Exhibit No.:

Issues: Rate Design
Witness: Maurice Brubaker
Type of Exhibit: Rebuttal Testimony

Sponsoring Parties: Ag Processing Inc; Federal Executive Agencies; Midwest Energy Consumer's

Group; Midwest Energy Users' Association; and Missouri Industrial

Energy Consumers

Case No.: ER-2012-0175
Date Testimony Prepared: September 12, 2012

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

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-2012-0175** Tracking No. YE-2012-0405

Rebuttal Testimony and Schedules of

### **Maurice Brubaker**

On behalf of

Ag Processing Inc
Federal Executive Agencies
Midwest Energy Consumer's Group
Midwest Energy Users' Association
Missouri Industrial Energy Consumers

September 12, 2012



Project 9594

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

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-2012-0175** Tracking No. YE-2012-0405

STATE OF MISSOURI	)	
	)	SS
COUNTY OF ST. LOUIS	1	

### **Affidavit of Maurice Brubaker**

Maurice Brubaker, being first duly sworn, on his oath states:

- 1. My name is Maurice Brubaker. I am a consultant with Brubaker & Associates, Inc., having its principal place of business at 16690 Swingley Ridge Road, Suite 140, Chesterfield, Missouri 63017. We have been retained by Ag Processing Inc; Federal Executive Agencies; Midwest Energy Consumer's Group; Midwest Energy Users' Association; and Missouri Industrial Energy Consumers in this proceeding on their behalf.
- 2. Attached hereto and made a part hereof for all purposes is my rebuttal testimony and schedules which were prepared in written form for introduction into evidence in the Missouri Public Service Commission's Case No. ER-2012-0175.
- 3. I hereby swear and affirm that the testimony and schedules are true and correct and that they show the matters and things that they purport to show.

Maurice Brubaker

Subscribed and sworn to before me this 11<sup>th</sup> day of September, 2012.

TAMMY S. KLOSSNER
Notary Public - Notary Seal
STATE OF MISSOURI
St. Charles County
My Commission Expires: Mar. 14, 2015
Commission # 11024862

Notary Public

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

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

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

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-2012-0175** Tracking No. YE-2012-0405

### **Rebuttal Testimony of Maurice Brubaker**

1	Q	PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.
2	Α	Maurice Brubaker. My business address is 16690 Swingley Ridge Road, Suite 140,
3		Chesterfield, MO 63017.
4	Q	ARE YOU THE SAME MAURICE BRUBAKER WHO HAS PREVIOUSLY FILED
5		TESTIMONY IN THIS PROCEEDING?
6	Α	Yes. I have previously filed direct testimony in this proceeding on August 21, 2012
7		regarding rate design issues.
8	Q	ARE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE OUTLINED IN
	_	ARE TOOK EDUCATIONAL BACKGROUND AND EXI ENERGE COTTEMED IN
9	~	THAT TESTIMONY?
	A	
9		THAT TESTIMONY?
9 10		THAT TESTIMONY?  Yes. This information is included in Appendix A to my direct testimony on rate design
9 10		THAT TESTIMONY?  Yes. This information is included in Appendix A to my direct testimony on rate design
9 10 11	Α	THAT TESTIMONY?  Yes. This information is included in Appendix A to my direct testimony on rate design issues.
9 10 11	A Q	THAT TESTIMONY?  Yes. This information is included in Appendix A to my direct testimony on rate design issues.  ON WHOSE BEHALF ARE YOU APPEARING IN THIS PROCEEDING?
9 10 11 12 13	A Q	THAT TESTIMONY?  Yes. This information is included in Appendix A to my direct testimony on rate design issues.  ON WHOSE BEHALF ARE YOU APPEARING IN THIS PROCEEDING?  This testimony is presented on behalf of Ag Processing Inc; Federal Executive

These customers purchase substantial amounts of electricity from KCP&L Greater

Missouri Operations Company ("GMO"), both in the MPS territory and in the L&P

territory. The outcome of this proceeding will have an impact on their cost of electricity.

### 5 Q WHAT IS THE PURPOSE OF YOUR TESTIMONY?

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A In my rebuttal testimony, I will respond to the cost of service allocation proposals made by GMO and by the Staff of the Missouri Public Service Commission ("Staff"), and the revenue allocation proposed by the Office of Public Counsel ("OPC"). Because of the similarity of issues, and in order to avoid unnecessary repetition, I will discuss and illustrate these issues primarily in the context of MPS. The same principles apply to L&P. Schedules MEB-COS-R-1 and MEB-COS-R-2 pertain specifically to MPS, and Schedules MEB-COS-3 and MEB-COS-R-4 pertain specifically to L&P.

### 14 Q PLEASE SUMMARIZE YOUR PRIMARY FINDINGS AND CONCLUSIONS.

- 15 A My rebuttal testimony may be summarized as follows:
- 1. The Base-Intermediate-Peaking ("BIP") allocation study sponsored by GMO is not supported as to theory and has not been shown to be applicable to the GMO system. It significantly over-allocates costs to large high load factor customers.
  - 2. GMO's BIP cost of service study is internally inconsistent in that it allocates above-average generation capacity costs to high load factor customers, but does not give them the benefit of the lower variable costs (mostly fuel) that correspond to the above-average capital cost allocation.
  - The Staff also sponsors a version of a BIP study. The methodology is substantially different from GMO's version and produces a generation allocation factor that is generally consistent with traditional approaches such as the Average & Excess ("A&E") method.

1 2 3 4		4.	The A&E approach that I offered in my direct testimony is the most appropriate allocation method for the GMO system, and should be adopted by the Commission and used as a guide to distribute any revenue increase found appropriate. The 4CP method produces comparable results.
5 6		5.	GMO allocates margins from off-system sales on demands rather than on energy. No justification is provided for this treatment.
7 8		6.	OPC's revenue shift proposal is based on GMO's flawed BIP study and should be rejected.
9			CLASS COST OF SERVICE ISSUES
10	Q	HA\	/E YOU REVIEWED THE TESTIMONY OF GMO WITNESS PAUL NORMAND
11		ANI	COMMISSION STAFF WITNESS MICHAEL SCHEPERLE ON THE SUBJECT
12		OF	CLASS COST OF SERVICE?
13	Α	Yes	•
14	Q	DO	YOU HAVE REBUTTAL TO THE POSITIONS OF THESE WITNESSES?
15	Α	Yes	, I do. I disagree with the methods which these witnesses have used for the
16		allo	cation of generation system fixed costs and with respect to the allocation of
17		cert	ain other components of the cost of service. The allocation of the generation
18		fixe	d costs is the largest and most important of these issues, and I will address it first.
19	GMC	)'s S	<u>tudy</u>
20	Q	WH.	AT METHOD HAS GMO USED FOR THE ALLOCATION OF GENERATION
21		FIX	ED, OR DEMAND-RELATED, COSTS?
22	Α	GM	O uses what it describes as the BIP method. With this method, the fixed costs
23		asso	ociated with base load generation essentially are allocated on a measure of class
24		ene	rgy consumption. The intermediate plants are allocated on a function of class 12

monthly coincident peaks minus base demands. Facilities identified as peaking facilities are allocated on class four summer coincident peak demands reduced by the base and intermediate demands.

#### 4 Q IS THE BIP STUDY METHODOLOGY ACCEPTED IN THE INDUSTRY?

Α

A No, it is not. The BIP method first surfaced circa 1980 as an approach that some thought might be useful when trying to develop time-differentiated rates. However, the BIP method never caught on and is only infrequently seen in regulatory proceedings. The BIP method is certainly not among the frequently used mainstream cost allocation methodologies, and lacks precedent for its use.

#### Q WHAT SEEMS TO BE THE FUNDAMENTAL TENET OF THE BIP METHOD?

Mr. Normand does not go into great detail, but on page 6 of his direct testimony he says that he attempted to determine the intended use of specific plant investments and then examined the use of these assets in the test period. By choosing to allocate 100% of the investment (fixed costs) associated with base load plants essentially on the basis of class energy, Mr. Normand is effectively assuming that base load plants do not provide any capacity value. This assumption is false. All plants provide capacity value as well as supplying energy. It appears from Mr. Normand's studies that nearly 92% of total generation fixed costs are allocated on the basis of energy consumption.

PLEASE	EXPL	AIN WHAT	YOU	MEAN	WHEN	YOU	SAY	THAT	BASE	LOAD
PLANTS	ARE	ALLOCATI	ED "E	ESSENT	TALLY"	ON	THE	BASIS	OF	CLASS
ENERGY.										

Q

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The specific method used is to identify the month that each class (by voltage level) used the minimum amount of energy. The energy in this month is divided by the hours in the month to determine the average demand for that month. These average demands for the minimum month for each class are added together to determine a total, and the allocation factor for base load plant is the ratio of each class's minimum month average demand to the sum of the minimum month average demands of all classes.

In the case of the residential class, this produces a factor for the allocation of fixed costs associated with base load plant equal to only 42% of the total, which is even smaller than the 47% energy allocation factor for the residential class. The demand allocation factor for a low load factor class like the residential class should be larger than its energy allocation factor. For example, its responsibility for the four summer peak demands is 57%.

# DOES THE CONCEPT OF ALLOCATING BASE LOAD PLANT ON A MEASURE OF CLASS ENERGY MAKE SENSE IN LIGHT OF SYSTEM PLANNING CONSIDERATIONS?

No. The BIP approach attempts to assign only one purpose for each class of plant. In reality, when systems are planned, the utility attempts to install that combination of generation facilities which, giving consideration to fixed costs and variable costs, is expected to serve the needs of all customers, collectively, on a least-cost basis. All plants contribute to meeting peak demands, and the failure to allocate the fixed costs

ALLOCATION METHODS THAT ARE HEAVILY DEPENDENT UPON ENERGY USAGE BY THE VARIOUS CUSTOMER CLASSES?  Yes. In a recent Ameren Missouri electric rate case, Case No. ER-2010-0036, c service studies were offered wherein the allocation basis for fixed generation was a weighted average of class energy consumption and class contribution to demands. In ruling on the case, the Commission rejected these heavily en weighted methods.  In the Ameren Missouri Case, What Percentage of General FIXED COSTS WAS ALLOCATED ON ENERGY UNDER THESE PROPOSALS About 55%.  In the Allocation of Generation Capacity Costs More Head Dependent Upon Class Energy Consumption Under the BIP MET IN THIS CASE THAN WAS TRUE IN THE AMEREN MISSOURI CASE WH THE ENERGY BASED ALLOCATION WAS REJECTED? Yes, much more. It is almost 92% with BIP as compared to 55% in the Ameren of	1		associated with base load plants on a measure of peak demand produces a biased
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18 A Yes, much more. It is almost 92% with BIP as compared to 55% in the Ameren of the	16		IN THIS CASE THAN WAS TRUE IN THE AMEREN MISSOURI CASE WHERE
19 Q HOW HAS GMO ALLOCATED THE MARGIN ON OFF-SYSTEM SALES?  20 A GMO has allocated the margin on off-system sales using a composite demand	17		THE ENERGY BASED ALLOCATION WAS REJECTED?
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20 A GMO has allocated the margin on off-system sales using a composite demand			
	19	Q	HOW HAS GMO ALLOCATED THE MARGIN ON OFF-SYSTEM SALES?
21 energy allocation factor.	20	Α	GMO has allocated the margin on off-system sales using a composite demand and
	21		energy allocation factor.

### Q IS THIS APPROPRIATE?

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A No. This Commission has held in a prior GMO case (ER-2006-0314) and a prior Ameren Missouri case (ER-2010-0036) that it is appropriate to allocate the margin

earned from off-system sales on an energy basis.

The only costs assigned to non-firm off-system sales is the fuel and purchased power costs — the variable costs — hence the appropriateness of using the energy allocator. This is consistent with the way GMO itself allocates the costs relating to the energy portion of firm capacity contracts — using the energy allocator. The reason is simple — the energy allocator is used to allocate variable costs of fuel and purchased power costs relating to retail sales. Using the same rationale, the energy allocator is equally appropriate to use as the allocation factor for both energy of firm (as GMO does) and non-firm off-system sales. (Report and Order, Case No. ER-2006-0314, December 31, 2006)

This is also the most commonly used approach in the industry, and should be used in this case.

### Staff's Study

### 19 Q HOW HAS STAFF ALLOCATED THE FIXED COSTS ASSOCIATED WITH

#### GENERATION INVESTMENT?

Amr. Scheperle states that he has used something which he also calls the BIP method.

In fact, however, Mr. Scheperle has applied what I think is best described as an alternative version of the BIP method. The BIP method described in the National Association of Regulatory Utility Commissioners ("NARUC") *Electric Utility Cost Allocation Manual* ("Manual"), and as presented in this case by GMO, develops separate allocation factors for different categories of plant. The BIP method is not an accepted method in the industry and rarely has been used or even proposed.

Q	HOW DOES MR. SCHEPERLE'S MODIFIED BIP DIFFER FROM THE BIP
	METHOD DESCRIBED IN THE NARUC MANUAL AND AS PROPOSED FOR
	IMPLEMENTATION BY GMO IN THIS CASE?

Α

In Mr. Scheperle's alternate BIP application, he devises a composite allocation factor using a combination of class average demands, class 12 monthly non-coincident peak demands and class three summer month non-coincident peak demands. At each stage of the development of the allocation factor components, he subtracts the demands associated with the previously determined component(s) from the total so as to avoid double counting. The resulting factor is applied to all generation fixed costs.

Because of the way Mr. Scheperle's BIP allocation was constructed in this case, the end result is class allocation factors for generation fixed costs comparable to traditional allocation methods such as the A&E method. Accordingly, while I disagree with the fundamental premise of BIP methods, Mr. Scheperle has implemented it in this case in a way that produces results consistent with generally accepted allocation methods.

# 17 Q HOW HAS STAFF CLASSIFIED GENERATION SYSTEM NON-FUEL O&M 18 EXPENSES?

A With minor exceptions, Mr. Scheperle has essentially used the "expenses follow plant" approach that I have used.

### Symmetry of Fuel and Capital Cost Allocation

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2	Q	ARE	VARIABLE	COSTS	USUALLY	ALLOCATED	ON	THE	BASIS	OF	CLASS
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### **ENERGY REQUIREMENTS, ADJUSTED FOR LOSSES?**

Yes, in the context of traditional studies like coincident peak and A&E, average variable costs are allocated to customers, and average capital costs are allocated to customers. However, in the context of the non-traditional study that GMO has offered, which heavily weights energy in the allocation of fixed or demand-related generation costs, thereby de-averaging the fixed costs, it is not appropriate to average the variable costs.

### USING THE GMO STUDY AS A POINT OF REFERENCE, PLEASE EXPLAIN WHY

### IT IS NOT APPROPRIATE TO ALLOCATE AVERAGE VARIABLE COSTS TO ALL

### CLASSES IN THIS FASHION WHEN USING STUDIES SUCH AS BIP?

The GMO studies allocate significantly more generation fixed costs to high load factor customers than do the traditional studies. In other words, the higher the load factor of a class, the larger the share of the generation fixed costs that gets allocated to the class. If the costs allocated to classes under this method are divided by the contribution of these classes to the system peak demand, or by the A&E demand, the result is a higher capital cost per kW for the higher load factor classes, and a lower capital cost per kW for the low load factor classes. Effectively, this means that the high load factor classes have been allocated an above-average share of capital cost for generation, and the low load factor customer classes have been allocated a below average share of capital costs.

Given the de-averaged allocations of capital cost, it would not be appropriate to charge average variable costs to all classes. Rather, the variable cost allocation

1	should assign to the higher load factor customer classes below average variable cost
2	to correspond to the above-average capital cost (similar to base load units) allocated
3	to them, and the lower load factor classes should get an allocation of these costs that
4	is above the average, corresponding to the lower than average capital cost (i.e.,
5	peaking units) allocated to them.

# 6 Q WHY WOULD IT BE APPROPRIATE TO RECOGNIZE A LOWER VARIABLE 7 COST ALLOCATION TO THOSE CLASSES THAT ARE ALLOCATED A HIGHER

### CAPITAL COST?

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It is not only appropriate, but it is essential if the heavily energy-weighted GMO allocation of generation costs is employed. Failure to make this kind of distinction would give high load factor customers the worst of both worlds – above-average capital costs and average variable energy costs; and the low load factor customers the best of both worlds – below average capital costs and average variable costs.

# 14 Q HAVE YOU PERFORMED ANY CALCULATIONS AND DEVELOPED A 15 SCHEDULE TO ILLUSTRATE THIS?

A Yes, I have. Please refer to Schedule MEB-COS-R-1 attached to this testimony. This schedule compares the MPS generation investment per kW and the variable costs per kWh across classes for the traditional A&E allocation method, the traditional 4CP method and the GMO allocation.

### Q PLEASE EXPLAIN WHAT THIS SCHEDULE SHOWS.

Q

Q

Α

The first three sections of the schedule show that under traditional allocation methods (A&E-4NCP, A&E-2NCP and 4CP), the capacity costs per kW allocated to each class are the same and the variable costs per kWh allocated to each class are the same.

The fourth section shows the allocation results under GMO's BIP allocation method. Note that the impact of BIP is to allocate significantly more capital costs, in fact, 36% more to the Large Power class than under the traditional approaches, which allocate average capacity costs to all classes. Note also that variable costs per kWh are the same for all classes.

Schedule MEB-COS-R-2 shows the skewing graphically on page 1. In contrast, note from page 2 that under the traditional A&E-4NCP method all classes are allocated average fixed costs and average variable costs.

### HAVE YOU PREPARED A SIMILAR ANALYSIS FOR L&P?

A Yes. The L&P analysis appears on Schedule MEB-COS-R-3 and MEB-COS-R-4.

# YOU INDICATED THAT THE VARIABLE COSTS PER KWH ARE THE SAME UNDER GMO'S BIP ALLOCATION. HOW DIFFERENT ARE THE ENERGY COSTS OF THE DIFFERENT GENERATING FACILITIES?

They are quite diverse. For example, the base load coal plants have fuel costs in the range of 1.6¢ to 1.9¢ per kWh, the more efficient gas units have fuel costs of about 6¢ per kWh, and other gas peakers have costs that are 10¢ and higher. (Note: These fuel costs are taken from GMO's 2011 FERC Form 1 report.) Obviously, if some classes are allocated higher capacity costs than others, they should be entitled to at least an above-average share of the energy output from the higher capital cost,

more fuel efficient, base load type generating units, which would make their variable cost per kWh lower than average. The allocation method advanced by GMO does not recognize this relationship, and as a result over-allocates costs to high load factor customers.

Q

Α

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# Q WHAT SHOULD BE CONCLUDED FROM SCHEDULES MEB-COS-R-1 THROUGH MEB-COS-R-4?

These schedules clearly demonstrates that the BIP study that GMO has sponsored is highly non-symmetrical. It burdens high load factor classes with above-average capacity costs, but does not allow them to benefit from the lower variable cost that goes with the higher capacity costs. No theory supports this result and this flawed study should be given no weight.

# HAS THIS ISSUE OF ALLOCATING A BELOW AVERAGE SHARE OF VARIABLE COSTS TO HIGHER LOAD FACTOR USERS PREVIOUSLY BEEN ADDRESSED IN A GMO RATE PROCEEDING?

Yes. Staff witness Lena Mantle addressed this topic in her September 8, 2006 rebuttal testimony in a GMO rate case, Case No. ER-2006-0314. Her testimony discussed planning principles and the relationship between load factors and generation mix. Her testimony clearly demonstrates that as capital cost increases (with higher load factor), energy cost decreases. While her testimony was in the context of jurisdictional allocations, the principle is the same at the class level. In fact, the recognition of the principles at the class level is even more critical since the differences among class load factors are much greater than the differences between jurisdictional load factors.

### **OPC's Recommendation**

1

- 2 Q DID OPC OFFER A CLASS COST OF SERVICE STUDY?
- 3 A No. OPC witness Meisenheimer relied on GMO's BIP study to develop a class
- 4 revenue shift recommendation. Since her recommendation is based on the flawed
- 5 BIP study, it should not be accepted.

### 6 Importance of Precedent

- 7 Q IN EARLIER TESTIMONY, YOU POINTED OUT THAT THE METHODOLOGIES
- 8 BEING SUPPORTED BY GMO AND OPC IN THIS PROCEEDING ARE NOT USED
- 9 IN OTHER JURISDICTIONS AND ARE NOT SUPPORTED BY PRECEDENT OR
- 10 ACCEPTED IN THE INDUSTRY. WHAT IS THE SIGNIFICANCE OF THE FACT
- 11 THAT A METHODOLOGY IS NOT USED IN OTHER JURISDICTIONS?
- 12 A Cost of service studies for electric systems has been performed for well over 50
- 13 years. This means that there has been a significant amount of analysis that has gone
- into the question of determining how best to ascertain cost-causation on electric
- 15 systems, across a broad spectrum of utility circumstances. Methods that have not
- 16 had the benefit of that analysis and withstood the test of time must be viewed with
- 17 skepticism. Proponents of such methods bear a special burden of proving that they
- do a more accurate job of identifying cost-causation than do recognized methods,
- and are not merely ad hoc creations designed simply to support a particular result
- 20 desired by the analyst.

### 21 Q DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?

22 A Yes, it does.

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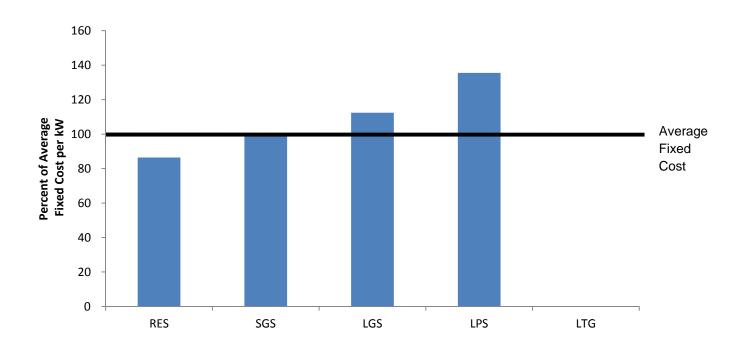
## KCP&L GREATER MISSOURI OPERATIONS COMPANY For All Territories Served as MPS

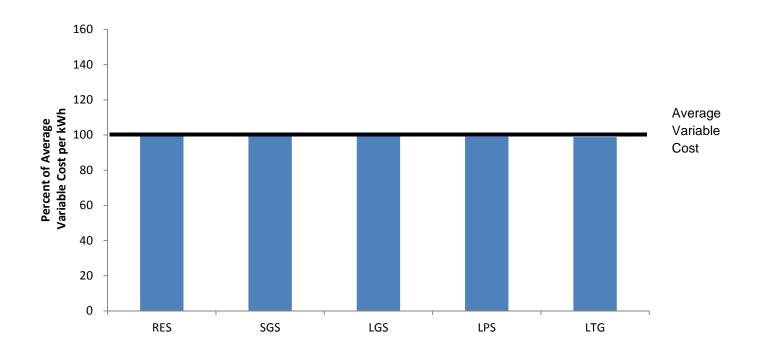
### **Allocation of Fixed Costs and Variable Costs**

Line	Description	MPS Retail	Residential	Small General Service	Large General Service	Large Power Service	Lighting
		(1)	(2)	(3)	(4)	(5)	(6)
			Traditional M	ethods			
	4 NCP A&E						
1	Fixed Cost per kW	\$508	\$508	\$508	\$508	\$508	\$508
2	Index	100	100	100	100	100	100
3	Variable Cost per kWh	2.7¢	2.7¢	2.7¢	2.7¢	2.7¢	2.7¢
4	Index	100	101	100	99	99	99
	2 NCP A&E						
5	Fixed Cost per kW	\$508	\$508	\$508	\$508	\$508	\$508
6	Index	100	100	100	100	100	100
7	Variable Cost per kWh	2.7¢	2.7¢	2.7¢	2.7¢	2.7¢	2.7¢
8	Index	100	101	100	99	99	99
	<u>4 CP</u>						
9	Fixed Cost per kW	\$508	\$508	\$508	\$508	\$508	\$0
10	Index	100	100	100	100	100	0
11	Variable Cost per kWh	2.7¢	2.7¢	2.7¢	2.7¢	2.7¢	2.7¢
12	Index	100	101	100	99	99	99
			GMO's BIP M	lathad			
			GIVIO S DIF IV	<u>letilou</u>			
13 14	Fixed Cost per kW Index	\$508 100	\$439 86	\$503 99	\$571 112	\$689 136	\$0
14	inuex	100	66	99	112	136	0
15 16	Variable Cost per kWh	2.7¢	2.7¢	2.7¢	2.7¢	2.7¢	2.7¢
16	Index	100	101	100	99	99	99

### KCP&L GREATER MISSOURI OPERATIONS COMPANY For All Territories Served as MPS

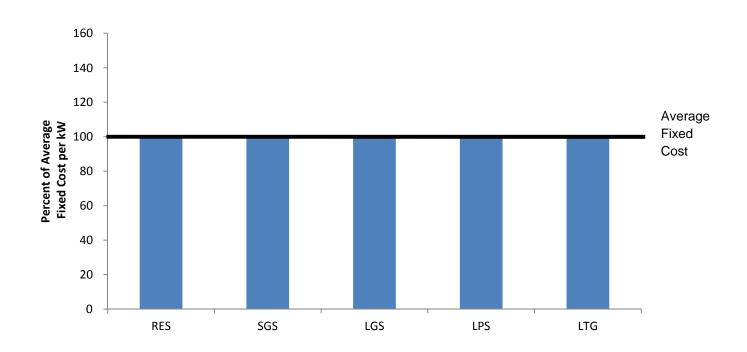
Illustration of Skewed Allocation of Fixed Costs and Variable Costs Under GMO's Base-Intermediate-Peaking COS

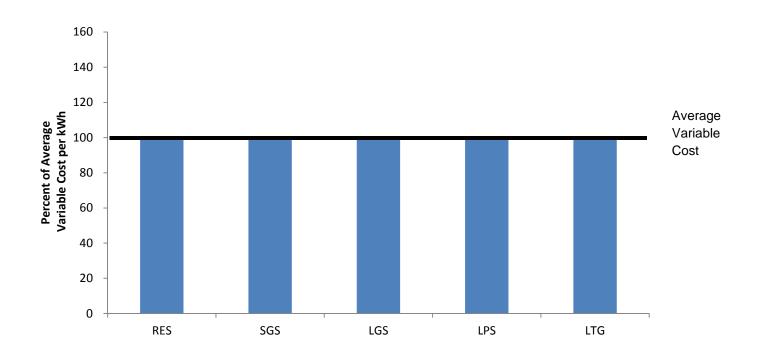




### KCP&L GREATER MISSOURI OPERATIONS COMPANY For All Territories Served as MPS

Allocation of Fixed Costs and Variable Costs Under 4 NCP Average & Excess COS





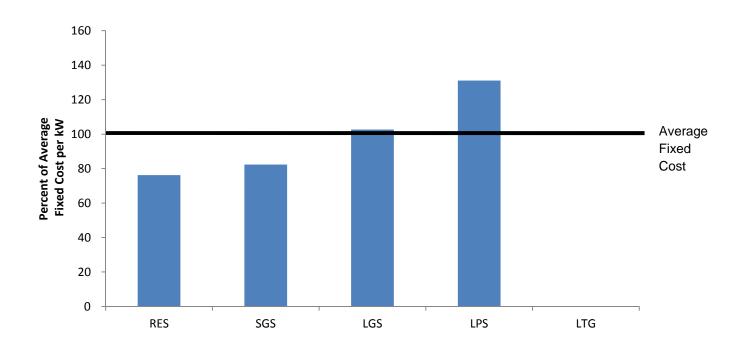
## KCP&L GREATER MISSOURI OPERATIONS COMPANY For All Territories Served as L&P

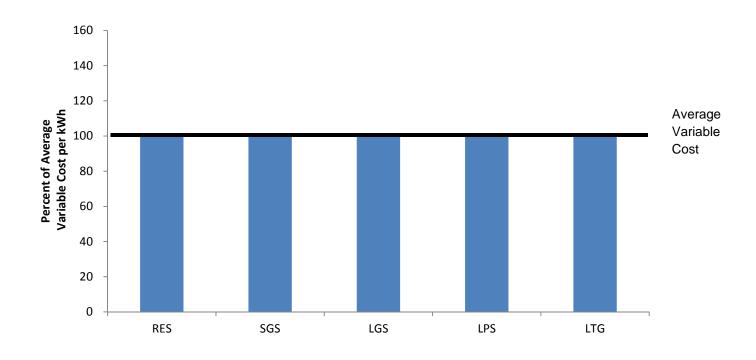
### **Allocation of Fixed Costs and Variable Costs**

Line	Description	L&P Retail	Residential	Small General Service	Large General Service	Large Power Service	Lighting
		(1)	(2)	(3)	(4)	(5)	(6)
			Traditional M	<u>ethods</u>			
	4 NCP A&E						
1	Fixed Cost per kW	\$630	\$630	\$630	\$630	\$630	\$630
2	Index	100	100	100	100	100	100
3	Variable Cost per kWh	2.3¢	2.3¢	2.3¢	2.3¢	2.3¢	2.3¢
4	Index	100	100	100	100	100	100
	2 NCP A&E						
5	Fixed Cost per kW	\$630	\$630	\$630	\$630	\$630	\$630
6	Index	100	100	100	100	100	100
7	Variable Cost per kWh	2.3¢	2.3¢	2.3¢	2.3¢	2.3¢	2.3¢
8	Index	100	100	100	100	100	100
	<u>4 CP</u>						
9	Fixed Cost per kW	\$630	\$630	\$630	\$630	\$630	\$0
10	Index	100	100	100	100	100	0
11	Variable Cost per kWh	2.3¢	2.3¢	2.3¢	2.3¢	2.3¢	2.3¢
12	Index	100	100	100	100	100	100
			GMO's BIP M	<u>lethod</u>			
13	Fixed Cost per kW	\$630	\$480	\$518	\$647	\$826	\$0
14	Index	100	76	82	103	131	0
15	Variable Cost per kWh	2.3¢	2.3¢	2.3¢	2.3¢	2.3¢	2.3¢
16	Index	100	100	100	100	100	100

### KCP&L GREATER MISSOURI OPERATIONS COMPANY For All Territories Served as L&P

Illustration of Skewed Allocation of Fixed Costs and Variable Costs Under GMO's Base-Intermediate-Peaking COS





### KCP&L GREATER MISSOURI OPERATIONS COMPANY For All Territories Served as L&P

Allocation of Fixed Costs and Variable Costs Under 4 NCP Average & Excess COS

