2019-0199

I. INTRODUCTION

Q. Please state your name, title and business address.

A. Geoffrey Marke, PhD, Chief Economist, Office of the Public Counsel ("OPC"), P.O. Box 2230, Jefferson City, Missouri 65102.

Q. What are your qualifications and experience?

A. I have been in my present position with OPC since 2014 where I am responsible for economic analysis and policy research in electric, gas and water utility operations.

Q. Have you testified previously before the Missouri Public Service Commission?

A. Yes. A listing of the cases in which I have previously filed testimony and/or comments before the Commission is attached in Schedule GM-1.

Q. What is the purpose of your rebuttal testimony?

A. The purpose of this testimony is to respond to the direct testimony of Kansas City Power & Light Company ("KCPL," "the Company," "KCPL-MO" or "KCP&L") witness Jeff Martin.

Q. What is Mr. Martin's recommendation?

A. Mr. Martin argues that the Commission should not adopt the Missouri Public Service Commission Staff's ("Staff") recommendation to disallow approximately $350,000 due to the Company's failure to sell Renewable Energy Credits ("RECs") prior to their expiration.

Q. What is the basis for Mr. Martin's objection to Staff's disallowance?

A. Mr. Martin's objection can be summarized as follows:

1. KCP&L had historically considered customer-financed renewable programs such as Ameren Missouri's "Pure Power" program, but ultimately elected to propose a Renewable Energy Rider and a Solar Subscription Pilot Rider instead;
2. KCP&L has some large customers who have announced corporate goals to reduce their carbon footprint consistent with the Corporate Energy Buyers' Principles;
3. The City of Kansas City announced a 40% greenhouse gas emission reduction;
4. 32% of KCP&L's Customer Advisory Panel said they were "very concerned about the environment;" and
5. Customers who generated monthly usage amounts of 1,000 kWh only experienced a $0.02 per month increase as a result of KCP&L's inaction.

Q. What is the OPC's response?

A. OPC rejects Mr. Martin's arguments and supports Staff's position. The rest of this testimony will respond to each of Mr. Martin's arguments in turn.

Q. What has been the impact on KCP&L of its decision to not sell the RECs?

A. Absent a finding of imprudence by this Commission, KCP&L's decision to sell or not sell the RECs has little to no impact on KCP&L since nearly all revenue from the sale of RECs passes through KCP&L's FACs to its customers.

Q. Does this testimony apply to just KCPL-MO?

A. No. While the prudence adjustment would apply only to KCPL-MO, the actions are common to both KCPL-MO and KCP&L Greater Missouri Operations Company ("KCPL-GMO"). Therefore, any Commission order regarding the future sale of excess RECs should apply to both KCPL-MO and KCPL-GMO.

II. RESPONSE TO HISTORICAL CONSIDERATION

Q. What is a Renewable Energy Credit ("REC")?

A. A Renewable Energy Credit ("REC") is a certificate corresponding to the environmental attributes of energy produced from renewable sources. RECs can be sold within compliance markets as a means to track progress towards and compliance with states' statutorily-enabled Renewable Energy Standards ("RES") or in a voluntary markets for customers who wish to claim renewable energy actions. Buying RECs allows an entity to support renewable energy without having to install solar panels or wind turbines. RECs can be purchased in one state and applied for compliance in another state. For example, a REC generating facility can be located in Florida, where the actual power produced goes to the local grid in Florida, but the credit for the "renewable attributes" of that power would be purchased by a Missouri utility and used to meet the Missouri RES. Thus, the REC represents a "societal benefit" as well as a tradeable commodity.[1] This is also known as an "unbundled" REC, as the energy produced from the REC is not physically delivered to the customers purchasing it.[2] The price of these RECs can vary greatly by resource type (e.g. wind, solar, hydro), from state to state and year to year, in part, due to a state's RES geographic sourcing conditions.[3]

Importantly, one can purchase a REC and can "claim emissions reductions" even if they do not actually reduce their end-use at all—or even increase it. The purchase of a REC does not necessarily mean that "new" renewable energy supply was created, often RECs

[1] To prevent "double counting" (in this scenario) the renewable energy produced in Florida cannot be counted for renewable compliance purposes in Florida as the REC has been sold to Missouri.
[2] As opposed to a bundled REC which are tied to the purchase of electricity.
[3] That is, a state's Renewable Energy Standard can be drafted to count RECs on more narrowly defined areas. For example: only in the state, only in surrounding states, only in a given utilities ISO region, or more broadly, from anywhere in the United States. In Missouri, RECs can be purchased for compliance anywhere in the United States, but RECs purchased in Missouri can claim additional "adder" compliance value. Unbundled RECs are almost always less expensive than producing the energy through renewable resources.

are sold from existing renewable energy sources and can be "banked" for up to three years. That fact will be addressed further in my testimony.

Q. What is Ameren Missouri's Pure Power program?

A. Ameren Missouri's Pure Power program is a voluntary customer offering that matches a customer's electricity usage with renewable power at a cost of 1 cent more per kilowatt-hour (kWh) towards the purchase of RECs. This amounts to a $10.00 increase in participating customer's bills for every 1,000 kWh that customer uses.[4] In other words, a REC purchased through Ameren Missouri's Pure Power program costs $10.00. [5]

Q. Why does Mr. Martin cite to it for support?

A. I am not sure. Mr. Martin states that historically, KCP&L did not have a clear need for a program like Ameren Missouri's Pure Power program stating:

> "Our customers were simply not seeking to purchase RECs."[6]

Q. Does Mr. Martin provide any support for that statement?

A. No.

Q. Is Ameren Missouri's Pure Power program subsidized by nonparticipants?

A. No. The program is not used to meet Missouri RES compliance, rather it is a value-added service for interested customers.

Q. Would a Pure Power-like program have been a better outcome than what Mr. Martin is proposing in this case?

A. Yes. A REC-based subscription program, like Pure Power, is designed to have its costs borne by those who want (or cause) it—the cost-causer. Mr. Martin is instead arguing that all ratepayers should bear the costs of the Company's imprudent actions because a subset of

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[4] Ameren Missouri Pure Power (2019) How does pure power work? https://www.ameren.com/missouri/company/environment-and-sustainability/pure-power
[5] Staff used a value of $0.48 per REC to determine its recommended prudence adjustment for KCPL.
[6] EO-2019-0067 Direct Testimony of Jeff Martin, p. 4, 13.

customers value renewables. Who those customers are, how much they value unbundled RECs as opposed to another option, or how much they are willing to pay is never broached.

Q. Does Mr. Martin cite to any other programs for historical consideration?

A. Yes. He cites to two KCP&L programs approved in the 2018 general rate cases, (Case No: ER-2018-0145 and ER-2018-0146) the Renewable Energy Rider and Solar Subscription Pilot Rider, as examples of more progressive programs for KCP&L customers to obtain RECs than a Pure Power-like program.

Q. Was OPC a signatory in support of those KCP&L programs?

A. Yes.

Q. What is the KCP&L Renewable Energy Rider program?

A. It is a <u>voluntary</u> power purchase agreement ("PPA") of utility-scale renewable energy for both KCPL's Missouri customers and KCP&L Greater Missouri Operations Company's ("KCPL-GMO") commercial and industrial customers of a certain size. The future utility-scale renewable energy facility will be sized to be between a 100 and 200 MW.

Q. Is KCP&L's Renewable Energy Rider program subsidized by nonparticipants?

A. No. Any energy cost and net revenues (positive or negative) attributable to the unsubscribed capacity will be borne by shareholders.

Q. What is the KCP&L Solar Subscription Pilot Rider?

A. It is a <u>voluntary</u> community solar program KCPL-MO and KCPL-GMO customers can enter into which consists of two systems up to 2.5 MWs each or one system up to 5.0 MWs.

Q. Is KCP&L's Solar Subscription Pilot Rider program subsidized by nonparticipants?

A. No. The program is designed to hold nonparticipants harmless with minimal risk.

Q. Please explain.

A. First, the program must obtain a 90% subscription threshold before it can be offered. Second, Shareholders bear 75% of the cost of any unsubscribed capacity and ratepayers bear the remaining 25%. Finally, the program is limited in size at this point as a pilot with future expansion dependent on the outcome of the agreed-to parameters in the non-unanimous stipulation and agreement in Case No: ER-2018-0145 and ER-2018-0146.

Q. Do you agree with Mr. Martin that KCP&L's new programs are more attractive options for customers than a subscription REC program like Ameren Missouri's Pure Power?

A. Yes. It has been OPC's experience that given the option, environmentally conscious customers would prefer pointing to a local project when it comes to renewable power. That is, they would prefer having rooftop solar on their premise or a solar scale facility in their service territory than a REC unit in Florida. Additionally, customers would like to know that their money is going to something that would otherwise not exist as a result of their action. Customers want to claim they are, in part, responsible for the development of new renewable energy supply. This is an especially important consideration for certain large customers and a point I will address in greater detail in the Corporate Energy Buyers Principles section of this testimony.

Q. Please summarize Mr. Martin's historical argument?

A. In providing some historical context for the value-added renewable energy options in Missouri Mr. Martin describes a menu of more attractive options that have been approved by the Commission in which customers can <u>voluntarily</u> elect to pay a premium for a more carbon-free customer experience while still adhering to the regulatory principle of cost-causation.

Q. What is your response?

A. The fact that Mr. Martin can cite at least three alternative options more favorable than the one he is arguing for is not a compelling argument for allowing cost recovery for revenues KCP&L determined it would not seek, but an argument in support of Staff's disallowance position. To be clear, the Company is seeking cost recovery for making the management decision to <u>not exercise</u> any of those articulated options in this case. Any one of those options would have been more optimal than what the Company elected to do—which was to not sell its RECs when it had the opportunity to do so.

III. RESPONSE TO CORPORATE ENERGY BUYERS PRINCIPLES

Q. What is the Corporate Energy Buyers Principles?

A. According to buyersprinciples.org:

> Corporate Renewable Energy Buyers' Principles
>
> A collaboration of leading companies seeking simplified access to the renewable electricity they need to meet their clean and low carbon energy goals. The project is facilitated by Renewable Energy Buyers Alliance.[7]

The Collaboration's "Buyers' Principles" outlines six criteria that can be summarized as follows:

1. Greater choice in procurement options;
2. More access to cost competitive options;
3. Longer-and variable-term contracts;
4. Access to new projects that reduce emissions beyond business as usual;
5. Increased access to third-party financing vehicles as well as standardized and simplified processes, contracts and financing for renewable energy projects; and
6. Opportunities to work with utilities and regulators to expand our choices for buying renewable energy.[8]

Q. Why does Mr. Martin cite to it for support?

A. I am not sure. The principles do not support Mr. Martin's argument or nullify the Company's imprudent actions.

[7] World Resources Institute (2019) Corporate Renewable Energy Buyers' Principles. https://buyersprinciples.org/principles/

[8] Ibid.

Q. Please explain.

A. Entering into a standalone REC agreement or an "unbundled" REC contract is inconsistent with the Buyers' Principles. An unbundled REC refers to RECs that are sold, delivered, or purchased separately from electricity. They are merely a tradeable, market-based instrument that represent the legal property rights to the "renewable-ness" not the actual physical delivery of electricity to customers purchasing the power. This is not "additional" renewable energy. An important tenant of the 4th principle:

> 4. Access to new projects that reduce emissions **<u>beyond business as usual</u>**.
>
> We would like our efforts to result in new renewable power generation. Pursuant to our desire to promote new projects, ensure our purchases add new capacity to the system, and that we buy the most cost-competitive renewable energy products, we seek the following:[9]

To provide an illustrative example of this principle in practice, consider two excerpts regarding renewable energy procurement policy from two for the largest corporate renewable energy buyers in the United States:

> <u>Walmart:</u>
>
> Renewable Energy Certificates (RECs) or other non-power instruments. We want to do more than just shift around ownership (and marketing rights) of existing renewable energy, so we have made a decision that under normal circumstances, we prefer not to simply offset our non-renewable power by purchasing standalone renewable energy credits (RECs) or other certificates. While REC purchasing may allow us to more quickly say we are supplied by 100% renewable energy, it provides less certainty about the change we're making in the world.
>
> **Walmart's preference is not to purchase standalone RECs to offset our nonrenewable power consumption for a number of reasons.**[10] (emphasis added)

[9] Ibid.
[10] Walmart's Approach to Renewable Energy. (2019) https://cdn.corporate.walmart.com/eb/80/4c32210b44ccbae634ddedd18a27/walmarts-approach-to-renewable-energy.pdf

> Google:
> Meeting our principles
>
> Given the background above, let's recall what Google seeks to accomplish with renewable energy purchases. There are two important goals:
>
> - **Our purchases should be additional. This means they should actually help to create more renewable power**.
> - Our investments should have the highest possible positive impact on the industry that they can.
>
> Additionality is a tricky concept. Perhaps it is easiest to give an example of what's not additional. Imagine a power company built a wind farm many years ago. They built it because they thought it was good business at the time, but the fact that it was a renewable resource was not important to their decision. They currently sell the power into the grid, and they're happy with their investment. Moreover, this power company has no plans to build any more wind farms. One day, they learn that Google is looking to purchase renewable electricity. The power company figures it could sell Google the output of their wind farm; for their existing customers they would just make up the difference by buying some other source of energy, perhaps from the coal plant down the street.
>
> **In our view, this is not additional**. We'd be handing money over for green electricity, but in the grand scheme of things, nothing would change. The carbon output of the whole system would be the same and no new renewable generation would get built.[11](emphasis added)

Q. Please summarize Mr. Martin's corporate renewable energy argument?

A. Mr. Martin cites to the Corporate Energy Buyers Principles and the fact that at least one large customer (Ford) has committed to such principles as evidence why the Commission should dismiss Staff's disallowance.

[11] Google (2013) Google's Green PPAs: What, How, and Why.. http://static.googleusercontent.com/media/www.google.com/en//green/pdfs/renewable-energy.pdf

Q. What is OPC's response?

A. The mere existence of the Corporate Energy Buyers Principles does not excuse an imprudent managerial decision. Especially when said decision does not conform to the Principles it cites to. This argument is without merit.

To be crystal clear, KCP&L not selling its RECs does not mean more renewable energy was produced. Furthermore, according to its 2019 RES Compliance Plans, the PPAs in which these RECs were generated in, were entered into for "economic reasons" not for some customers to meet their own self-imposed Corporate Energy Buyers Principles.[12]

IV. RESPONSE TO THE CITY OF KANSAS CITY'S EMISSION REDUCTION

Q. Please summarize the City of Kansas City's greenhouse gas emission reduction efforts.

A. The City of Kansas City's public municipal operations has cut its greenhouse gas emissions by 40% from 2000 emission levels. A press release, included in Mr. Martin's Schedule JM-1, cites eleven bulleted points of tangible actions made by the city's municipal operations to curb its carbon footprint. It is important to note that these actions do not reflect the entire metro population, only its public operations. Additionally, KCPL's non-sale of historic RECs is <u>not cited</u> as one of the eleven tangible actions undertaken to reduce emissions levels.

---

[12] EO-2019-0317. Kansas City Power & Light Company 2019 Annual Renewable Energy Standard Compliance Plan p. 8.

Q. Do you agree with Mr. Martin's statement that "A substantial portion of this [city of Kansas City municipal operations] reduction in greenhouse gas emissions can be attributed to KCP&L's increased use of renewables"?[13]

A. No. This statement has no bearing on the issue at hand—the non-sale of RECs. It is a nonsensical argument that is akin to claiming that the City of Kansas City's municipal operations are, in part, responsible for the KC Royals winning the World Series in 2015.[14]

What will have an impact on the City of Kansas City's municipal operations carbon footprint is the contract entered into with KCP&L's Renewables Direct program (Rate Schedule RER). Which, to be clear, is a <u>voluntary</u> action undertaken by that actor alone. The City of Kansas City's municipal service will bear the risks/costs and can claim the requisite benefits without shifting costs onto other captive ratepayers.

The City of Kansas City's sustainable municipal operations are not germane to KCP&L's imprudent managerial decision to not sell its ratepayer-funded RECs. The fact that Mr. Martin's Schedule JM-2 does not include or reference the non-sale of RECs as a means to further sustainable effort merely underscores this point. This argument has no merit.

V. RESPONSE TO KCP&L'S CUSTOMER ADVISORY PANEL RESULTS

Q. What customer survey results did Mr. Martin present to substantiate that KCP&L customers wanted the Company to not sell its RECs?

A. No evidence was provided in support of that inaction.

[13] EO-2019-0067 Direct Testimony of Jeff Martin, p. 5, 16-17.

[14] To provide a more detailed response to such an inquiry: it depends on how the City of Kansas City municipal operations is counting emission reductions. Many unanswered questions remain as to how the 30% emission reduction is being credited. For example, do you count emissions reductions from KCP&L or reduction across SPP? Are they talking about emissions only tied to the City's municipal operations? Emissions found in the city of Kansas City? Emissions in KCP&L's footprint? In SPP's footprint? Can the City of Kansas City's municipal operations claim attribution for the supply-side make-up of its investor-owned electric utility provider? Etc…

Additionally, the Commission should be cognizant of the introductory sentence in Schedule JM-5 which reaffirms no data exists to substantiate that argument:

> We have conducted multiple surveys among our Customer Advisory Panel, **but none have specifically addressed interest in renewable energy.**[15] (emphasis added)

Q. Did Mr. Martin provide any customer survey results showing what KCP&L customers want?

A. No.

Q. Did Mr. Martin provide any customer survey results of anything?

A. He provided a couple of snapshots of different survey results without any context. Most importantly, neither of these cherry-picked survey results address the issue at hand: KCP&L's non-sale of its RECs.

OPC takes issue with the inclusion of these self-selected KCP&L survey results as well as Mr. Martin's interpretation of them. They are distractions, not germane to the issue at hand, and do not merit an extended rebuttal. The fact that 33.8% of the self-selected KCP&L Customer Advisory Panel respondents (of which we do not know how many are Missouri and how many are Kansas customers) have "looked at solar, don't want to invest in the upfront costs" or that "32% of panel members said they are very concerned about the environment" is irrelevant to the issue at hand: KCP&L's non-sale of its RECs.[16]

Q. Does OPC have any KCP&L-specific data that suggests what KCP&L customers want?

A. Yes. Customers want affordable rates.

Last fall OPC filed testimony in Case No: ER-2018-0145 and ER-2018-0146, KCPL-MO and KCPL-GMO rate cases, pointing to over 68,000 people who had signed a Change.org petition titled "Audit KCP&L" in light of both Companies continued increases in rates and recent

[15] EO-2019-0067 Direct Testimony of Jeff Martin, Schedule JM-5 p. 1.
[16] Ibid. p. 1-2.

budget billing failure.[17] KCP&L-specific data was also included in the aforementioned rate cases that included the results of KCP&L's most recent (at that time) JD Power Survey in which **

[17] Miller, C. (2018) Audit KCP&L. Change.org https://www.change.org/p/audit-kcp-l

**

A copy of the survey in its entirety is included in Schedule GM-2.

VI. RESPONSE TO "CUSTOMERS CAN AFFORD THE INCREASE"

Q. Mr. Martin argues that KCP&L should be allowed to recover its non-sale of REC costs because the impact is immaterial to customers. Do you agree?

A. No.[18] KCP&L management erred in its discretion and management of ratepayer dollars by not realizing revenues from the sale of its RECs. It's as simple as that. Arguing that the costs are immaterial to its customers is frankly offensive and departs from fundamental economic regulation. It also suggests KCP&L's management has little incentive now or in the future to protect customers from incurring costs in the hundreds of thousands of dollars, since it considers those amounts immaterial to its customers. Ordering the Staff's adjustment for imprudence would not only protect ratepayers for the imprudence of this review period, but would act as a future disincentive to management to disregard such customer impacts.

Q. But Mr. Martin claims it would only cost $0.02 a month for an average household. Can't ratepayers absorb that much?

A. If ability to absorb the harm were a proper consideration, it would also be proper to consider the ability of KCP&L to absorb an amount it believes to be immaterial; and it would be easy to demonstrate KCP&L will have no difficulty absorbing the harm caused by its imprudent actions.

Cost-causers should be the cost-bearers. Captive customers should not be compelled, by a Fortune 500 company no less, to pay for an imprudent managerial decision, especially when so many customers are living on the margins day-to-day and most households have only seen a token increase in their overall household income.

For comparative context, figure 4 shows the historical real median household income for Missouri from 2009 to 2017 (last available date) and figure 5 shows the tariffed revenues collected from 2009 to 2018 (last available date) for both KCPL-MO and KCPL-GMO.

[18] The French have a saying for this sentiment, "Qu'ils mangent de la brioche"or "Let them eat brioche (cake)."

Figure 4: Historical Real Median Household Income for Missouri 2009 and 2017[19]

	2009 Median Income	2017 Median Income	% change
Missouri Household	$55,855	$56,885	+ 1.84%

Figure 5: Tariffed Revenues of KCPL-MO and KCPL-GMO 2009 and 2018 [20]

	2009 Tariffed Revenues	2018 Tariffed Revenues	% change
KCPL-MO	$588,038,778	$931,128,044	+59%
KCPL-GMO	$613,155,480	$777,917,585	+27%

KCPL-MO and KCPL-GMO customers should not have to endure even more additional costs for managerial mismanagement. Despite its natural monopoly status, KCP&L should strive to improve its relationship with its customers, regulators and consumer advocates by not eroding trust through "nickel and dime" tactics. Failure to do so will incur greater negative feedback as evidence from KCPL-MO and KCPL-GMO's most recent rate cases.

Q. What is OPC's recommended prudence adjustment?

A. OPC recommends that the Commission order KCPL-MO and KCPL-GMO to sell its excess RECs that are not necessary to meet Missouri's RES going forward. OPC witness Lena Mantle's testimony addresses the specific financial adjustments recommended for this period.

Q. Does that conclude your testimony?

A. Yes.

[19] Federal Reserve Bank of St. Louis (2018) Real Median Household Income in Missouri https://fred.stlouisfed.org/series/MEHOINUSMOA672N

[20] See Kansas City Power & Light Company-Investor (Electric) and KCP&L Greater Missouri Operations Company-Investor (Electric) Annual Report Submissions 2009 and 2018.

CASE PARTICPATION OF
GEOFF MARKE, PH.D.

Company Name	Employed Agency	Case Number	Issues
KCP&L Greater Missouri Operations Company	Office of Public Counsel (OPC)	EO-2019-0067	**Rebuttal:** Renewable Energy Credits
Union Electric Company d/b/a Ameren Missouri	OPC	EO-2019-0314	**Memorandum:** Notice of Deficiency to Annual IRP Update
Rule Making	OPC	WX-2019-0380	**Memorandum:** on Affiliate Transaction Rules for Water Corporations
Working Case: Evaluate Potential Mechanisms for Facilitating Installation of Electric Vehicle Charging Stations	OPC	EW-2019-0229	**Memorandum:** on Policy Surrounding Electric Vehicles and Electric Vehicle Charging Stations
Rule Making	OPC	EX-2019-0050	**Memorandum** on Solar Rebates and Low Income Customers
Union Electric Company d/b/a Ameren Missouri	OPC	GR-2019-0077	**Direct:** Billing Practices
Empire District Electric Company	OPC	EA-2019-0010	**Rebuttal:** Levelized Cost of Energy, Wind in the Southwest Power Pool **Surrebuttal**: SPP Market Conditions, Property Taxes, Customer Protections
Empire District Electric Company /Kansas City Power & Light & KCP&L Greater Missouri Operations Company/Union Electric Company d/b/a Ameren Missouri	OPC	EO-2019-0066 EO-2019-0065 EO-2019-0064 EO-2019-0063	**Memorandum:** Additive Manufacturing and Cement Block Battery Storage (IRP: Special Contemporary Topics)
Working Case: Allocation of Solar Rebates from SB 564	OPC	EW-2019-0002	**Memorandum** on Solar Rebates and Low Income Customers
Rule Making Workshop	OPC	AW-2018-0393	**Memorandum:** Supplemental Response to Staff Questions pertaining to Rules Governing the Use of Customer Information
Union Electric Company d/b/a Ameren Missouri	OPC	ET-2018-0132	**Rebuttal:** Line Extension / Charge Ahead – Business Solutions / Charge Ahead – Electric Vehicle Infrastructure **Supplemental Rebuttal:** EV Adoption Performance Base Metric
Union Electric Company d/b/a Ameren Missouri	OPC	EO-2018-0211	**Rebuttal:** MEEIA Cycle III Application

			Surrebuttal: Cost Effectiveness Tests / Equitable Energy Efficiency Baseline
Union Electric Company d/b/a Ameren Missouri	OPC	EA-2018-0202	**Rebuttal:** Renewable Energy Standard Rate Adjustment Mechanism/Conservation **Surrebuttal:** Endangered and Protected Species
Kansas City Power & Light & KCP&L Greater Missouri Operations Company	OPC	ER-2018-0145 ER-2018-0146	**Direct:** Smart Grid Data Privacy Protections **Rebuttal:** Clean Charge Network / Community Solar / Low Income Community Solar / PAYS/ Weatherization/Economic Relief Pilot Program/Economic Development Rider/Customer Information System and Billing **Rebuttal:** TOU Rates / IBR Rates / Customer Charge / Restoration Charge **Surrebuttal:** KCPL-GMO Consolidation / Demand Response / Clean Charge Network / One CIS: Privacy, TOU Rates, Billing & Customer Experience
Union Electric Company d/b/a Ameren Missouri	OPC	ET-2018-0063	**Rebuttal:** Green Tariff
Liberty Utilities	OPC	GR-2018-0013	**Surrebuttal:** Decoupling
Empire District Electric Company	OPC	EO-2018-0092	**Rebuttal:** Overview of proposal/ MO PSC regulatory activity / Federal Regulatory Activity / SPP Activity and Modeling / Ancillary Considerations **Surrebuttal** Response to parties **Affidavit** in opposition to the non-unanimous stipulation and agreement
Great Plains Energy Incorporated, Kansas City Power & Light Company, KCP&L Greater Missouri Operations Company, and Westar Energy, Inc.	OPC	EM-2018-0012	**Rebuttal:** Merger Commitments and Conditions / Outstanding Concerns
Missouri American Water	OPC	WR-2017-0285	**Direct:** Future Test Year/ Cost Allocation Manual and Affiliate Transaction Rules for Large Water Utilities / Lead Line Replacement **Direct:** Rate Design / Cost Allocation of Lead Line Replacement **Rebuttal**: Lead Line Replacement / Future Test Year/ Decoupling /

			Residential Usage / Public-Private Coordination **Rebuttal**: Rate Design **Surrebuttal**: Affiliate Transaction Rules / Decoupling / Inclining Block Rates / Future Test Year / Single Tariff Pricing / Lead Line Replacement
Missouri Gas Energy / Laclede Gas Company	OPC	GR-2017-0216 GR-2017-0215	**Rebuttal:** Decoupling / Rate Design / Customer Confidentiality / Line Extension in Unserved and Underserved Areas / Economic Development Rider & Special Contracts **Surrebuttal:** Pay for Performance / Alagasco & EnergySouth Savings / Decoupling / Rate Design / Energy Efficiency / Economic Development Rider: Combined Heat & Power
Indian Hills Utility	OPC	WR-2017-0259	**Direct:** Rate Design
Rule Making	OPC	EW-2018-0078	**Memorandum:** Cogeneration and net metering - Disclaimer Language regarding rooftop solar
Empire District Electric Company	OPC	EO-2018-0048	**Memorandum:** Integrated Resource Planning: Special Contemporary Topics Comments
Kansas City Power & Light	OPC	EO-2018-0046	**Memorandum:** Integrated Resource Planning: Special Contemporary Topics Comments
KCP&L Greater Missouri Operations Company	OPC	EO-2018-0045	**Memorandum:** Integrated Resource Planning: Special Contemporary Topics Comments
Missouri American Water	OPC	WU-2017-0296	**Direct:** Lead line replacement pilot program **Rebuttal:** Lead line replacement pilot program **Surrebuttal:** Lead line replacement pilot program
KCP&L Greater Missouri Operations Company	OPC	EO-2017-0230	**Memorandum** on Integrated Resource Plan, preferred plan update
Working Case: Emerging Issues in Utility Regulation	OPC	EW-2017-0245	**Memorandum** on Emerging Issues in Utility Regulation / **Presentation**: Inclining Block Rate Design Considerations **Presentation**: Missouri Integrated Resource Planning: And the search for the "preferred plan." **Memorandum**: Draft Rule 4 CSR 240-22.055 DER Resource Planning

Rule Making	OPC	EX-2016-0334	**Memorandum** on Missouri Energy Efficiency Investment Act Rule Revisions
Great Plains Energy Incorporated, Kansas City Power & Light Company, KCP&L Greater Missouri Operations Company, and Westar Energy, Inc.	OPC	EE-2017-0113 / EM-2017-0226	**Direct**: Employment within Missouri / Independent Third Party Management Audits / Corporate Social Responsibility
Union Electric Company d/b/a Ameren Missouri	OPC	ET-2016-0246	**Rebuttal**: EV Charging Station Policy **Surrebuttal**: EV Charging Station Policy
Kansas City Power & Light		ER-2016-0156	**Direct:** Consumer Disclaimer **Direct:** Response to Commission Directed Questions **Rebuttal:** Customer Experience / Greenwood Solar Facility / Dues and Donations / Electric Vehicle Charging Stations **Rebuttal:** Class Cost of Service / Rate Design **Surrebuttal:** Clean Charge Network / Economic Relief Pilot Program / EEI Dues / EPRI Dues
Union Electric Company d/b/a Ameren Missouri	OPC	ER-2016-0179	**Direct:** Consumer Disclaimer / Transparent Billing Practices / MEEIA Low-Income Exemption **Direct**: Rate Design **Rebuttal:** Low-Income Programs / Advertising / EEI Dues **Rebuttal:** Grid-Access Charge / Inclining Block Rates /Economic Development Riders
KCP&L Greater Missouri Operations Company	OPC	ER-2016-0156	**Direct:** Consumer Disclaimer **Rebuttal:** Regulatory Policy / Customer Experience / Historical & Projected Customer Usage / Rate Design / Low-Income Programs **Surrebuttal:** Rate Design / MEEIA Annualization / Customer Disclaimer / Greenwood Solar Facility / RESRAM / Low-Income Programs
Empire District Electric Company, Empire District Gas Company, Liberty Utilities (Central)	OPC	EM-2016-0213	**Rebuttal:** Response to Merger Impact **Surrebuttal:** Resource Portfolio / Transition Plan

Company, Liberty Sub-Corp.			
Working Case: Polices to Improve Electric Regulation	OPC	EW-2016-0313	**Memorandum** on Performance-Based and Formula Rate Design
Working Case: Electric Vehicle Charging Facilities	OPC	EW-2016-0123	**Memorandum** on Policy Considerations of EV stations in rate base
Empire District Electric Company	OPC	ER-2016-0023	**Rebuttal:** Rate Design, Demand-Side Management, Low-Income Weatherization **Surrebuttal:** Demand-Side Management, Low-Income Weatherization, Monthly Bill Average
Missouri American Water	OPC	WR-2015-0301	**Direct:** Consolidated Tariff Pricing / Rate Design Study **Rebuttal:** District Consolidation/Rate Design/Residential Usage/Decoupling **Rebuttal**: Demand-Side Management (DSM)/ Supply-Side Management (SSM) **Surrebuttal:** District Consolidation/Decoupling Mechanism/Residential Usage/SSM/DSM/Special Contracts
Working Case: Decoupling Mechanism	OPC	AW-2015-0282	**Memorandum:** Response to Comments
Rule Making	OPC	EW-2015-0105	Missouri Energy Efficiency Investment Act Rule Revisions, Comments
Union Electric Company d/b/a Ameren Missouri	OPC	EO-2015-0084	Triennial Integrated Resource Planning Comments
Union Electric Company d/b/a Ameren Missouri	OPC	EO-2015-0055	**Rebuttal**: Demand-Side Investment Mechanism / MEEIA Cycle II Application **Surrebuttal**: Potential Study / Overearnings / Program Design **Supplemental Direct:** Third-party mediator (Delphi Panel) / Performance Incentive **Supplemental Rebuttal:** Select Differences between Stipulations **Rebuttal:** Pre-Pay Billing
The Empire District Electric Company	OPC	EO-2015-0042	Integrated Resource Planning: Special Contemporary Topics Comments
KCP&L Greater Missouri Operations Company	OPC	EO-2015-0041	Integrated Resource Planning: Special Contemporary Topics Comments
Kansas City Power & Light	OPC	EO-2015-0040	Integrated Resource Planning: Special Contemporary Topics Comments

Union Electric Company d/b/a Ameren Missouri	OPC	EO-2015-0039	Integrated Resource Planning: Special Contemporary Topics Comments
Union Electric Company d/b/a Ameren Missouri	OPC	EO-2015-0029	Ameren MEEIA Cycle I Prudence Review Comments
Kansas City Power & Light	OPC	ER-2014-0370	**Direct** (Revenue Requirement): Solar Rebates **Rebuttal:** Rate Design / Low-Income Weatherization / Solar Rebates **Surrebuttal:** Economic Considerations / Rate Design / Cyber Security Tracker
Rule Making	OPC	EX-2014-0352	**Memorandum** Net Metering and Renewable Energy Standard Rule Revisions,
The Empire District Electric Company	OPC	ER-2014-0351	**Rebuttal:** Rate Design/Energy Efficiency and Low-Income Considerations
Rule Making	OPC	AW-2014-0329	Utility Pay Stations and Loan Companies, Rule Drafting, Comments
Union Electric Company d/b/a Ameren Missouri	OPC	ER-2014-0258	**Direct:** Rate Design/Cost of Service Study/Economic Development Rider **Rebuttal:** Rate Design/ Cost of Service/ Low Income Considerations **Surrebuttal:** Rate Design/ Cost-of-Service/ Economic Development Rider
KCP&L Greater Missouri Operations Company	OPC	EO-2014-0189	**Rebuttal:** Sufficiency of Filing **Surrebuttal:** Sufficiency of Filing
KCP&L Greater Missouri Operations Company	OPC	EO-2014-0151	Renewable Energy Standard Rate Adjustment Mechanism (RESRAM) Comments
Liberty Natural Gas	OPC	GR-2014-0152	**Surrebuttal:** Energy Efficiency
Summit Natural Gas	OPC	GR-2014-0086	**Rebuttal:** Energy Efficiency **Surrebuttal:** Energy Efficiency
Union Electric Company d/b/a Ameren Missouri	OPC	ER-2012-0142	**Direct:** PY2013 EM&V results / Rebound Effect **Rebuttal:** PY2013 EM&V results **Surrebuttal:** PY2013 EM&V results **Direct:** Cycle I Performance Incentive **Rebuttal:** Cycle I Performance Incentive
Kansas City Power & Light	Missouri Public Service Commission Staff	EO-2014-0095	**Rebuttal:** MEEIA Cycle I Application testimony adopted
KCP&L Greater Missouri Operations Company	Missouri Division of Energy (DE)	EO-2014-0065	Integrated Resource Planning: Special Contemporary Topics Comments
Kansas City Power & Light	DE	EO-2014-0064	Integrated Resource Planning: Special Contemporary Topics Comments

The Empire District Electric Company	DE	EO-2014-0063	Integrated Resource Planning: Special Contemporary Topics Comments
Union Electric Company d/b/a Ameren Missouri	DE	EO-2014-0062	Integrated Resource Planning: Special Contemporary Topics Comments
The Empire District Electric Company	DE	EO-2013-0547	Triennial Integrated Resource Planning Comments
Working Case: State-Wide Advisory Collaborative	OPC	EW-2013-0519	**Presentation:** Does Better Information Lead to Better Choices? Evidence from Energy-Efficiency Labels **Presentation:** Customer Education & Demand-Side Management **Presentation:** MEEIA: Strengths, Weaknesses, Opportunities and Threats (SWOT) Analysis
Independence-Missouri	OPC	Indy Energy Forum 2014	**Presentation:** Energy Efficiency
Independence-Missouri	OPC	Indy Energy Forum2015	**Presentation:** Rate Design
NARUC – 2017 Winter, Washington D.C.	OPC	Committee on Consumer Affairs	**Presentation:** PAYS Tariff On-Bill Financing
NASUCA – 2017 Mid-Year, Denver	OPC	Committee on Water Regulation	**Presentation:** Regulatory Issues Related to Lead-Line Replacement of Water Systems
NASUCA – 2017 Annual Baltimore,	OPC	Committee on Utility Accounting	**Presentation:** Lead Line Replacement Accounting and Cost Allocation
NARUC – 2018 Annual, Orlando	OPC	Committee on Consumer Affairs	**Presentation:** PAYS Tariff On-Bill Financing Opportunities & Challenges
Critical Consumer Issues Forum (CCIF)—New Orleans	OPC	Examining Polices for Delivering Smart Mobility	**Presentation:** Missouri EV Charging Station Policy in 4 Acts: Missouri Office of the Public Counsel Perspective

Case No. EO-2019-0067(Lead)

Case No. EO-2019-0068(Consolidated)

Case No. ER-2019-0199(Consolidated)

Schedule GM-2 to Geoff Marke's Rebuttal Testimony has been deemed "Confidential" in its entirety