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Public Counsel
ER-2016-0023

SURREBUTTAL TESTIMONY

OF

GEOFF MARKE

Submitted on Behalf of the Office of the Public Counsel

EMPIRE DISTRICT ELECTRIC COMPANY

CASE NO. ER-2016-0023

**

**

Denotes Highly Confidential Information that has been redacted

May 16, 2016

OPC Exhibit No. 4
Date 6-2-16 Reporter KKF
File No. ER-2016-0023

NP

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

In the Matter of The Empire District)
Electric Company's Request for)
Authority to Implement a General) Case No. ER-2016-0023
Rate Increase for Electric Service)

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 surrebuttal 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 16th day of May 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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SURREBUTTAL TESTIMONY

OF

GEOFF MARKE

EMPIRE ELECTRIC COMPANY

CASE NO. ER-2016-0023

I. INTRODUCTION

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

A. Dr. Geoffrey Marke, 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 rebuttal testimony in ER-2016-0023?

A. I am.

Q. What is the purpose of your surrebuttal testimony?

A. The purpose of this surrebuttal testimony is to respond to the rebuttal testimony regarding:

- Demand-Side Management Programs
 - Missouri Public Service Commission Staff (“Staff”) witness Brad J. Fortson;
 - Missouri Division of Energy (“DE”) witness Martin R. Hyman; and
 - The Empire Electric District Company (“Empire” or “Company”) witness W. Scott Keith and Nathaniel W. Hackney.
- Low-Income Weatherization
 - Staff witness Kory Boustead; and
 - DE witness Sharlet E. Kroll.

I will also offer a correction to the “Empire to United States” average bill analysis I presented in rebuttal testimony.

Q. Please state OPC’s positions?

A. OPC supports Staff’s suggestion that Empire’s DSM programs be relegated to only low-income households in the near-term but oppose Staff’s proposal regarding the need for a

1 formal third-party evaluation of Empire's low-income weatherization assistance program
2 ("LIWAP").

3 In regard to rate design, OPC continues to support no increase to the customer charge and no
4 further revenue-neutral shift for the residential customer class in this case. Furthermore,
5 OPC continues to oppose the Praxair discount as well as MECG's proposed 10% reduction
6 to the tail block of the Large Power ("LP") customer class's energy charge.

7 **II. DEMAND-SIDE MANAGEMENT**

8 **Q. Briefly state Staff's position.**

9 A. Staff recommends Empire work with parties in this case to design a new low-income
10 energy efficiency program and discontinue all other previous programs.

11 **Q. Briefly state DE's position.**

12 A. DE recommends Empire continue operating their pre-MEEIA programs and encourages
13 the Company to file a new MEEIA application.

14 **Q. Briefly state the Company's position.**

15 A. It is not entirely clear. Company witness Keith states the demand-side management
16 ("DSM") programs are not mandatory in Missouri and Empire's preferred plan in their
17 triennial intergraded resource plan ("IRP") does not contain any demand-side
18 management programs.¹ However, Company witness Hackney states Empire will work
19 with parties to update tariff language as it pertains to DSM programs moving forward.²

¹ ER-2016-0023 Rebuttal Testimony of W. Scott Keith. p. 14, 1-10.

² ER-2016-0023 Rebuttal Testimony of Nathaniel W. Hackney p. 3, 18-22.

1 **Q. What is OPC's position?**

2 A. OPC supports Staff's recommendation to focus DSM efforts exclusively towards low-
3 income participants based on the results of the Company's IRP. If the Commission elects
4 to move forward with some form of DSM programs, OPC suggests these future programs
5 be scaled down, redesigned and administered on a pilot basis with input from Empire's
6 DSM advisory group.

7 **Q. Is there a way that Empire's programs could be cost-effective?**

8 A. Perhaps. In rebuttal testimony, I raised the problem of Empire's mutually exclusive
9 policy position whereby ratepayers subsidize energy efficiency but operate with a rate
10 design that promotes energy consumption. Changing the price signal would revise the
11 results of Empire's market potential study and show a much greater level of realistically
12 achievable potential ("RAP") for energy efficiency adoption. Whether or not that increase
13 to RAP would offset Empire's low avoided cost assumptions and make DSM a least-cost
14 resource to be pursued is unknown.

15 OPC is supportive of demand-side management programs as a least-cost resource and
16 intends to further explore the assumptions behind the Company's filed IRP in EO-2016-
17 0223.

18 **Q. How should Empire's energy efficiency costs be allocated amongst the customer**
19 **classes?**

20 A. OPC has reduced the residential class's revenue requirement for energy efficiency costs
21 by \$277,367 to reflect the reduced amount of residential participation in Empire's DSM
22 programs in FY2014 and FY2015. The adjusted breakdown by class can be seen in table
23 1.

**

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III. LOW-INCOME WEATHERIZATION

Q. Briefly state Staff's position.

A. Staff is not supportive of Empire's proposal to increase LIWAP funds by \$25,000 and is requesting that an evaluation be conducted on the current program in conjunction with Missouri Gas Energy (MGE).

Q. Briefly state DE's position.

A. DE is supportive of Empire's \$25,000 increase and is supportive of an evaluation that is targeted explicitly at the Community Action Agencies ("CAA's") administration of the Company's weatherization program.

Q. What is OPC's position?

A. OPC continues to support Empire's proposed increase and supports DE's suggestion that any evaluation undertaken over Empire's LIWAP program be limited to the CAA's administration of the funds. This "evaluation" would presumably be conducted in-house by Empire personnel and not necessitate additional ratepayer funds to administer.

III. MONTHLY BILL AVERAGE

Q. Does OPC have any additional comments to make?

A. Yes. In rebuttal testimony I included information from an Edison Electric Institute report showing the percentage difference between “typical” Empire ratepayers and the U.S. average. I have included the bill amounts for the US average in table 2 and Empire’s average in table 3 for reference. GM-1 includes the corrected percentage breakdowns.

Table 2: Typical Empire monthly bill average

Class of Service:	Res	Res	Res	Com	Com	Com	Ind	Ind	Ind
Demand (kW)					40	500	75	1,000	50,000
Low Load Factor (kWh)	500 \$70	750 \$96.59	1,000 \$121.75	375 \$68	10,000 \$1,120	150,000 \$14,828	15,000 \$1,800	200,000 \$23,179	15,000,000 \$1,495,764
Mid Load Factor				1,500 \$200	14,000 \$1,376	180,000 \$16,738	30,000 \$2,752	400,000 \$35,871	25,000,000 \$1,917,364
High Load Factor							50,000 \$3,983	650,000 \$51,261	32,500,000 \$2,183,564

Table 3: Typical U.S. monthly bill average

Class of Service:	Res	Res	Res	Com	Com	Com	Ind	Ind	Ind
Demand (kW)					40	500	75	1,000	50,000
Low Load Factor (kWh)	500 \$71.37	750 \$102.90	1,000 \$134.29	375 \$65	10,000 \$1,252	150,000 \$16,509	15,000 \$1,972	200,000 \$25,072	15,000,000 \$1,477,521
Mid Load Factor				1,500 \$197	14,000 \$1,602	180,000 \$18,630	30,000 \$3,158	400,000 \$38,663	25,000,000 \$2,095,274
High Load Factor							50,000 \$4,660	650,000 \$54,892	32,500,000 \$2,542,671

1 This correction does not change the conclusion reached in my rebuttal testimony that
2 Empire's high load Industrial customer's rates have more favorable average rates than
3 lower usage customer classes.

4 **Q. Does this conclude your testimony?**

5 **A. Yes.**

6

Table 1: EEI percentage (+/-) of typical Empire monthly bill compared to US monthly average

Class of Service:	Res	Res	Res	Com	Com	Com	Ind	Ind	Ind
Demand (kW)					40	500	75	1,000	50,000
Low Load Factor (kWh)	500 + 2%	750 + 6.5%	1,000 + 10.3%	375 (-)4.4%	10,000 + 11.8%	150,000 + 11.3%	15,000 + 9.6%	200,000 + 8.2%	15,000,000 (-) 1.2%
Mid Load Factor				1,500 (-)1.5%	14,000 + 16.4%	180,000 + 11.3%	30,000 + 14.8%	400,000 + 7.8%	25,000,000 + 9.3%
High Load Factor							50,000 + 17%	650,000 + 7.1%	32,500,000 + 16.5%

Table 2: EEI percentage (+/-) of typical US monthly bill compared to Empire monthly average

Class of Service:	Res	Res	Res	Com	Com	Com	Ind	Ind	Ind
Demand (kW)					40	500	75	1,000	50,000
Low Load Factor (kWh)	500 (-) 1.9%	750 (-) 6.1%	1,000 (-) 9.3%	375 + 4.6%	10,000 (-) 10.5%	150,000 (-) 10.2%	15,000 (-) 8.7%	200,000 (-) 7.6%	15,000,000 (+) 1.2%
Mid Load Factor				1,500 + 1.5%	14,000 (-)14.1%	180,000 (-) 10.2%	30,000 (-) 12.9%	400,000 (-) 7.2%	25,000,000 (-) 8.5%
High Load Factor							50,000 (-) 14.5%	650,000 (-) 6.6%	32,500,000 (-) 14.1%