Exhibit No.:	
Issue:	Rate Design
Witness:	Maurice Brubaker
Type of Exhibit:	Rebuttal Testimony
Sponsoring Parties:	Industrials
Case No.:	ER-2010-0356
Date Testimony Prepared:	December 17, 2010

BEFORE THE PUBLIC SERVICE COMMISSION OF THE STATE OF MISSOURI

In the Matter of the Application of KCP&L Greater Missouri Operations Company for Approval to Make Certain Changes in its Charges for Electric Service	**)))))))**	**Case No. ER-2010-0356**

Rebuttal Testimony and Schedules of

Maurice Brubaker

On behalf of

Ag Processing, Inc.
Sedalia Industrial Energy Users Association
Federal Executive Agencies

December 17, 2010

BRUBAKER & ASSOCIATES, INC.
CHESTERFIELD, MO 63017

Project 9216

BEFORE THE PUBLIC SERVICE
COMMISSION OF THE STATE OF MISSOURI

In the Matter of the Application of KCP&L Greater Missouri Operations Company for Approval to Make Certain Changes in its Charges for Electric Service	)	**Case No. ER-2010-0356**

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

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., Sedalia Industrial Energy Users Association and Federal Executive Agencies 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-2010-0356.

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.

M E Brubaker

Maurice Brubaker

Subscribed and sworn to before me this 16th day of December, 2010.

TAMMY S. KLOSSNER
Notary Public - Notary Seal
STATE OF MISSOURI
St. Charles County
My Commission Expires: Mar. 14, 2011
Commission # 07024862

Tammy S Klossner

Notary Public

BEFORE THE PUBLIC SERVICE
COMMISSION OF THE STATE OF MISSOURI

In the Matter of the Application of KCP&L Greater Missouri Operations Company for Approval to Make Certain Changes in its Charges for Electric Service	**Case No. ER-2010-0356**

Rebuttal Testimony of Maurice Brubaker

Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A Maurice Brubaker. My business address is 16690 Swingley Ridge Road, Suite 140, Chesterfield, MO 63017.

Q ARE YOU THE SAME MAURICE BRUBAKER WHO HAS PREVIOUSLY FILED TESTIMONY IN THIS PROCEEDING?

A Yes. I have previously filed direct testimony in this proceeding on December 1, 2010 regarding rate design issues.

Q ARE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE OUTLINED IN THAT TESTIMONY?

A Yes. This information is included in Appendix A to my direct testimony on rate design issues.

Q ON WHOSE BEHALF ARE YOU APPEARING IN THIS PROCEEDING?

A I am appearing on behalf of Ag Processing, Inc., Sedalia Industrial Energy Users Association and Federal Executive Agencies (collectively "Industrials"). 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.

Q WHAT IS THE PURPOSE OF YOUR TESTIMONY?

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. My schedule MEB-COS-R-1 is generic and applies to both MPS and L&P. Schedules MEB-COS-R-2 and MEB-COS-R-3 pertain specifically to MPS, and Schedules MEB-COS-4 and MEB-COS-R-5 pertain specifically to L&P.

Q PLEASE SUMMARIZE YOUR PRIMARY FINDINGS AND CONCLUSIONS.

A My rebuttal testimony may be summarized as follows:

1. The Base-Intermediate-Peaking ("BIP") allocation studies sponsored by GMO and Staff are not supported as to theory or shown to be applicable to the GMO system. These studies significantly over-allocate costs to the larger high-load factor customers.

2. GMO's BIP cost of service study is internally inconsistent in that it allocates a greater share of the generation fixed 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.

3. The Staff also sponsors a version of a BIP study. The methodology differs slightly, but the end result similarly over-allocates costs to the larger high-load factor customers.

4. The Average & Excess ("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.

5. The allocation of transmission plant by GMO and Staff, using 12 monthly coincident peaks, is inappropriate and fails to recognize the importance of system peaks in the design of the transmission system.

6. Staff categorizes an excessive amount of production system non-fuel operation and maintenance ("O&M") expense as variable instead of fixed.

7. GMO allocates margins from off-system sales on demands rather than on energy. No justification is provided for this treatment.

8. OPC's revenue shift proposal is based on GMO's flawed BIP study and should be rejected.

CLASS COST OF SERVICE ISSUES

Q HAVE YOU REVIEWED THE TESTIMONY OF GMO WITNESS PAUL NORMAND AND COMMISSION STAFF WITNESS MICHAEL SCHEPERLE ON THE SUBJECT OF CLASS COST OF SERVICE?

A Yes.

Q DO YOU HAVE REBUTTAL TO THE POSITIONS OF THESE WITNESSES?

A Yes, I do. I disagree with the methods which these witnesses have used for the allocation of generation system fixed costs and with respect to the allocation of certain other components of the cost of service. The allocation of the generation fixed costs is the largest and most important of these issues, and I will address it first.

GMO's Study

Q WHAT METHOD HAS GMO USED FOR THE ALLOCATION OF GENERATION FIXED, OR DEMAND-RELATED, COSTS?

A GMO uses what it describes as the BIP method. With this method, the fixed costs associated with base load generation essentially are allocated on a measure of class energy 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.

Q IS THE BIP STUDY METHODOLOGY ACCEPTED IN THE INDUSTRY?

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 TENANT OF THE BIP METHOD?

A 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 is an assumption that we all know is false. All plants provide capacity value as well as supplying energy. It appears from Mr. Normand's studies that nearly 80% of total generation fixed costs are allocated on the basis of energy consumption.

Q PLEASE EXPLAIN WHAT YOU MEAN WHEN YOU SAY THAT BASE LOAD PLANTS ARE ALLOCATED "ESSENTIALLY" ON THE BASIS OF CLASS ENERGY.

A 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 MPS residential class, this produces a factor for the allocation of fixed costs associated with base load plant equal to 42% of the total, despite the fact that the energy allocation factor for the residential class is 47%, and its responsibility for the four summer peak demands is 60%. Clearly, then, the BIP methodology fails to adequately allocate an appropriate share of the base load units to the residential class.

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

A 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 associated with base load plants on a measure of peak demand produces a biased result.

Q HOW DOES THE RELATIONSHIP BETWEEN FIXED COSTS AND VARIABLE COSTS GUIDE A UTILITY IN SELECTING THE APPROPRIATE MIX OF GENERATION RESOURCES?

A Base load plants have relatively higher fixed costs, but relatively lower variable costs (mostly fuel), as compared to other technology choices. The relationship among technology choices is often described in terms of a "break-even" point, which defines the number of hours of annual operation (out of 8,760 hours per year) that one facility would be economical to operate as compared to another facility. For example, please see Schedule MEB-COS-R-1 attached to this testimony. This schedule illustrates the concept in terms of a comparison between base load generating facilities and peaking facilities. The data sources are indicated on the schedule.

Q WHAT DOES THIS SHOW?

A This shows that a base load generating facility is more economical than the peaking facility as long as it would be expected to operate more than 4,129 hours per year. This is an expected capacity factor of 47%. If a facility would operate fewer than this number of hours, then the peaking facility would be more economical.

Q WHAT ARE THE IMPLICATIONS OF THESE RESULTS FOR COST ALLOCATION?

A Even if one wanted to pursue the kind of disaggregation that the BIP method contemplates, this analysis clearly demonstrates that a base load facility is the least cost facility up to approximately 47% capacity factor. This means that increasing the number of hours of operation beyond 4,129 hours would not change the capacity installation decision. Stated differently, once a customer imposes load that is expected to be present for more than 4,129 hours, the utility would still install the base load generation facility, and use by a customer, or customers collectively, in excess of those break-even hours does not cause the incurrence of any additional capacity costs.

Thus, an allocation of these base load facilities that considers essentially all of the investment to be energy-related is demonstrably wrong. It significantly over-allocates fixed costs to high load factor customers (i.e., those customers with the more consistent load through the 8,760 hours of the year), even though under the BIP conceptual framework much of the kWh used by these customers would not contribute to the decision to construct a facility that would be more costly to build.

Q DID THIS COMMISSION RECENTLY RULE ON THE USE OF DEMAND ALLOCATION METHODS THAT ARE HEAVILY DEPENDENT UPON THE ENERGY USAGE BY THE VARIOUS CUSTOMER CLASSES?

A Yes. In the most recent Ameren Missouri electric rate case, Case No. ER-2010-0036, Staff and OPC had offered cost of service studies wherein the allocation basis for fixed generation cost was a weighted average of class energy consumption and class contribution to peak demands. In ruling on the case, the Commission rejected these heavily energy-weighted methods.

> 10. In starting the process to develop just and reasonable rates, the first question the Commission must resolve is which of the submitted class cost of service studies best describes AmerenUE's cost to serve its various customer classes. As a first step, the Commission will discard the Staff and Public Counsel studies that utilize a Peak and Average Demand production demand allocation method.

> 11. Staff asserts that its Peak and Average Demand allocation method is superior to the Average and Excess method because it considers each class' contribution to the system's total peak rather than each class' excess demand at peak.277 However, what Staff describes as its method's strength is actually its downfall because the Peak and Average demand method double counts the average demand of the customer classes.
>
> (Report and Order, Case No. ER-2010-0036, May 28, 2010, page 84)

Q IN THE AMEREN MISSOURI CASE, WHAT PERCENTAGE OF GENERATION FIXED COSTS WAS ALLOCATED ON ENERGY UNDER STAFF'S AND OPC'S PROPOSALS?

A About 55%.

Q IS THE ALLOCATION OF GENERATION CAPACITY COSTS MORE HEAVILY DEPENDENT UPON CLASS ENERGY CONSUMPTION UNDER THE BIP METHOD IN THIS CASE THAN WAS TRUE IN THE AMEREN MISSOURI CASE WHERE THE ENERGY BASED ALLOCATION WAS REJECTED?

A Yes, much more for MPS. It is 71% with BIP as compared to 55% in the Ameren case.

Q HOW HAS GMO ALLOCATED TRANSMISSION INVESTMENT?

A GMO uses the average of the 12 monthly coincident peaks.

Q DO YOU AGREE WITH THIS ALLOCATION APPROACH FOR TRANSMISSION?

A No, I do not. I believe that it is appropriate to allocate the transmission investment on an average and excess or summer coincident peak method, much like generation plant would be allocated. After all, the transmission facilities need to meet the maximum demands on the utility system, and not the average of the 12 monthly demands. Peaks drive the need for investment in transmission plant, and it is my recommendation that GMO's proposed allocation of transmission investment be rejected.

Q HOW HAS GMO ALLOCATED THE MARGIN ON OFF-SYSTEM SALES?

A GMO has allocated the margin on off-system sales using a BIP demand allocation factor.

Q IS THIS APPROPRIATE?

A No. This Commission has held in a prior KCPL 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 KCPL 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 KCPL does) and non-firm off-system sales. (Report and Order, Case No. ER-2006-0314, December 31, 2006, page 39)

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

Staff's Study

Q HOW HAS STAFF ALLOCATED THE FIXED COSTS ASSOCIATED WITH GENERATION INVESTMENT?

A Staff has essentially followed a BIP approach. The Staff's approach is slightly different mechanically, but the end result is not much different. For example, instead of using minimum month average demand as a basis for allocating base load plant, Staff uses annual average energy, which is identical to an allocation based on the annual kWh of each class.

Q HOW HAS STAFF ALLOCATED FUEL COSTS?

A Staff's allocation factor development is very complex, and consists of developing sets of percentages and then weighting them by other sets of percentages. As a result, it is not entirely clear what Staff's assumptions are with respect to the allocation of variable cost. It does appear, however, that Staff may have attempted to allocate the variable cost of each classification of plant on something other than annual kilowatthours by class. If so, Staff has at least attempted to recognize some association of variable cost with the different types of plants that it allocates in various ways. However, the basic premise, including the allocation of 100% of base load plant on class energy, is so fundamentally flawed that the study is unreliable and should be rejected.

Q HOW HAS STAFF ALLOCATED TRANSMISSION INVESTMENT?

A Staff has allocated transmission investment using the 12 monthly coincident peaks. This is inappropriate for the reasons stated previously in my response to GMO.

Q HOW HAS STAFF ALLOCATED GENERATION O&M EXPENSE OTHER THAN FUEL AND VARIABLE PURCHASED POWER?

A Staff has divided these costs into fixed and variable cost categories. Approximately 46% of these dollars are categorized as variable and allocated on class energy consumption.

Q IS THIS APPROPRIATE?

A No. I believe it is more appropriate to allocate all of the generation O&M expense, other than fuel and variable purchased power, on the basis of the fixed cost allocation factor, namely, on a demand basis. This is consistent with the concept that "expenses should follow plant" and also recognizes that the operation of and the maintenance on generation facilities is a function of the existence of the plant and the passage of time, more so than the hours of operation of the facilities.

Symmetry of Fuel and Capital Cost Allocation

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

A 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 studies that GMO and Staff have offered, all of which are heavily weighted toward 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.

Q 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?

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

Q WHY WOULD IT BE APPROPRIATE TO RECOGNIZE A LOWER VARIABLE COST ALLOCATION TO THOSE CLASSES THAT ARE ALLOCATED A HIGHER CAPITAL COST?

A 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.

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

A Yes, I have. Please refer to Schedule MEB-COS-R-2 attached to this testimony. This schedule compares, for MPS, the 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.

A 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, 27% 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-3 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.

Schedules MEB-COS-R-4 and MEB-COS-R-5 show the same information with respect to L&P and the same conclusions follow.

Q 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?

A They are quite diverse. For example, the fuel cost is about 1.2¢ per kWh for Iatan, and 1.8¢ per kWh for Jeffery Energy Center. Costs for the less efficient Sibley coal units are about 2.4¢ per kWh and for coal-based generation from Lake Road about 2.7¢ per kWh. The costs associated with generation from GMO's various peaking units generally is in excess of 10¢ per kWh. (Note: These fuel costs are taken from GMO's 2009 FERC Form 1 report.) Obviously, if some classes are allocated higher fixed costs than others (i.e., a larger share of the baseload units), 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 WHAT SHOULD BE CONCLUDED FROM SCHEDULES MEB-COS-R-2 THROUGH MEB-COS-R-5?

A 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.

Q HAS THIS ISSUE OF ALLOCATING A BELOW AVERAGE SHARE OF VARIABLE COSTS TO HIGHER LOAD FACTOR USERS RECENTLY BEEN ADDRESSED IN A KCPL RATE PROCEEDING?

A Yes. Staff witness Lena Mantle addressed this topic in her September 8, 2006 rebuttal testimony in a recent KCPL 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

Q DID OPC OFFER A CLASS COST OF SERVICE STUDY?

A No. OPC witness Meisenheimer relied on GMO's BIP study to develop a class revenue shift recommendation. Since her recommendation is based on the flawed BIP study, it should not be accepted.

Importance of Precedent

Q IN EARLIER TESTIMONY, YOU POINTED OUT THAT STUDIES BEING PROPOSED BY GMO AND STAFF IN THIS PROCEEDING ARE NOT USED IN OTHER JURISDICTIONS AND ARE NOT SUPPORTED BY PRECEDENT OR ACCEPTANCE IN THE INDUSTRY. WHAT IS THE SIGNIFICANCE OF THE FACT THAT A METHODOLOGY IS NOT USED IN OTHER JURISDICTIONS?

A Cost of service studies for electric systems has been performed for well over 50 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 systems, across a broad spectrum of utility circumstances. Methods that have not had the benefit of that analysis and withstood the test of time must be viewed with 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 desired by the analyst.

Q DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?

A Yes, it does.

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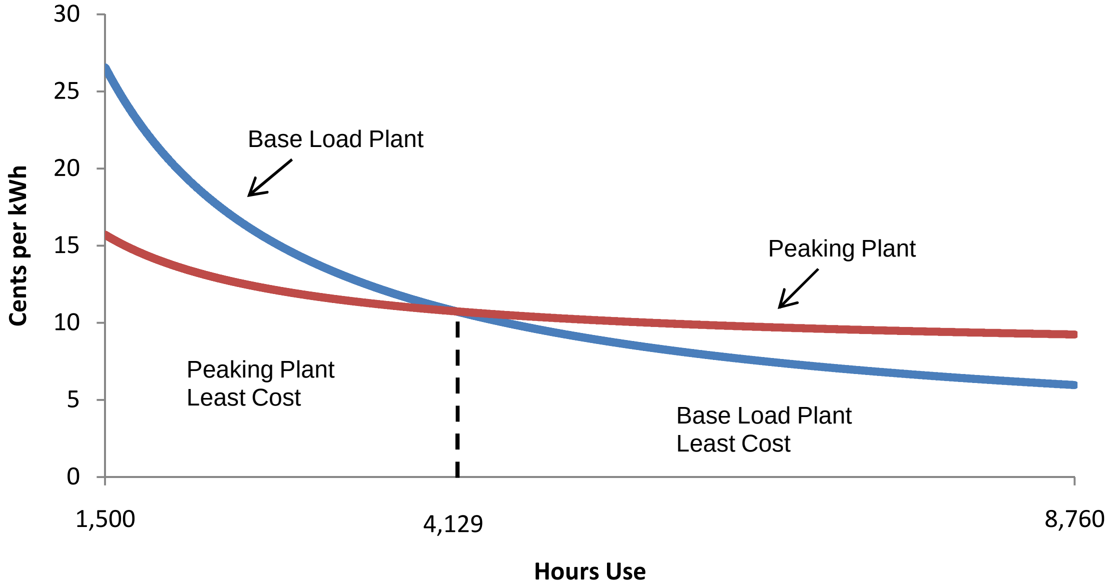
KCP&L GREATER MISSOURI OPERATIONS COMPANY

Generation Technology Break-Even Point



Line	Technology	Installed Cost per kW (1)	Times 15% (2)	Fixed O&M (3)	Total Fixed (4)	Variable ¢/kWh Fuel (5)	Variable ¢/kWh O&M (6)	Variable ¢/kWh Total (7)
1	Coal	$2,300	$345	$28	$373	1.2*	0.5	1.7
2	Combustion Turbine	$700	$105	$12	$117	7.5**	0.4	7.9

Break-Even Point:

3
4

$$\frac{\$373 - \$117}{\$0.079 - \$0.017} = 4{,}129 \text{ hours}$$

Source: 2010 EIA Annual Energy Outlook
Energy Market Module unless otherwise noted

* Iatan
** 10,800 Btu/kWh at $7.00/MMBtu

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

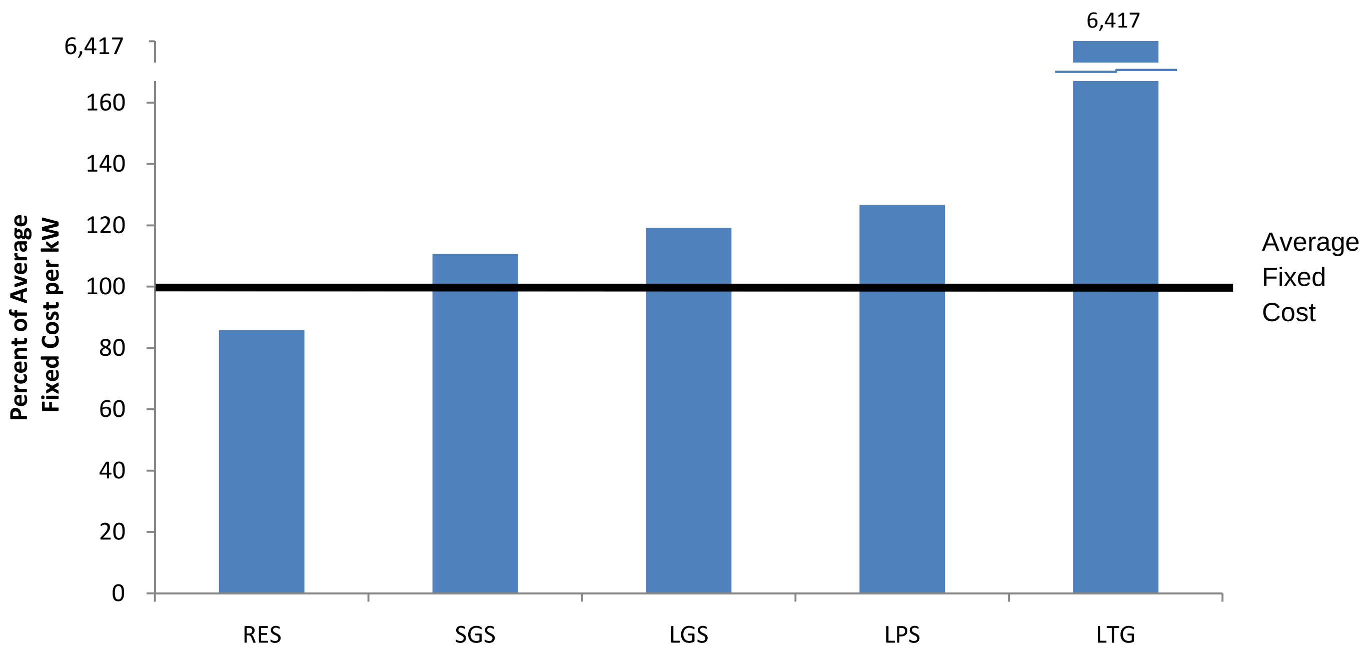
Allocation of Fixed Costs and Variable Costs

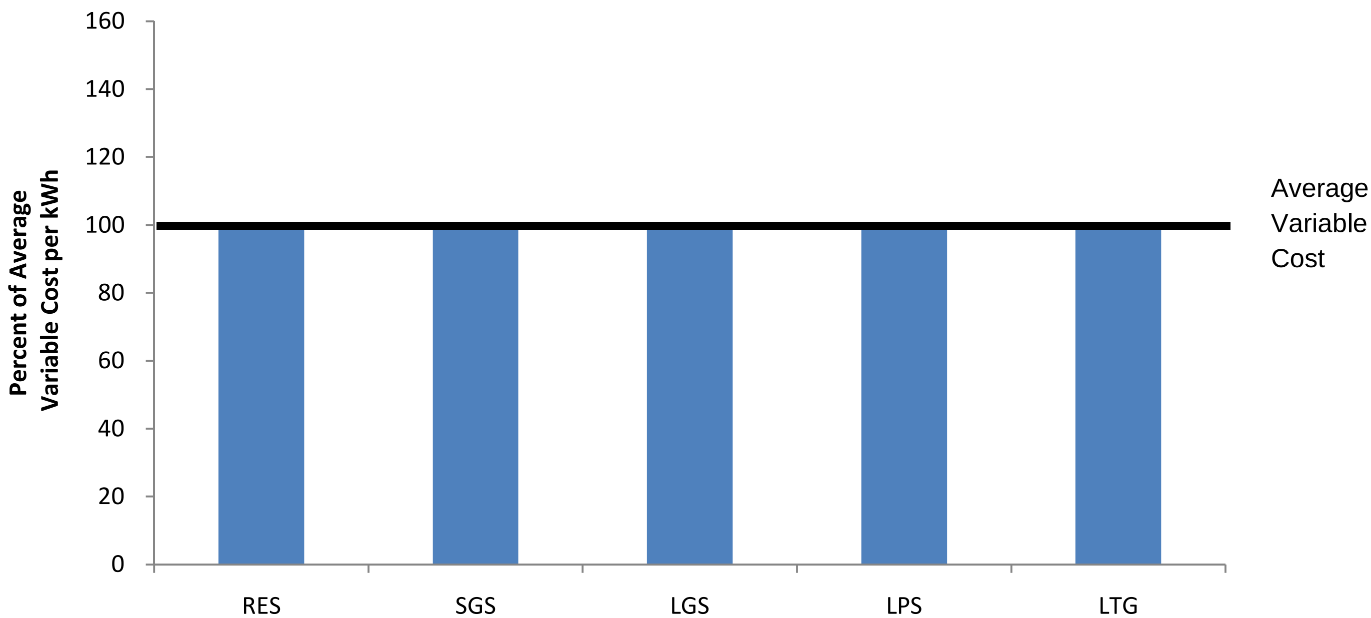
Line	Description	MPS Retail	Residential	Small General Service	Large General Service	Large Power Service	Lighting
		(1)	(2)	(3)	(4)	(5)	(6)
	Traditional Methods						
	4 NCP A&E						
1	Fixed Cost per kW	$564	$564	$564	$564	$564	$564
2	Index	100	100	100	100	100	100
3	Variable Cost per kWh	3.0¢	3.0¢	3.0¢	3.0¢	3.0¢	3.0¢
4	Index	100	100	100	100	100	100
	2 NCP A&E						
5	Fixed Cost per kW	$564	$564	$564	$564	$564	$564
6	Index	100	100	100	100	100	100
7	Variable Cost per kWh	3.0¢	3.0¢	3.0¢	3.0¢	3.0¢	3.0¢
8	Index	100	100	100	100	100	100
	4 CP						
9	Fixed Cost per kW	$564	$564	$564	$564	$564	$564
10	Index	100	100	100	100	100	100
11	Variable Cost per kWh	3.0¢	3.0¢	3.0¢	3.0¢	3.0¢	3.0¢
12	Index	100	100	100	100	100	100
	GMO's BIP Method						
13	Fixed Cost per kW	**$564**	**$484**	**$624**	**$671**	**$714**	**$36,170**
14	Index	**100**	**86**	**111**	**119**	**127**	**6,417**
15	Variable Cost per kWh	3.0¢	3.0¢	3.0¢	3.0¢	3.0¢	3.0¢
16	Index	100	100	100	100	100	100

KCP&L GREATER MISSOURI OPERATIONS COMPANY

For All Territories Served as MPS

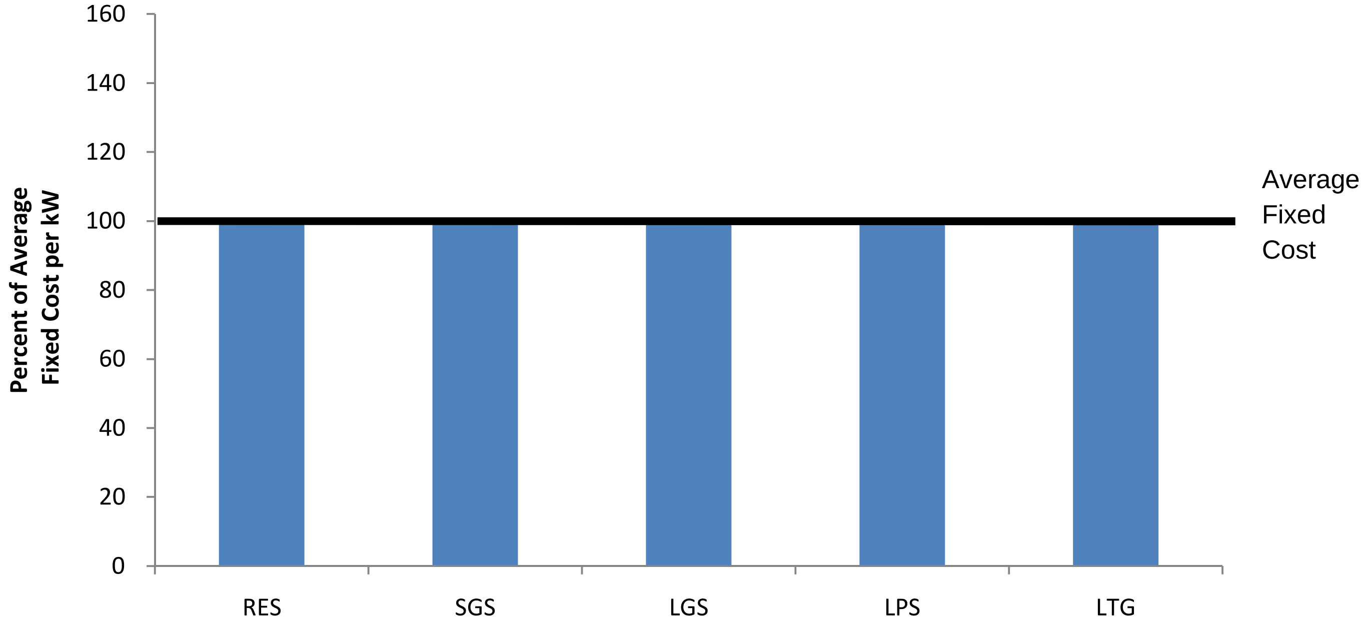
Illustration of Skewed Allocation of
Fixed Costs and Variable Costs Under
<u>GMO's Base-Intermediate-Peaking COS</u>

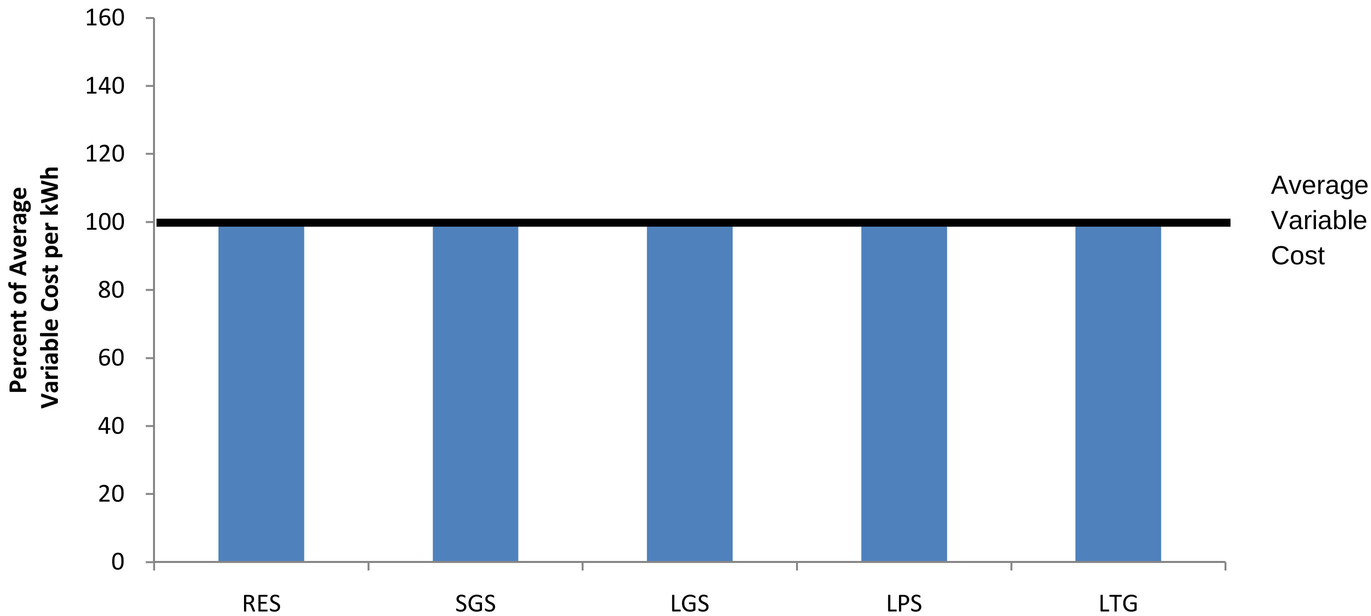




KCP&L GREATER MISSOURI OPERATIONS COMPANY
For All Territories Served as MPS

Allocation of Fixed Costs and Variable Costs Under
<u>4 NCP Average & Excess COS</u>





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 (1)	Residential (2)	Small General Service (3)	Large General Service (4)	Large Power Service (5)	Lighting (6)
	Traditional Methods						
	4 NCP A&E						
1	Fixed Cost per kW	$563	$563	$563	$563	$563	$563
2	Index	100	100	100	100	100	100
3	Variable Cost per kWh	2.8¢	2.8¢	2.8¢	2.8¢	2.8¢	2.8¢
4	Index	100	100	100	100	100	100
	2 NCP A&E						
5	Fixed Cost per kW	$563	$563	$563	$563	$563	$563
6	Index	100	100	100	100	100	100
7	Variable Cost per kWh	2.8¢	2.8¢	2.8¢	2.8¢	2.8¢	2.8¢
8	Index	100	100	100	100	100	100
	4 CP						
9	Fixed Cost per kW	$563	$563	$563	$563	$563	$563
10	Index	100	100	100	100	100	100
11	Variable Cost per kWh	2.8¢	2.8¢	2.8¢	2.8¢	2.8¢	2.8¢
12	Index	100	100	100	100	100	100
	GMO's BIP Method						
13	Fixed Cost per kW	**$563**	**$371**	**$583**	**$624**	**$782**	**$22,339**
14	Index	**100**	**66**	**104**	**111**	**139**	**3,966**
15	Variable Cost per kWh	2.8¢	2.8¢	2.8¢	2.8¢	2.8¢	2.8¢
16	Index	100	100	100	100	100	100

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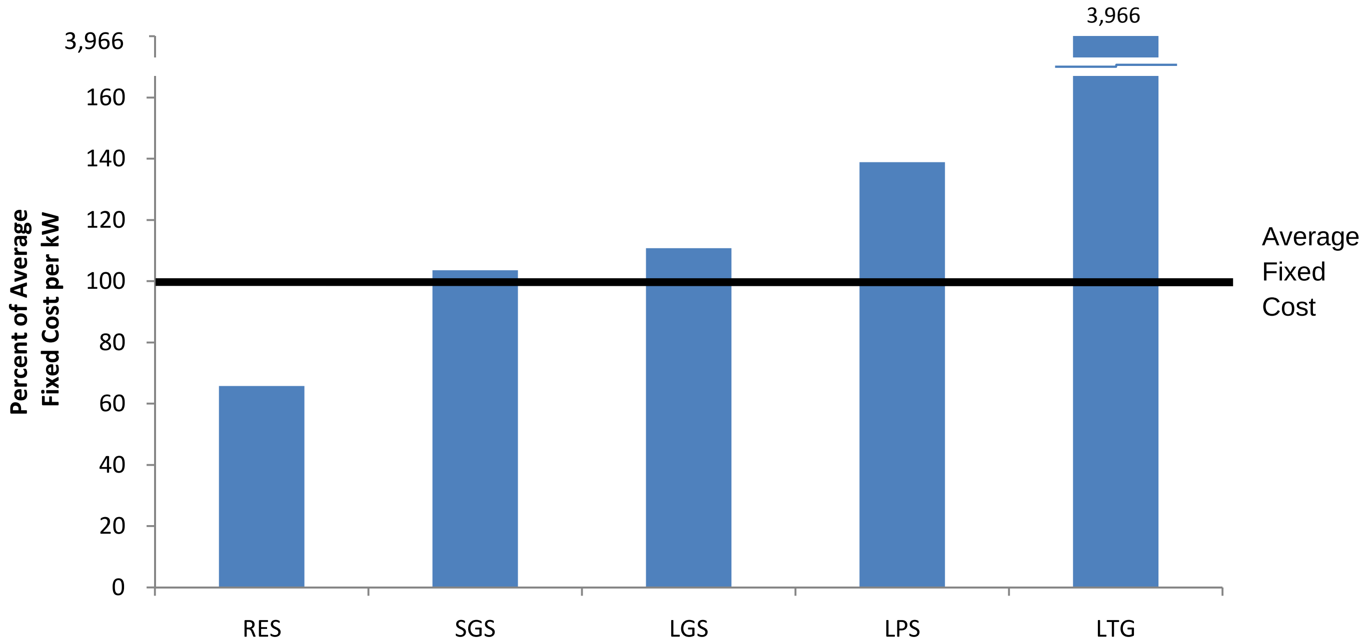
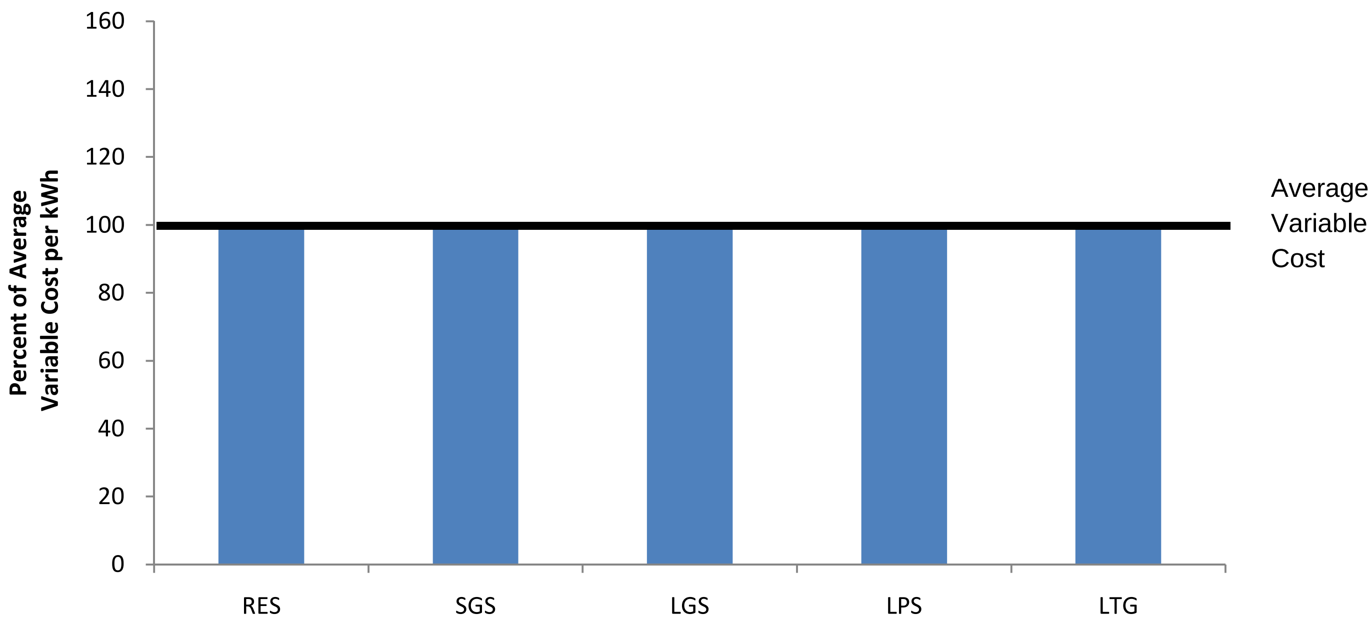
Illustration of Skewed Allocation of
Fixed Costs and Variable Costs Under
<u>GMO's Base-Intermediate-Peaking COS</u>





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