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MISSOURI PUBLIC SERVICE COMMISSION

CASE NO.: ER-2010-0355

SURREBUTTAL TESTIMONY

OF

LARRY W. LOOS

ON BEHALF OF

KANSAS CITY POWER & LIGHT COMPANY

Kansas City, Missouri January 2011

*** Designates "Highly Confidential" Information Has Been Removed. Certain Schedules Attached To This Testimony Designated "(HC)" Have Been Removed. Pursuant To 4 CSR 240-2.135.

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KANSAS CITY POWER & LIGHT COMPANY

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SURREBUTTAL TESTIMONY

OF

LARRY W. LOOS

Case No. ER-2010-0355

INTRODUCTION

1	Q:	Please state your name and business address.				
2	A:	Larry W. Loos, 11401 Lamar, Overland Park, KS, 66211.				
3	Q:	Are you the same Larry W. Loos who prefiled Direct and Rebuttal Testimony in				
4		this matter?				
5	A:	Yes, I am.				
6	Q:	What is the purpose of your surrebuttal testimony?				
7	A:	I will respond to the rebuttal testimony of Staff Witness Cary G. Featherstone regarding				
8		the jurisdictional allocation of cost. In this regard, as does Mr. Featherstone, I will focus				
9		on the issue of the allocation of off-system sales margins to jurisdiction.				
10	Q:	Do you have any general observations concerning Mr. Featherstone's rebuttal				
10 11	Q:					
	Q: A:	Do you have any general observations concerning Mr. Featherstone's rebuttal				
11		Do you have any general observations concerning Mr. Featherstone's rebuttal testimony?				
11 12		Do you have any general observations concerning Mr. Featherstone's rebuttal testimony? Yes, I have two. First, based on my reading of Mr. Featherstone's rebuttal testimony, I				
11 12 13		Do you have any general observations concerning Mr. Featherstone's rebuttal testimony? Yes, I have two. First, based on my reading of Mr. Featherstone's rebuttal testimony, I note a decided effort to confuse the issue. The issue with respect to the allocation of off-				
11 12 13 14		Do you have any general observations concerning Mr. Featherstone's rebuttal testimony? Yes, I have two. First, based on my reading of Mr. Featherstone's rebuttal testimony, I note a decided effort to confuse the issue. The issue with respect to the allocation of off-system sales margins is simple. Should the Missouri Commission adopt a capacity-based				
11 12 13 14 15		Do you have any general observations concerning Mr. Featherstone's rebuttal testimony? Yes, I have two. First, based on my reading of Mr. Featherstone's rebuttal testimony, I note a decided effort to confuse the issue. The issue with respect to the allocation of off-system sales margins is simple. Should the Missouri Commission adopt a capacity-based allocation, as I recommend, or an energy based allocation, as recommended by Staff.				

allocator while Missouri relies on a 4CP capacity cost allocator has nothing to do with the
 determination of the proper basis to allocate off-system sales margins in this case.

Second, with limited exceptions Mr. Featherstone has failed to support his allegations with definitive evidence. He concludes that certain relationships exist, but he has failed to link what he identities as the causal factor with his implied result. For example, he makes the counter-intuitive claim that Missouri's higher load factor results in increased off-system sales. However, he offers no proof that indeed higher load factor results in increased off-system sales. To the contrary, as I demonstrate, Missouri's higher load factor results in a decreased level of off-system sales.

10 Q: How have you organized the balance of you surrebuttal testimony?

11 A: I generally address issues in the same order as presented by Mr. Featherstone.

Q: At Page 1, Line 22, Mr. Featherstone characterizes your proposed allocation of offsystem sales margins as "uniquely different" from the manner parties and the
Commission have assigned margins in past cases. Is this a fair characterization?

15 A: No, it is not. Mr. Featherstone's own testimony demonstrates that my proposal is neither 16 unique nor different. At the top of Page 28 of his rebuttal testimony, Mr. Featherstone 17 presents a table of the methods historically proposed and approved by the Commission to 18 allocate off-system sales margins¹ since the early 1980's. As he shows, the Staff 19 recommended and the Commission adopted my recommended capacity based allocation 20 of off-system sales margins in Cases ER-83-49 and ER-85-185. Thus, the capacity

¹ The table shown by Mr. Featherstone at the top of Page 28 does not indicate that the allocation methods shown are for the allocation of off-system sales margins. In his testimony immediately preceding and immediately after this table, Mr. Featherstone specifically states that the allocation methods shown relate to the allocation of off-system sales margin.

allocation I recommend was embodied in KCP&L's rates from the early 1980s through
 2006.

As Mr. Featherstone's Page 28 table indicates, my recommendation is neither
unique nor different.

5 It was only in Case ER-2006-0314, in response to KCP&L's proposal to use 6 "unused energy" to allocate off-system sales margins, that Staff proposed and the 7 Commission adopted the energy allocation Mr. Featherstone recommends in this case.

8 Q: Mr. Featherstone suggests on Page 2, Line 2 of his rebuttal testimony, that your 9 recommended method allocates a "disproportionate share" of off-system sales 10 margins to Kansas, which results in a higher revenue requirement to Missouri retail 11 customers. Do you agree?

A: No, I do not. My recommendation does not result in allocating a disproportionate share
 of off-system sales margins to Kansas or any other jurisdiction. I do agree that, with all
 other factors being equal, my recommendation results in a higher Missouri revenue
 requirement than Mr. Featherstone's recommended energy allocation.

Q: Do you agree with Mr. Featherstone's suggestion on Page 2, Line 20 of his rebuttal
 testimony that your recommended demand allocation of off-system sales margin is
 at the expense of Missouri customers and benefits the Company because of a
 conflicting allocation method used by the Kansas jurisdiction?

A: I do not agree that my recommendation is at the expense of Missouri customers.
Although the Missouri revenue requirement is higher, I believe my recommendation
results in Missouri customers receiving their fair share of the benefit of off-system sales.

While my recommendation benefits the Company, it has nothing to do with the allocation used in Kansas. Very simply, my recommendation results in a smaller difference between the allocation method currently employed in Kansas, thus reducing the confiscatory effect of the different allocation bases used by Missouri and Kansas.

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EXECUTIVE SUMMARY

Q: At Page 3, Line 3 of his rebuttal testimony, Mr. Featherstone suggests there may be
some question of whether KCPL will under-recover over \$5 million because of
different allocation methods used in Missouri and Kansas. Is there any doubt that
KCPL will suffer an underrecovery?

No, there is absolutely no doubt. Mr. Featherstone would have the Commission believe 11 A: that the issue of the use of different allocation bases is no different than the different 12 regulatory treatments in Missouri and Kansas. I agree that the Missouri and Kansas 13 Commissions have reached different decisions regarding construction work in progress, 14 rate of return, capital structure, depreciation, etc. However, as I point out in my direct 15 testimony, I am not concerned with these differences. My concern is that the Company 16 17 be permitted to recover its total revenue requirement whatever it may be. The difference in allocation bases results in some revenue requirements to which the Missouri 18 19 Commission finds the Company entitled but which the Company cannot collect. This 20 occurs because the use of different allocation bases results in revenue requirements 21 falling outside the two jurisdictions.

In setting rates, the first step is to determine the total revenue requirement, that is, the "whole pie." The jurisdictional allocation splits this pie among the various

jurisdictions. Whatever the magnitude of the pie, the jurisdictional allocation should
 result in the recovery by the Company of the entire pie. If not, the Company is forced to
 subsidize its customers.

The use of Jurisdictional allocations split the costs between jurisdictions. 4 different allocations in Missouri and Kansas results in the split of costs among Missouri, 5 Kansas, and FERC that does not total 100 percent. The use of different allocations 6 results in an implied allocation of costs to the Company that it cannot recover from 7 customers. When the Missouri Commission uses an allocation basis, costs are directly 8 allocated to Missouri jurisdictional customers. However, in that allocation there is an 9 implicit allocation of the same costs to Kansas jurisdictional customers. If Kansas does 10 not rely on the same allocation basis as Missouri, KCP&L subsidizes native load 11 12 customers.

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JURISDICTIONAL ALLOCATION FAIRNESS

Is KCP&L's under-recovery due to different allocations of off-system sales margins 15 **O**: 16 largely caused by the Kansas Commission's continued use of the unused energy allocator, as Mr. Featherstone alleges on Page 4, Line 8 of his rebuttal testimony? 17 No. KCP&L's under-recovery is no more due to the Kansas Commission's use of the 18 A: 19 unused energy allocator than it is due to the Missouri Commission's change from a 20 capacity allocator to an energy allocation factor. Mr. Featherstone wants to blame KCP&L and Kansas, while the Kansas Staff wants to blame Missouri. The issue should 21 not be who is to blame. The issue should be how to eliminate the problem fairly and 22 23 reasonably.

1	I show in Schedule LWL2010-5, Sheet 2 to my Direct Testimony that due to
2	differences in the allocation bases used to allocate off-system sales margin, KCP&L fails
3	to recover \$5.6 million of its revenue requirement. ² In order to identify how much is due
4	to the unused energy allocator used in Kansas and how much is due to the energy
5	allocator used in Missouri, some point of reference must be established. Since a
6	capacity-based allocation was relied upon prior to KCP&L's introduction of the unused
7	energy allocator in 2006, a capacity-based allocation reasonably serves as that point of
8	reference. Relative to a 4CP capacity allocator, KCP&L fails to recover \$1.6 million in
9	costs as a result of Kansas using a 12CP based unused energy allocator, instead of the
10	capacity allocator relied on by the Missouri Staff and Commission prior to 2006.
11	KCP&L fails to recover an additional \$4.0 million as a result of using an energy allocator
12	in Missouri, instead of the previously used capacity allocator. Clearly, the larger under
13	recovery relates to the change from a capacity based allocator to an energy based
14	allocator in Missouri.

Q: Why did you use a 4CP allocation basis in your preceding answer when the Kansas Commission has not adopted its use?

A: My response related solely to the implications of the allocation of off-system sales
margins. Although the 4 CP method is part of the Company's application, whether the
Kansas Commission uses a 12CP or 4CP basis does not relate to the method of allocating
off-system sales margin.

 $^{^2}$ This \$5.6 million figure reflects the allocation of off-system sales margins to Kansas using an unused energy allocator developed using a 12CP capacity cost allocator. If a 4CP capacity cost allocator is used to develop the unused energy allocator for Kansas, KCP&L would fail to recover \$6.5 million.

Q: Do you have any observation regarding Mr. Featherstone's statement in his rebuttal testimony (Page 5, Lines 3-6) that "the responsibility for correcting any such 'under recovery' of any of these operational issues should lie squarely on the shoulders of the Company itself for proposing differing methods and agreeing to those methods in settlement agreements made in both jurisdictions."

A: Yes, I do. The Company in good faith proposed changes in allocation methods. Because
of actions by the Kansas and Missouri Commissions, KCP&L now finds itself in the
position where it fails to recover all of its costs. In this case, all that I am recommending
is the Missouri Commission return to the allocation basis that it approved prior to
KCP&L's proposed change in the allocation basis used to allocate off-system sales
margins.

As for Mr. Featherstone's repeated assertion that KCP&L brought the problem 12 13 upon itself by entering into settlement agreements, KCP&L apparently believed that there was value to resolve specific rate cases through the stipulation and agreements agreed to. 14 However, with the exception of KCP&L's agreement in Kansas to use the 12CP capacity 15 based allocation through 2010, I am unaware of any provision in any of the settlements 16 17 that suggests that the parties are forever bound to their terms. Except where expressly agreed to by the parties, the settlements provide that no party (including the Commission) 18 is bound by any of the agreed treatments.³ 19

³ As an example, in the Stipulation and Agreement resolving the issues in Kansas Corporation Docket No. 04-KCPE-1025-GIE, KCP&L agreed to, among other things, the use of the unused energy allocator for the allocation of off-system sales margins. That Stipulation and Agreement expressly provides that "the parties to the Agreement shall not be prejudiced, bound by, or in any way affected by the terms of this Agreement: (a) in any future proceeding; (b) in any proceeding currently pending under a separate docket; and/or (c) in this proceeding should the Commission decide not to approve this Agreement in the instant proceeding."

OFF-SYSTEM SALES ALLOCATIONS

Q: Do you agree that your recommended use of a demand allocator to allocate offsystem sales margin is "non-traditional" and "inconsistent" as Mr. Featherstone
alleges at Page 6. Line 16 of his rebuttal testimony?

5 A: Certainly not. Clearly, my proposal is traditional since the Staff recommended and the 6 Commission approved capacity based allocations of off-system sales margins in 7 KCP&L's rate cases prior to 2006. His claim that the use of a demand allocator is 8 inconsistent is baseless.

9 Mr. Featherstone's attempt, beginning on Page 6, Line 19, to explain why a demand allocator is inconsistent completely misses the mark. He admits that the 10 Company makes off-system sales when it has "excess idle capacity." However, the level 11 of "excess idle capacity" is, in part, a function of the level of sales because every kWh 12 sold to native load customers is a kWh that is not available to sell off system. Mr. 13 Featherstone and I both recommend allocating the fixed costs associated with that excess 14 capacity (as well as all other capacity) based on a capacity allocator. 15 Since the 16 responsibility for the costs of this "excess idle capacity" is in proportion to each jurisdiction's capacity requirement, the benefit derived from its use to generate energy 17 sold off-system should likewise be distributed in proportion to each jurisdiction's 18 19 capacity requirement.

He suggests at Page 7, Line 8 that off-system sales revenues are allocated based on an energy factor. This statement is misleading, as he clarifies in the next sentence, that Staff uses an energy allocator to allocate both fuel cost and margins, but that the Company allocates margins using a demand allocator. Off-system sales margins are

equal to off-system sales revenues less the out-of-pocket⁴ cost associated with generating
 the energy sold off-system.

Mr. Featherstone suggests at Page 7, Line 13, that "allocating the variable 3 components of off-system sales margins using the demand allocator is not consistent with 4 the way other fuel components are allocated." However, there are no variable 5 components of off-system sales margins. Off-system sales margin is what is left over 6 after the variable costs associated with generating energy sold off-system are eliminated 7 8 from total off-system sales revenues. Mr. Featherstone would allocate the variable 9 component of off-system sales revenues based on energy and allocate the non-variable 10 component (margins) in the same manner. This treatment is no different than allocating 11 fuel costs and fixed power supply costs, based on energy.

Q: Mr. Featherstone suggests at Page 10, Line 4 of his rebuttal testimony that "offsystem sales margins also represent a contribution to the overall revenue
requirement cost structure of the Company, not only to power supply costs." Do
you have any observations?

A: Yes, I do. I should first, however, clarify what are included in off-system sales revenues. While throughout my testimony I have addressed off-system sales solely in terms of power supply, there is a component related to the cost of transmission related to delivering energy from the Company's power supply resources to the off-system customer. In Schedule LWL2010-5, I show that in addition to the \$213.63 million in offsystem sales revenues associated with the power supply function, there is an additional

⁴ Implicit in Staff's allocation is the allocation of variable cost to off-system sales at system wide average unit cost. The Company develops a slightly higher variable cost associated with off-system sales based on examination of the marginal cost of generation during each hour of the year.

\$10.81 million related to recovery of transmission costs incurred in delivering energy offsystem. As I show in Schedule LWL2010-5, I have credited these revenues to transmission system costs to eliminate the costs related to transmission of energy offsystem from the costs allocated to native load customers.

5 Mr. Featherstone would have the Commission believe that off-system sales 6 margins (off-system sales revenues less out-of-pocket cost) represent a contribution to the 7 Company's total revenue requirement, not solely to the power supply (and transmission) 8 revenue requirement. If Mr. Featherstone actually believes that off-system sales margins 9 represent a contribution to the Company's total revenue requirement, he should have 10 recommended allocating off-system sales margins based on total system revenue 11 requirements exclusive of fuel and variable costs.

12 Mr. Featherstone's suggestion at Page 10, Line 14 that the sale of energy offsystem is simply another service the Company engages in, indicates that he doesn't 13 14 understand the difference between the public service obligation that the Company has to serve native load customers and the sale of a commodity when energy is available and 15 market prices sufficient to off-set the cost of generating the energy sold. The Company 16 17 has no investment in facilities devoted to selling energy off-system. The sale of energy 18 off-system relies solely on the Company's production and transmission facilities, but only 19 to the extent that native load requirements have been satisfied. Any other costs related to 20 the sale of energy off-system do not involve use of facilities and are minor.

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Q: At Page 11, Line 6 of his rebuttal testimony, Mr. Featherstone states that in past rate cases, Staff used a demand allocator to assign off-system sales margins but that

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the off-system sales market was insignificant compared to today's level. Do you have any observation?

- 3 A: Yes, I do. Whether insignificant or not, Staff did use a demand allocator. Further, it 4 makes no sense to go to the extra effort to separate off-system sales revenues into two 5 components (out-of-pocket cost and margin) which, are then allocated separately when 6 revenues are relatively insignificant and then abandon the approach when revenues are 7 significant.
- 8 Q: Mr. Featherstone states at Page 11, Line 16, that if the Commission adopts your 9 proposal, the Missouri retail jurisdiction would be required to pay a higher portion 10 of plant investment compared to the other jurisdictions for the facilities required to 11 generate these non-firm off-system sales. Do you agree?
- 12 A: No. I do not agree that Missouri would pay a higher portion of these fixed costs. 13 However, the level of fixed power supply costs allocated to the Missouri jurisdiction 14 would be greater. As I show in Schedule LWL2010-13 to my rebuttal testimony, the unit 15 cost associated with fixed power supply costs following my recommendation is the same 16 for each jurisdiction. There is no difference, even though the unit fixed cost of a system 17 optimized to serve the higher load factor Missouri jurisdiction would be greater.
- Q: Is there a link between your recommended capacity allocation of off-system sales
 margins and the 4CP versus 12CP capacity cost allocator, as Mr. Featherstone
 suggests on Page 11, Line 21?
- A: No, contrary to Mr. Featherstone's belief, there is none. The issues are separate. My
 recommendation in Kansas was to allocate off-system sales margins using the capacity
 cost allocator used in Kansas to allocate fixed power supply costs. My recommendation

in Missouri is the same. The fact that because of the stipulation and agreement in Kansas
 I recommended use of a 12CP allocator to allocate power supply fixed costs and off system sales margins has nothing to do with the relative merits of allocating off-system
 sales margins based on capacity, energy, or unused energy.

5 Q: Beginning on Page 15, Line 19 of his rebuttal testimony, Mr. Featherstone states 6 that the unused energy allocation fails to consider that the better load factor 7 jurisdiction will have more opportunities to engage in off-system sales with its lower 8 than average system fuel costs, which results from a better utilization of the existing 9 fleet of generating units. Do you agree with his assessment?

10 A: No, I do not. Mr. Featherstone's claim is incorrect, as I will demonstrate later in my 11 testimony. I agree that, all other factors being equal, higher load factors generally result 12 in lower overall average fuel cost because of the better utilization of the existing fleet of 13 generating units. However, the suggestion that there will be more opportunities to 14 engage in off-system sales because of this lower than average fuel cost is nonsense, if for 15 no other reason than each additional kWh generated to serve native load customers 16 represents a kWh not available for sale off-system.

KCP&L sells energy off-system when it has capacity in excess of what is being used by native load customers. KCP&L makes off-system sales <u>only</u> when the out-ofpocket cost of generating energy (after native load obligations are met) <u>is less</u> than the price of energy on the open market. All other factors equal being, as native load increases (thus increasing load factor), lower cost generating resources are used first to satisfy this increased load.

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Q.

Will a system operating at a higher load factor have generating resources that operate at a lower cost, as Mr. Featherstone states on Page 15, Lines 19-22?

A: Generally, no. Mr. Featherstone offers no evidence beyond his unsupported assertion
that this is the case. Nor does he offer any reasoning that the electric generating system is
more efficiently utilized as load factor increases.

6 The unit cost of individual resources is generally unaffected by system load 7 factor. However, as I discuss in my Direct Testimony at pages 15 through 20, the mix of 8 resources will change. The system with the higher load factor will tend to have a 9 relatively larger proportion of higher capital cost, lower energy cost resources than a 10 system operating at a lower load factor. Mr. Featherstone would ignore the implications 11 of this higher capital cost generation required to support the higher load factor sales.

12 Q: Does Mr. Featherstone acknowledge this higher capital cost generation?

A: Yes, he does. Beginning on Page 6, Line 23, Mr. Featherstone states that "the design of
an electric system requires expensive base load generation, such [as] large coal-fired
generation, as well as less expensive but higher cost to operate peaking units."

Q: At Page 15, Line 19, Mr. Featherstone states "that the better load factor state,
Missouri, will have more opportunities to engage in off-system sales with its lower
than average system fuel costs, which results from a better utilization of the existing
fleet of generating units." Does the better load factor state have a lower than
average system fuel cost?

A: Yes, it does, all other factors being equal. However, in order for Missouri to realize
lower than average system fuel costs, some of the capability to generate energy for sale
off-system is used, thus reducing the ability to make off-system sales. The higher load

factor results in a lower average system fuel cost than a lower load factor operation. However, what Mr. Featherstone would ignore is that in order to realize this lower average system fuel cost, KCP&L must have generating resources with fixed costs higher than system wide fixed costs. These higher fixed cost resources generally are able to generate energy less expensively than lower capital cost resources. Mr. Featherstone ignores the higher capital costs.

Q: On Page 21, at Line 4, Mr. Featherstone states that he does not believe that KCP&L
is subsidizing Missouri customers, stating that from Staff's perspective Missouri is
using the proper allocation method. Do you agree?

A: Setting aside the question of whether KCP&L subsidizes Missouri customers because of
the different allocation methods, KCP&L is subsidizing retail customers. Whether the
retail customers are located in Missouri or Kansas is a different (and secondary) issue.
The use of two different allocation methods by Missouri and Kansas denies KCP&L an
opportunity to earn the rate of return allowed by the respective Commissions.

As I discuss in my Direct Testimony at page 35 through 40, I believe that neither the energy based allocation used in Missouri nor the unused energy based allocation used in Kansas is a reasonable basis to allocate off-system sales margin. In my opinion, under the current allocation methods KCP&L subsidizes retail customers in both Missouri and Kansas.

I will address the reasonableness of Staff's recommended energy allocation latter
in my surrebuttal testimony.

Q: Do you have any observation regarding Mr. Featherstone's rebuttal testimony on
 Page 21, Line 9 that this Commission changed its allocation approach "in the past in
 an effort to ameliorate" the "perceived problem" of different allocation methods?

A: Yes, I do. Based on my reading of Mr. Featherstone's rebuttal testimony, in 2006 this
Commission apparently shifted from a 1CP to a 4CP capacity allocation factor, which
reduced KCP&L's problem. This may well have represented an effort by the
Commission to ameliorate the problem of different allocation methods.

8 However, in response to Staff's proposal, the Commission changed from a 9 capacity based allocation of off-system sales margins to an energy allocation. This 10 change certainly did not ameliorate KCP&L's problem. This change contributed to and 11 exacerbated the problem.

KCP&L DIFFERENT ALLOCATION METHODS

Q: Mr. Featherstone states at Page 29, Line 17, that "Kansas has not made any movement regarding the jurisdictional allocation approach, but KCPL is asking, and expecting this Commission to make further moves to attain conformity between the jurisdictional allocation methods used in Kansas and Missouri." Are you proposing that this Commission make additional moves toward conformity in this case?

A: No, I am not. When Kansas adopted the unused energy allocator, it moved away from
 the capacity cost allocator that Missouri had relied on in the past. Kansas adopted a
 method that benefited Kansas customers. At the same time, Missouri adopted an energy
 allocator, which similarly moved away from the capacity cost allocator Missouri has

1		relied on in the past to a method that benefited Missouri customers. In this regard, both
2		Missouri and Kansas moved away from conformity.
3		In this case I am recommending the Commission adopt a superior approach to
4		allocating off-system sales margins. I am proposing that the Commission adopt the
5		capacity based approach that the Commission had previously endorsed before it adopted
6		a method that has exacerbated KCP&L's jurisdictional allocation problem.
7		
8		SYSTEM LOAD FACTORS
9	Q:	At Page 35, Line 12, Mr. Featherstone states that KCP&L's more diverse mix of
10		customers in Missouri allows it to more efficiently use its facilities, which in turn
11		results in lower overall costs. Do you agree?
12	A:	No. Overall costs are higher, not lower. However, power supply unit costs may be less.
13		All other factors being equal, an increase in load factor will result in higher unit variable
14		cost. However, if an increase in load factor requires an increase in the relative level of
15		lower variable cost (that is, higher fixed cost generation) to meet most economically the
16		needs of customers, lower unit variable cost will result. The higher fixed costs associated
17		with the additional base load generation required to minimize total cost will offset in part
18		this lower unit variable cost.
19		For example, using a simplified example, I find the per unit variable costs
20		associated with serving Missouri customers from a generation system optimized to serve
21		Missouri customers amounts to \$19.15 per MWH, whereas the unit variable cost
22		associated with serving Kansas customers from a generation system optimized to serve
23		Kansas customers amounts to \$20.84 per MWH. However, the fixed costs associated

1		with the system optimized to meet the higher load factor Missouri requirements amounts					
2		to about \$219 per kW, whereas the unit fixed cost associated with the system optimized					
3		to serve Kansas customers amounts to \$204 per kW. The total cost (variable plus fixed)					
4		of the system optimized to serve Missouri customers amounts to \$64 per MWH, whereas					
5		the total costs of the system optimized to serve Kansas customers amounts to \$69 per					
6		MWH.					
7	Q:	Have you prepared a schedule that shows your development of the above unit costs?					
8	A:	Yes, I have. I show in attached Schedule LWL2010-14 the example I relied on to					
9		develop these unit costs.					
10		In Schedule LWL2010-14, I have used information that I developed to support					
11		Schedules LWL2010-1 and LWL2010-3 to my Direct Testimony to show the relationship					
12		of the unit cost of the system optimized to serve the lower load factor Kansas jurisdiction					
13		versus the higher load factor Missouri jurisdiction.					
14	Q:	Please explain Schedule LWL2010-14.					
15	A:	In Schedule LWL2010-14 I develop the most economical generation mix to serve total					
16		native load, Kansas, and Missouri. On Lines 1 through 7, I show the unit costs I used in					
17		Schedule LWL2010-1 (Sheet 3). As I indicated in my direct testimony, these unit costs					
18		approximate KCP&L's cost levels.					
19		On Lines 8 through 13, I summarize the requirements for total native load,					
20		Kansas, and Missouri. I develop the requirements I show from the hourly load curves					
21		that I show graphically in Schedule LWL2010-3 (Sheet 1).					
22		On Lines 14 through 32, I show the generation mix required to meet most					
23		economically the requirements that I summarize on Lines 8 through 13. On Lines 37					

through 46, I show the annual cost based on applying the unit costs I show in Lines 1 through 7 to the load shown on Lines 18 through 32.

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I develop the optimum mix of base load and peaking resources by determining the level of base load capacity (Line 15) which results in the lowest overall cost (Line 46).

On Lines 47 through 51, I show unit costs of the systems optimized to serve 5 native load, Kansas, and Missouri. I show, as expected on Line 48, that the unit fixed 6 cost of the system optimized to serve the lower load factor jurisdiction (Kansas) is lower 7 than for the higher load factor jurisdiction (Missouri). In addition, as expected, I show on 8 Line 50 that the unit variable costs for the lower load factor jurisdiction (Kansas) exceed 9 10 the variable costs for the higher load factor jurisdiction (Missouri). On Line 51, I show 11 that based on this example, the average unit total cost of power supply for the lower load 12 factor jurisdiction exceeds that of the higher load factor jurisdiction. As expected, the average unit cost associated with the system optimized to serve total native load falls 13 14 between the cost of system optimized to serve Kansas and Missouri.

15 On Lines 52 through 55, I show the allocation of the fixed and variable costs of the system optimized to meet total native load using capacity and energy allocators. As I 16 show, the costs allocated in a manner similar to that recommended by Mr. Featherstone 17 and me differ from the level that would result from developing cost responsibility based 18 19 on the system optimized to meet each jurisdiction's requirements. In this regard, the 20 costs allocated to the lower load factor jurisdiction exceed that of the optimized system, 21 and the costs allocated to the higher load factor jurisdiction are less than that of the 22 optimized system. Thus, as shown in this example, the allocation approach

recommended by Mr. Featherstone and me tends to under-allocate costs to the high load factor jurisdiction (Missouri).

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3 Q: What do you show on Lines 33 through 36 of Schedule LWL2010-14?

A: On Lines 33 through 36, I compare the total capability of the base load resources with the
generation from the base load units to meet native, Kansas, and Missouri requirements
met from base load units. As I show, the optimum level of base load generation required
to meet the lower load factor jurisdiction (Kansas) requirements amounts to only about
43 percent of the optimum level to meet total native load (Line 15, 882 / 2037 = 43%).
However, nearly 50 percent of the base load capacity in excess of requirements to serve
native load is attributable to the lower load factor jurisdiction (Line 36).

Q: Does this suggest that off-system sales should be split equally between Missouri and Kansas?

A: Yes, it does, within the limitations of the example. However, the example I show in
Schedule LWL2010-14 is simplified and not intended to depict all of the factors needed if
it were used as a basis to allocate cost (or off-system sales margins).

16 Q: What conclusions do you reach based on examination of Schedule LWL2010-14?

A: While Mr. Featherstone is correct that Missouri's higher load factor results in lower
 overall costs, the allocation bases he and I recommend result in an under-allocation of
 cost to the higher load factor jurisdiction. Mr. Featherstone's proposed energy allocation
 of off-system sales margin exacerbates this under-allocation.

Q: Do the results you show in Schedule LWL2010-14 confirm Mr. Featherstone's suggestion at Page 15, Line 19 of his rebuttal testimony that the better load factor

2

state, with its lower average system fuel cost, will have more opportunities to engage in off-system sales?

No, it does not. It demonstrates that the unit cost (both fuel and total power supply) to 3 A: serve the higher load factor Missouri jurisdiction is lower. However, whether in absolute 4 5 terms it is higher or lower is irrelevant. The issue we are addressing is the allocation of 6 off-system sales margin. As I show on Lines 33 through 36 (as compared to Line 12), the availability of base load resources to generate energy for sale off-system is relatively less 7 for the higher load factor jurisdiction. This relationship indicates the allocation of off-8 system sales margin should result in a lower portion allocated to the higher load factor 9 jurisdiction than the amount that would be allocated using the energy allocator. I also 10 demonstrate that the capacity based allocator I propose tends to benefit Missouri 11 customers, not penalize them as suggested by Mr. Featherstone. 12

Of secondary concern is how the allocation of costs (other than off-system sales 13 14 margin) relates to the higher and lower costs. Based on the same example, I find that the allocation method recommended by Mr. Featherstone and me results in an amount 15 allocated to Kansas that exceeds the cost of the optimized system by about 1.36%, 16 whereas the amount allocated to Missouri is less than the cost of the optimized system to 17 serve Missouri customers by about 1.09%. Mr. Featherstone would exacerbate this "in-18 equity" by allocating a disproportionate share of the benefit of off-system sales to 19 20 Missouri.

Q: How do lower load factor customers benefit from the economies of serving higher load factor customers, as claimed by Mr. Featherstone on Page 37, Line 6 of his rebuttal testimony?

A: Generally, the service to the higher load factor jurisdiction results in lower overall system average unit (\$/kW) cost. However, in order for the lower load factor jurisdiction to realize any benefit, the allocation of cost must result in a lower average unit cost for service to lower load factor customers than if served from a system optimized to serve those lower load factor customers. As I show in Schedule LWL2010-14, Line 57, it does not.

Q: Do you agree with Mr. Featherstone's suggestion on Page 37, Lines 14-15, that the
benefit of Missouri's relatively higher load factor relates to how fuel and purchased
power costs are determined in a rate case?

10 A: No, I do not. How fuel costs are determined for rate case purposes is not relevant. The 11 use of models to develop fuel costs is in lieu of using some measure of actual fuel cost. 12 As I demonstrated above, unit fuel cost and total power supply cost are lower for an 13 optimized system serving a higher load factor jurisdiction than the optimized system 14 serving a lower load factor jurisdiction. I also demonstrate that the allocation basis 15 recommended by Mr. Featherstone and me tends to over allocate costs to the lower load 16 factor jurisdiction.

Q: Do you agree with Mr. Featherstone's assertion in his rebuttal testimony (Page 39,
Line 23) that because of its better load factor Missouri customers should have
greater opportunities to benefit from the interchange market because the average
cost to serve Missouri customers is less?

A: No, I do not. I demonstrate in Schedule LWL2010-14 that the unit power supply cost to
serve the Missouri jurisdiction is lower than to serve the Kansas jurisdiction.

However, I also demonstrate:

23

1 (1) The capacity and energy cost allocators that Mr. Featherstone and I 2 recommend result in shifting cost away from the Missouri jurisdiction. As a 3 result, costs allocated to the Missouri jurisdiction are less than the cost of the 4 power supply system optimized to serve Missouri customers.

(2) Assuming the optimum system to serve the Missouri and Kansas jurisdictions, 5 the availability of base load capacity (in excess of that used to meet native 6 load customer requirements) to generate energy to sell off-system is about the 7 same for the higher load factor Missouri jurisdiction as for the lower load 8 factor Kansas jurisdiction. Even though the Missouri jurisdiction would 9 contribute about 50 percent of total native load base load generation in excess 10 of base load requirements, the Missouri jurisdiction contributes about 57 11 percent of total energy requirements and 54 percent of total capacity 12 requirements. 13

The above demonstrates that an energy allocation of off-system sales margin as recommended by Staff inappropriately benefits the higher load factor Missouri customers. Based on the above, a capacity cost allocation of off-system sales margin, as I recommend, also benefits higher load factor Missouri customers but to a much lesser degree.

19 Q: Do you have any additional observations regarding the equity of allocating off20 system sales margins based on energy versus capacity?

A: Yes, I do. In my Direct Testimony at pages 35-42, I addressed the merits of allocating
off-system sales margin in proportion to the fixed costs of the power supply resources

used to generate energy sold off-system and the inequity of allocating off-system sales
 margins based on energy.

Mr. Featherstone argues that an energy allocation is appropriate because the 3 economies offered by the higher load factor Missouri jurisdiction enhance the ability of 4 the Company to sell energy off-system. I have demonstrated in Schedule LWL2010-14 5 (Line 35) that this is unlikely. To directly address the issue, I asked Burton Crawford, 6 7 KCP&L's Senior Manager of Energy Resources Management, to provide me with Company data showing the level of off-system sales and sales margin, which the 8 Company would make assuming that the system operated at the higher Missouri load 9 10 factor versus the lower Kansas load factor.

11 Q: Did Mr. Crawford provide such data to you?

12 A: Yes, he did. I summarize the results in Schedule LWL2010-15.

13 **O**:

Q: Please explain Schedule LWL2010-15?

In Schedule LWL2010-15, I show the level of off-system sales and sales margin 14 A: 15 predicted by the Company's economic dispatch model assuming load profiles (load 16 factor) corresponding to total native load, total Kansas load, and total Missouri load. As I show in Schedule LWL2010-15, based on the load shape of total native load, total off-17 system sales would amount to ** ** with associated variable cost of 18 ** Thus, assuming the total native load profile (load factor), total off-19 ** system sales margin amounts to ** 20 ** 21 However, based on the lower load factor Kansas load shape, total off-system sales

increase to ** _____** with an associated margin of ** _____** Based

1		on the higher load factor Missouri load shape, off-system sales would decline to only
2		** with an associated margin of **
3		Mr. Featherstone makes the illogical argument that the higher Missouri load
4		factor results in enhanced (increased) off-system sales margins. However, use of an
5		economic dispatch model demonstrates he is wrong. Off-system sales margins associated
6		with the lower Kansas load factor would be over 50 percent greater (**
7		** = 1.51) than KCP&L's system operating at the higher Missouri load
8		factor.
9	Q:	Does KCP&L make an adjustment in its rate filing to reflect the results of Missouri
10		operations having lower average system costs in its fuel and purchased power
11		model, as suggested by Mr. Featherstone at Page 39, Line 1, of his rebuttal
12		testimony?
13	A:	Only to the extent that Missouri operations are included with Kansas and FERC. Based
14		on my understanding of the models relied on, neither Staff nor the Company has adjusted
15		its costs or its allocations to reflect the lower fuel cost or the higher fixed cost associated
16		with service to the higher load factor Missouri jurisdiction.
17	Q:	Mr. Featherstone continues (Page 39, Line 13) that Missouri must share its savings
18		in lower fuel costs with other jurisdictions. Is this a fair characterization?
19	A:	Yes, provided it is also recognized that Kansas must share its savings in lower fixed
20		capital cost with the Missouri jurisdiction.
21		While I can develop an allocation that would more equitably share such savings,
22		(fuel and fixed cost), such an allocation would be extremely complex and subject to
23		numerous assumptions. With regard to the equity of such an allocation, I demonstrated in

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1		Schedule LWL2010-14 that the likely result would be to allocate additional cost to the					
2		Missouri jurisdiction relative to the traditional approach Staff and I recommend.					
3	Q:	Should the Missouri jurisdiction have "greater opportunities to benefit from the					
4		interchange market because" its average costs are lower than other jurisdictions, as					
5		suggested by Mr. Featherstone at Page 39, Line 21?					
6	A:	No. Mr. Featherstone bases his premise on the faulty assumption that due to Missouri's					
7		higher load factor, off-system sales are higher than if Missouri's load factor were less.					
8		As I have demonstrated in Schedule LWL2010-15, Mr. Featherstone is wrong. Because					
9		of Missouri's higher load factor, off-system sales (and margin) are less than if Missouri's					
10		load factor were less.					
11							
12		<u>SUMMARY</u>					
13	Q:	Please summarize you surrebuttal testimony?					
14	A:	I have demonstrated that Mr. Featherstone has provided no evidence to support his claim					
15		that because system average costs are less due to Missouri's higher load factor, the					
16		opportunities for off-system sales increase relative to the levels they would be if					
17							
		Missouri's load factor were less.					
18		Missouri's load factor were less. I have demonstrated that Mr. Featherstone is correct that Missouri's higher load					
18 19							
		I have demonstrated that Mr. Featherstone is correct that Missouri's higher load					
19		I have demonstrated that Mr. Featherstone is correct that Missouri's higher load factor results in lower system unit cost. However, contrary to Mr. Featherstone's					

Because of the additional sales due to its higher load factor, Missouri does not 1 contribute to increased off-system sales and margin, yet the energy allocation of off-2 system sales margin recommended by Mr. Featherstone benefits Missouri 3 disproportionately. Because this off-system sales margin represents a contribution to the 4 fixed costs associated with the generating units used to generate such off-system sales, 5 my recommendation to allocate off-system sales margin in proportion to the allocation of 6 the fixed power supply cost of the generating units used to generate energy sold off 7 8 system should be adopted by the Commission.

9 Q: Does that conclude your surrebuttal testimony?

10 A: Yes, it does.

BEFORE THE PUBLIC SERVICE COMMISSION OF THE STATE OF MISSOURI

In the Matter of the Application of Kansas City Power & Light Company to Modify Its Tariffs to) Continue the Implementation of Its Regulatory Plan)

Docket No. ER-2010-0355

AFFIDAVIT OF LARRY W. LOOS

STATE OF ARIZONA) ss **COUNTY OF PINAL**

Larry W. Loos, being first duly sworn, deposes and says that he is the witness who sponsors the accompanying testimony entitled, "Surrebuttal Testimony of Larry W. Loos"; that said testimony and schedules were prepared by him and/or under his direction and supervision; that if inquiries were made as to the facts in said testimony and schedules, he would respond as therein set forth; and that the aforesaid testimony and schedules are true and correct to the best of his knowledge.

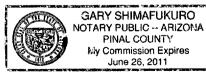
Marry W Loos

day of January, 2011.

Subscribed and sworn before me this

Dans Anglan otary Public

My commission expires: June 26,2011



Kansas City Power & Light Company Power Supply Cost - Optimum Resource Mix Kansas vs Missouri Load Shape - 2008

	[A]	[B]	[C]	[D]	[E]
Line No.	Description	Reference	Native Load	Kansas	Missouri
	· · ·				
1	Unit Cost				
2	Base Load Resources		000.00	000.00	000.00
3	Fixed - \$/kW	Schedule LWL2010-1, Sheet 3, Col B, Ln4	300.00	300.00	300.00
4	Variable - \$/kWh	Schedule LWL2010-1, Sheet 3, Col B, Ln5	0.01500	0.01500	0.01500
5	Peaking Load Resources	Cabadula I WI 2040 4 Chast 2 Cal C Lat	00.00	00.00	00.00
6	Fixed - \$/kW Variable - \$/kWh	Schedule LWL2010-1, Sheet 3, Col C, Ln4	90.00	90.00 0.12000	90.00
7	Variable - \$/KVVn	Schedule LWL2010-1, Sheet 3, Col C, Ln5	0.12000	0.12000	0.12000
8	Requirements				
9	Annual Peak Load - MW	See Note 1	3,495	1,620	1,875
10	Portion of Native Load	Ln9	100.00%	46.35%	53.65%
11	Annual Energy MWH	See Note 1	16,115,276	6,867,667	9,247,609
12	Portion of Native Load	Ln11	100.00%	42.62%	57.38%
13	Load Factor	Ln11 / 8784 / Ln9	52.49%	48.26%	56.15%
10			02.1070	10.2070	00.1070
14	Resources - MW				
15	Base Load Resources	See Note 2	2,037	882	1,155
16	Peaking Resources	Ln17 - Ln15	1,458	738	720
17	Peak Load/Capacity	Ln9	3,495	1,620	1.875
	· our zoud, oupdony	2.10	0,100	1,020	1,010
18	Load				
19	Load Less than Base Load Resour	rces			
20	Number of Hours	See Note 3	6,399	6,849	6,849
21	Energy - MWh	See Note 4	10,508,101	4,778,734	6,646,191
22	Average Load - MW	Ln21 / Ln20	1,642	698	970
23	Load Greater than Base Load Res		.,	000	0.0
24	Number of Hours	8784 - Ln20	2,385	1,935	1,935
25	Energy - MWh		2,000	1,000	1,000
26	Base Load Resources	Ln15 * Ln24	4,859,167	1,706,842	2,235,501
27	Peaking Resources	Ln11 - Ln21 - Ln26	748,008	382,091	365,917
28	Total Energy	Ln26 + Ln27	5,607,175	2,088,933	2,601,418
29	Recap Energy Generated - MWH		0,001,110	2,000,000	2,001,110
30	From Base Load Resources	Ln21 + Ln26	15,367,268	6,485,576	8,881,692
31	From Peaking Resources	Ln27	748,008	382,091	365,917
32	Total	Ln30 + Ln31	16,115,276	6,867,667	9,247,609
02	- otal	2100 1 2101	10,110,210	0,001,001	0,2,000
33	Base Load Resources				
34	Total Capability - MWH	8784 * LN15	17,896,404	7,748,269	10,148,136
35	Excess Capability	Ln34 - Ln30	2,529,136	1,262,693	1,266,444
36	Portion of Native Load	Ln35	100.00%	49.93%	50.07%
37	Total Annual Cost - \$				
38	Base Load Resources				
39	Fixed	Ln3 * Ln15 * 1,000	611,215,999	264,626,671	346,589,335
40	Variable	Ln4 * Ln30 * 1,000	230,509,023	97,283,640	133,225,383
41	Total	Ln39 + Ln40	841,725,021	361,910,311	479,814,718
42	Peaking Resources				
43	Fixed	Ln6 * Ln16 * 1,000	131,185,200	66,411,999	64,773,200
44	Variable	Ln7 * Ln31 * 1,000	89.760.937	45.850.917	43.910.015
45	Total	Ln43 + Ln44	220,946,138	112,262,915	108,683,215
46	Total Cost	Ln41 + Ln30	1,062,671,159	474,173,227	588,497,932
			.,,,	,,_,	,,
47	Per Unit Cost				
48	Fixed - \$/MW	(Ln39 + Ln43) / Ln9	212,418	204,345	219,393
49	Fixed - \$/MWh	(Ln39 + Ln43) / Ln11	46.07	48.20	44.48
50	Variable - \$/MWh	(Ln40 + Ln44) / Ln11	19.87	20.84	19.15
51	Total - \$/MWh	Ln46 / Ln11	65.94	69.04	63.64
•	· · · · · · · · · · · · · · · · · · ·				
52	Allocation of Total Native Load Cost	to Jurisdiction			
53	Fixed Cost - \$	Ln39 + Ln43 - Distributed on Ln10	742,401,199	344,117,294	398,283,905
54	Variable Cost - \$	Ln40 + Ln44 - Distributed on Ln12	320,269,960	136,485,868	183,784,092
55	Total Cost - \$	Ln53 + Ln54	1,062,671,159	480,603,162	582,067,997
56	Excess over Optimum		, . ,,	.,,	,,
57	Amount - \$	Ln55 - Ln46	-	6,429,935	(6,429,935)
58	Per Unit - \$/MWh	Ln57 / Ln11	-	0.94	(0,120,000)
	· •····				(0)

59

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Note 1: Developed from Workpapers Supporting Schedule LWL2010-3, Sheet 1 Note 2: Base Load Resource Requirement to Minimize Total Cost Note 3: Number of Hours Load is Less than LN15 - Developed from Workpapers Supporting Schedule LWL2010-3, Sheet 1 Note 4: Total Load When Load is Less than LN15 - Developed from Workpapers Supporting Schedule LWL2010-3, Sheet 1 61

SCHEDULE LWL2010-15

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