Exhibit No.: Issue(s): Witness/Type of Exhibit: Sponsoring Party: Case No.:

Consumer Disclaimer Marke/Direct Public Counsel ER-2016-0156

## **DIRECT TESTIMONY**

## OF

## **GEOFF MARKE**

Submitted on Behalf of The Office of the Public Counsel

## KCP&L GREATER MISSOURI OPERATIONS COMPANY

## Case No. ER-2016-0156

July 29, 2016

### BEFORE THE PUBLIC SERVICE COMMISSION OF THE STATE OF MISSOURI

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In the Matter of KCP&L Greater Missouri Operations Company's Request for Authority to Implement a General Rate Increase for Electric Service

Case No. ER-2016-0156

### **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 direct 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

Subscribed and sworn to me this 29th day of July 2016.

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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		CASE NO. ER-2016-0156		
1	I.	INTRODUCTION		
2	Q.	Please state your name, title and business address.		
3	A.	Dr. Geoffrey Marke, Economist, Office of the Public Counsel ("OPC or "Public Counsel"),		
4		P.O. Box 2230, Jefferson City, Missouri 65102.		
5	Q.	By whom are you employed and in what capacity?		
6	A.	I am employed by the OPC as a Regulatory Economist.		
7	Q.	On whose behalf are you testifying?		
8	A.	I am testifying on behalf of the OPC.		
9	Q.	Please describe your education and employment background.		
10	A.	I received a Bachelor of Arts Degree in English from The Citadel, a Masters of Arts Degree		
11		in English from The University of Missouri-St. Louis, and a Doctorate of Philosophy in		
12		Public Policy Analysis from Saint Louis University (SLU). At SLU, I served as a graduate		
13		assistant where I taught undergraduate and graduate course work in urban policy and public		
14		finance. I also conducted mixed-method research in transportation policy, economic		
15		development, and emergency management.		
16		I have been in my present position with OPC since 2014 where I have been responsible for		
17		economic analysis and policy research in electric, gas, and water/sewer utility operations.		
18		Prior to joining OPC, I was employed by the Missouri Public Service Commission		
19		("Commission") where my primary duties involved reviewing, analyzing and writing		

recommendations concerning electric integrated resource planning, renewable energy standards, and demand-side management programs for all investor-owned electric utilities in Missouri. I also have been employed by the Missouri Department of Natural Resources (later transferred to the Department of Economic Development), Energy Division where I served as the lead policy analyst on electric cases. I have worked in the private sector, most notably serving as the Lead Researcher for Funston Advisory based out of Detroit, Michigan. My experience with Funston involved a variety of specialized consulting engagements with both private and public entities.

# Q. Have you been a member of, or participated in, any work groups, committees, or other groups that have addressed electric utility regulation and policy issues?

- A. Yes. I am currently a member of the National Association of State Consumer Advocates (NASUCA) Distributed Energy Resource Committee which shares information and establishes policies regarding energy efficiency, renewable generation, demand-side management, and considers best practices for the development of cost-effective programs that promote fairness and value for all consumers. I also serve as a member on NASUCA's Electricity Committee and NASUCA's Water Committee's each tasked with analyzing current issues affecting residential consumers.
- 18 Q. Have you testified previously before the Commission?
- A. Yes. A listing of the cases in which I previously have filed testimony and/or comments
   before this commission is attached in GM-1.
- Q. What is the purpose of your rebuttal testimony?
- A. The purpose of this testimony is to sponsor consumer disclaimer language and consent in
   regards to large capital investments in rooftop solar and energy efficiency.

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#### 1 II. **CONSUMER DISCLAIMER**

**Consumer Protection Regarding Fixed Charge Increases and Capital Investments** 

#### Q. Is OPC concerned with the frequency of requests to increase the residential customer charge and other fixed charge increases?

A. Yes. OPC strongly believes that the customer charge should not be a conduit to address the Company's perceived external threats and certainly not at the expense of those who can least afford to lose further control over their financial lives such as low-income and fixed-income ratepayers. To that end, much has already been stated in previous cases—and and will be expounded on in rebuttal. However, beyond low and fixed-income ratepayers, the next obvious subset of ratepayers unfairly penalized by an increased customer charge are those who have invested time and money in being efficient, conservative and environmentally 12 responsible. This is because increased fixed charges offset the financial savings of any previous efficiency actions and erode the incentive to improve appliances or better insulate their home moving forward.

Ratepayers who just made capital investments or are considering making investments in energy efficiency measures will have much longer payback periods over which to recoup their investments. This can be illustrated by looking at the U.S. Department of Energy's, EnergyGuide and Lighting Facts labels placed on appliances and lighting as well as on the Opower Home Energy Report (a MEEIA-sponsored program where usage comparisons are mailed to select GMO residents to induce energy efficiency actions) as seen in Figures 1 and 2 respectively.

### 1 Figure 1: Example of The EnergyGuide and Lighting Facts label for new appliances and lighting<sup>1</sup>

Lighting Facts Per Bulb **ENERGYGUI** DE XYZ Corporation Model ABC-L Capacity: 23 Cubic Fee Brightness 800 lumens Estimated Yearly Energy Cost \$1.57 Estimated Yearly Operating Cost Based on 3 hrs/day, 11c/kWh Cost depends on rates and use 56/ Life Based on 3 hrs/day \$57 \$74 **Light Appearance** Cost Range of Similar Models Warm Cool 2700 K 630 KWh Estimated Yearly Electricity Use **Energy Used** 13 watts Your cost will depend on your utility rates and use. Cest range based only on models of similar capacity with automatic defrost, side-mounted fineazer, and through-the-door (or. Estimated operating cost based on a 2007 national average electricity cost of 10.65 gents per VMN. For more information, violt www.fbc.gov/lappilances.

2 3

Figure 2: Example of Opower Efficient Homes Price Signal<sup>2</sup>

Similar Homes Friend Rank	About Me		
Room for improvement		All homes	My home \$43.00 340 kwh
Used tos more than Septen G Used less than yearly avera		\$37.12 312 kwh	
An easy way to save:	Join a group, compete together!	You are being cor these characteris	npared to to <b>214,827</b> homes with tics:
Turn off lights wh not needed & 1.021 people do	interests to drive efficiency at	t구 0-500 sq ft	E Central A/C
Show more tips	Search groups	Edit my home info	

4

 <sup>1</sup> U.S. Department of Energy (2013) Comparing appliance and lighting energy costs online just got easier. http://energy.gov/energysaver/articles/comparing-appliance-and-lighting-energy-costs-online-just-got-easier
 <sup>2</sup> Fehrenbacher. K (2014) Report: Opower has quietly filed for its long-awaited IPO. https://gigaom.com/2014/02/12/report-opower-has-quietly-filed-for-its-long-awaited-ipo

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Increasing the fixed charge distorts these pricing estimates and would cancel out the energy saved by Empire's energy efficiency programs to date. This same logic applies to distributive generation such as rooftop solar.

If a ratepayer considers making a large-scale capital investment such as rooftop solar or an efficient HVAC system, they should be cognizant of the risk involved with that purchase. In some ways, this is no different than any other long-lived investment. For example, if you pay extra for an electric car, you run the risk gas prices fall after you buy the car and your investment will not pay off. What's different about distributed generation or energy efficiency is much of the risk is subject to Commission orders. With most financial risks, there's a chance the underlying prices will go up or down 5% but a much smaller chance that they'll change by over 50%. However, this is exactly the sort of risk ratepayers who have elected to become more efficient are faced with whenever a rate case docket is opened.

In the past four electric rate cases before this Commission, utilities have proposed fixed monthly customer charge increases of 50%,<sup>3</sup> 178%,<sup>4</sup> 21%<sup>5</sup> and now 52% (L&P) and 39% (MPS),<sup>6</sup> respectively. If fixed charges are added or existing fixed charges are increased, ratepayers who have made investments in energy efficiency or distributed generation will have longer payback periods over which to recoup their investments and all ratepayers will be made worst off by having the benefits of energy efficiency minimized and the costs (including MEEIA-related performance incentives) maximized. Despite the increased customer charge tactic largely being abandoned by utilities throughout the country,<sup>7</sup> ratepayers who made good-faith investments are still exposed to future regulatory rate design departures or rulemaking decisions that could have an adverse impact on their past decisions to proactively take control of their bills.

ER-2014-0351 Direct Testimony of W. Scott Keith p. 14, 8.

ER-2014-0370 Direct Testimony of Tim Rush p. 65, 9.

<sup>&</sup>lt;sup>5</sup> ER-2016-0023Staff's Rate Design and Class Cost-of-Service Report p. 3, 5.

<sup>&</sup>lt;sup>6</sup> ER-2016-0156 Direct Testimony of Bradley D. Lutz p.32, 10.

<sup>&</sup>lt;sup>7</sup> Trabish, H.K. (2015) Beyond fixed charges: 'Disruptive Challenges' author charts new utility path. Utilitydive. http://www.utilitydive.com/news/beyond-fixed-charges-disruptive-challenges-author-charts-new-utility-pat/408971/

### 1 Q. Could you provide an example of this threat in another state?

A. Yes. Recently, the Public Utilities Commission of Nevada ("PUCN") ordered that ratepayers
with installed solar would have their fixed charges tripled from \$12.75 to almost \$40.00 over
the next four years. In addition, the PUCN changed the netting to hourly rather than monthly
and instituted a low rate for sales to the grid.<sup>8</sup> These changes will be applied retroactively to
Nevada's 18,000 existing solar customers, in addition to any new customers.<sup>9</sup>

### 7 Q. Does OPC have a consumer protection proposal for rooftop solar?

A. Yes. OPC has drafted disclaimer language to alert potential buyers that their PV systems are subject to possible future rules and/or rate changes which could have an impact on the economic assumptions behind their purchase. OPC's proposed language to be included as a disclaimer is included in Figure 3.

 <sup>8</sup> 15-070401 & 15-07042. Application of the Nevada Power Company and Sierra Pacific Power Company d/b/a NV Energy for approval of a cost-of-service study and net metering tariffs. <u>http://pucweb1.state.nv.us/PDF/AxImages/DOCKETS\_2015\_THRU\_PRESENT/2015-7/9692.pdf</u>
 <sup>9</sup> Pyper, J. (2016) Does Nevada's controversial net metering decision set a precedent for the Nation? Greentechmedia. <u>http://www.greentechmedia.com/articles/read/nevada-net-metering-decision</u>

1	Figure 3: Proposed disclaimer language for future rooftop solar purchases
2	Disclaimer: Possible Future Rules and/or Rate Changes
3	Affecting Your Photovoltaic (PV) System
4 5	1. Your PV system is subject to the current rates, rules and regulations by the Missouri
6	Public Service Commission ("Commission"). The Commission may alter its rules and regulations and/or change rates in the future. If this occurs, your PV system is subject to
7	those changes and you will be responsible for paying any future increases to electricity
8	rates, charges or service fees from KCP&L Greater Missouri Operations Company.
9	<ol> <li>KCP&amp;L Greater Missouri Operations Company's electricity rates, charges and service fees are determined by the Commission and are subject to change based upon the decision</li> </ol>
10	of the Commission. These future adjustments may positively or negatively impact any
11	potential savings or the value of your PV system.
12	3. Any future electricity rate projections which may be presented to you are not produced,
13	analyzed or approved by KCP&L Greater Missouri Operations Company or the Commission. They are based on projections formulated by external third parties not
14	affiliated with KCP&L Greater Missouri Operations Company or the Commission.
15	
16	This disclaimer would not regulate the financial contents of the solar provider's offer. It
17	would require all residential customers who are considering rooftop solar to be aware that the
18 19	price and payback assumptions seen today are not static and, in part, subject to considerable regulatory oversight.
20	The disclaimer would be placed in GMO's tariff right before the applicant's signature in the
21	Solar Photovoltaic Rebate Program tariff sheet 46C and in the Net Metering Interconnection
22	Application Agreement tariff sheet 23T.

1	Q.	Is OPC proposing similar language for energy efficiency investments?				
2	A.	Yes. The same logic applies equally to all energy efficiency products. However, OPC has				
3		elected to limit the disclaimer to measures/actions requiring a third-party installer on the				
4		ratepayers premise as well as GMO's behavioral response program. This would include the				
5		following programs currently in place in GMO's Commission-approved MEEIA portfolio:				
6		Non-Residential/Business Programs:				
7		Business Energy Efficiency Rebate-Custom				
8		Business Energy Efficiency Rebate-Standard				
9		Strategic Energy Management				
10		Block Bidding				
11		Small Business Direct Install				
12		Residential Programs:				
13		Whole House Efficiency				
14		• Home Energy Report (OPower Report)				
15						
16	OPC'	s proposed language to be included as a disclaimer is included in Figure 4 below:				

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in GMO's tariff as follows:

Figure 4: Proposed disclaimer language for energy efficiency investment Disclaimer: Possible Future Rules and/or Rate Changes Affecting Your Energy Efficiency Investment 4. Your energy efficiency investment is subject to the current rates, rules and regulations by the Missouri Public Service Commission ("Commission"). The Commission may alter its rules and regulations and/or change rates in the future. If this occurs, your energy efficient investment is subject to those changes and you will be responsible for paying any future increases to electricity rates, charges or service fees from KCP&L Greater Missouri **Operations Company.** 5. KCP&L Greater Missouri Operations Company's electricity rates, charges and service fees are determined by the Commission and are subject to change based upon the decision of the Commission. These future adjustments may positively or negatively impact any potential financial savings or the value of your energy efficient investment. 6. Any future electricity rate projections which may be presented to you are not produced, analyzed or approved by KCP&L Greater Missouri Operations Company or the Commission. They are based on projections formulated by external third parties not affiliated with KCP&L Greater Missouri Operations Company or the Commission. This disclaimer would require all residential and business customers who are considering making a large energy efficient investment to be made aware the price and payback assumptions seen today are not static and, in part, subject to considerable regulatory oversight. The disclaimer would be placed following each of the aforementioned programs description

1		Non-Residential/Business Programs Tariff Sheet No.:
2		Sheet No. R-79.1 Business Energy Efficiency Rebate-Custom
3		• Sheet No. R-80.1 Business Energy Efficiency Rebate-Standard
4		• Sheet No. R-81.1 Block Bidding
5		• Sheet No. R-82.1 Strategic Energy Management
6		• Sheet No. R-83.1 Small Business Direct Install
7		Residential Programs Tariff Sheet No.:
8		• Sheet No. R-102.1 Whole House Efficiency
9		• Sheet No. R-103.1 Home Energy Report
10	Q.	Do you have any further comments?
11	A.	OPC is currently awaiting the response to several data request from the Company in regards
12		to the interplay between fixed cost recovery and its MEEIA and will update the Commission
13		accordingly in future testimony.
14	Q.	Does this conclude your testimony?
15	A.	Yes.

# 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)	ER-2016-0156	Direct: Consumer Disclaimer
Empire District Electric Company, Empire District Gas Company, Liberty Utilities (Central) Company, Liberty Sub-Corp.	OPC	EM-2016-0213	Rebuttal: Response to Merger Impact
Working Case: Polices to Improve Electric Utility Regulation	OPC	EW-2016-0313	Comments on Performance-Based and Formula Rate Design
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
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	Net Metering and Renewable Energy Standard Rule Revisions, Comments
The Empire District Electric Company	OPC	ER-2014-0351	<b>Rebuttal:</b> Rate Design/Energy Efficiency and Low-Income Considerations
Working Case: Utility Pay Stations and Loan Companies	OPC	AW-2014-0329	Comments: Response to Staff Report
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	<b>Rebuttal:</b> CAM Sufficiency of Filing <b>Surrebuttal:</b> CAM 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	OPC	ER-2012-0142	Direct: PY2013 EM&V results /
d/b/a Ameren Missouri			Rebound Effect
			Rebuttal: PY2013 EM&V results
			Surrebuttal: PY2013 EM&V results
Kansas City Power &	Missouri Public	EO-2014-0095	Rebuttal: MEEIA Cycle I Application
Light	Service		testimony adopted
	<b>Commission Staff</b>		
KCP&L Greater Missouri	Missouri Division	EO-2014-0065	Integrated Resource Planning: Special
<b>Operations Company</b>	of Energy (DE)		Contemporary Topics Comments
Kansas City Power &	DE	EO-2014-0064	Integrated Resource Planning: Special
Light			Contemporary Topics Comments
The Empire District	DE	EO-2014-0063	Integrated Resource Planning: Special
Electric Company			Contemporary Topics Comments
Union Electric Company	DE	EO-2014-0062	Integrated Resource Planning: Special
d/b/a Ameren Missouri			Contemporary Topics Comments
The Empire District	DE	EO-2013-0547	Triennial Integrated Resource Planning
Electric Company			Comments