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Case No.: ER-2010-0355
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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**

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Has Been Removed.
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Pursuant To 4 CSR 240-2.135.

KCP&L Exhibit No. **KCP&L41 NP**
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File No. **ER-2010-0355**

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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**
11 **testimony?**

12 A: Yes, I have two. First, based on my reading of Mr. Featherstone's rebuttal testimony, I
13 note a decided effort to confuse the issue. The issue with respect to the allocation of off-
14 system sales margins is simple. Should the Missouri Commission adopt a capacity-based
15 allocation, as I recommend, or an energy based allocation, as recommended by Staff.
16 While Missouri and Kansas use different allocation basis to allocate capacity cost (4CP
17 vs 12CP), that fact should not be used to divert attention from the real issue as Mr.
18 Featherstone seems to attempt. The fact that Kansas relies on a 12CP capacity cost

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

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

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

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

12 **Q: At Page 1, Line 22, Mr. Featherstone characterizes your proposed allocation of off-**
13 **system sales margins as "uniquely different" from the manner parties and the**
14 **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.

1 allocation I recommend was embodied in KCP&L's rates from the early 1980s through
2 2006.

3 As Mr. Featherstone's Page 28 table indicates, my recommendation is neither
4 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?**

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

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

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

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

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

13
14 **JURISDICTIONAL ALLOCATION FAIRNESS**

15 **Q: Is KCP&L's under-recovery due to different allocations of off-system sales margins**
16 **largely caused by the Kansas Commission's continued use of the unused energy**
17 **allocator, as Mr. Featherstone alleges on Page 4, Line 8 of his rebuttal testimony?**

18 **A:** No. KCP&L's under-recovery is no more due to the Kansas Commission's use of the
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
21 KCP&L and Kansas, while the Kansas Staff wants to blame Missouri. The issue should
22 not be who is to blame. The issue should be how to eliminate the problem fairly and
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.

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

17 **A:** My response related solely to the implications of the allocation of off-system sales
18 margins. Although the 4 CP method is part of the Company's application, whether the
19 Kansas Commission uses a 12CP or 4CP basis does not relate to the method of allocating
20 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.

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

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

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

20

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."

1 OFF-SYSTEM SALES ALLOCATIONS

2 Q: Do you agree that your recommended use of a demand allocator to allocate off-
3 system sales margin is “non-traditional” and “inconsistent” as Mr. Featherstone
4 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
10 demand allocator is inconsistent completely misses the mark. He admits that the
11 Company makes off-system sales when it has “excess idle capacity.” However, the level
12 of “excess idle capacity” is, in part, a function of the level of sales because every kWh
13 sold to native load customers is a kWh that is not available to sell off system. Mr.
14 Featherstone and I both recommend allocating the fixed costs associated with that excess
15 capacity (as well as all other capacity) based on a capacity allocator. Since the
16 responsibility for the costs of this “excess idle capacity” is in proportion to each
17 jurisdiction’s capacity requirement, the benefit derived from its use to generate energy
18 sold off-system should likewise be distributed in proportion to each jurisdiction’s
19 capacity requirement.

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

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

3 Mr. Featherstone suggests at Page 7, Line 13, that "allocating the variable
4 components of off-system sales margins using the demand allocator is not consistent with
5 the way other fuel components are allocated." However, there are no variable
6 components of off-system sales margins. Off-system sales margin is what is left over
7 after the variable costs associated with generating energy sold off-system are eliminated
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.

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

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

1 \$10.81 million related to recovery of transmission costs incurred in delivering energy off-
2 system. As I show in Schedule LWL2010-5, I have credited these revenues to
3 transmission system costs to eliminate the costs related to transmission of energy off-
4 system 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 off-
13 system is simply another service the Company engages in, indicates that he doesn't
14 understand the difference between the public service obligation that the Company has to
15 serve native load customers and the sale of a commodity when energy is available and
16 market prices sufficient to off-set the cost of generating the energy sold. The Company
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.

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

1 **the off-system sales market was insignificant compared to today's level. Do you**
2 **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.

18 **Q: Is there a link between your recommended capacity allocation of off-system sales**
19 **margins and the 4CP versus 12CP capacity cost allocator, as Mr. Featherstone**
20 **suggests on Page 11, Line 21?**

21 A: No, contrary to Mr. Featherstone's belief, there is none. The issues are separate. My
22 recommendation in Kansas was to allocate off-system sales margins using the capacity
23 cost allocator used in Kansas to allocate fixed power supply costs. My recommendation

1 in Missouri is the same. The fact that because of the stipulation and agreement in Kansas
2 I recommended use of a 12CP allocator to allocate power supply fixed costs and off-
3 system sales margins has nothing to do with the relative merits of allocating off-system
4 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.

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

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

3 A: Generally, no. Mr. Featherstone offers no evidence beyond his unsupported assertion
4 that this is the case. Nor does he offer any reasoning that the electric generating system is
5 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?**

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

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

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

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

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

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

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

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

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

4 **A: Yes, I do. Based on my reading of Mr. Featherstone's rebuttal testimony, in 2006 this**
5 **Commission apparently shifted from a 1CP to a 4CP capacity allocation factor, which**
6 **reduced KCP&L's problem. This may well have represented an effort by the**
7 **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

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

18 **A: No, I am not. When Kansas adopted the unused energy allocator, it moved away from**
19 **the capacity cost allocator that Missouri had relied on in the past. Kansas adopted a**
20 **method that benefited Kansas customers. At the same time, Missouri adopted an energy**
21 **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

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

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

5 On Lines 47 through 51, I show unit costs of the systems optimized to serve
6 native load, Kansas, and Missouri. I show, as expected on Line 48, that the unit fixed
7 cost of the system optimized to serve the lower load factor jurisdiction (Kansas) is lower
8 than for the higher load factor jurisdiction (Missouri). In addition, as expected, I show on
9 Line 50 that the unit variable costs for the lower load factor jurisdiction (Kansas) exceed
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
13 average unit cost associated with the system optimized to serve total native load falls
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
16 the system optimized to meet total native load using capacity and energy allocators. As I
17 show, the costs allocated in a manner similar to that recommended by Mr. Featherstone
18 and me differ from the level that would result from developing cost responsibility based
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

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

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

4 A: On Lines 33 through 36, I compare the total capability of the base load resources with the
5 generation from the base load units to meet native, Kansas, and Missouri requirements
6 met from base load units. As I show, the optimum level of base load generation required
7 to meet the lower load factor jurisdiction (Kansas) requirements amounts to only about
8 43 percent of the optimum level to meet total native load (Line 15, $882 / 2037 = 43\%$).
9 However, nearly 50 percent of the base load capacity in excess of requirements to serve
10 native load is attributable to the lower load factor jurisdiction (Line 36).

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

13 A: Yes, it does, within the limitations of the example. However, the example I show in
14 Schedule LWL2010-14 is simplified and not intended to depict all of the factors needed if
15 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?**

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

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

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

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

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

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

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

7 **Q: Do you agree with Mr. Featherstone's suggestion on Page 37, Lines 14-15, that the**
8 **benefit of Missouri's relatively higher load factor relates to how fuel and purchased**
9 **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.

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

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

23 However, I also demonstrate:

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.

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

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

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

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

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

3 Mr. Featherstone argues that an energy allocation is appropriate because the
4 economies offered by the higher load factor Missouri jurisdiction enhance the ability of
5 the Company to sell energy off-system. I have demonstrated in Schedule LWL2010-14
6 (Line 35) that this is unlikely. To directly address the issue, I asked Burton Crawford,
7 KCP&L's Senior Manager of Energy Resources Management, to provide me with
8 Company data showing the level of off-system sales and sales margin, which the
9 Company would make assuming that the system operated at the higher Missouri load
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 **Q: Please explain Schedule LWL2010-15?**

14 A: In Schedule LWL2010-15, I show the level of off-system sales and sales margin
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
17 show in Schedule LWL2010-15, based on the load shape of total native load, total off-
18 system sales would amount to **** [REDACTED] **** with associated variable cost of
19 **** [REDACTED] **** Thus, assuming the total native load profile (load factor), total off-
20 system sales margin amounts to **** [REDACTED] ****

21 However, based on the lower load factor Kansas load shape, total off-system sales
22 increase to **** [REDACTED] **** with an associated margin of **** [REDACTED] **** Based

1 on the higher load factor Missouri load shape, off-system sales would decline to only
2 **** [REDACTED] **** with an associated margin of **** [REDACTED] ****

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 (**** [REDACTED]**
7 **[REDACTED] ** = 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

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

SUMMARY

13 **Q: Please summarize your 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 I have demonstrated that Mr. Featherstone is correct that Missouri’s higher load
19 factor results in lower system unit cost. However, contrary to Mr. Featherstone’s
20 unsupported conclusion, I have also demonstrated that this lower average system cost
21 does not result in increased off-system sales and sales margin. In fact, I have
22 demonstrated the opposite.

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

9 **Q: Does that conclude your surrebuttal testimony?**

10 **A: Yes, it does.**

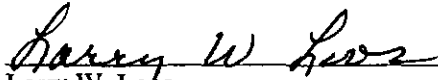
BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of the Application of Kansas City)
Power & Light Company to Modify Its Tariffs to) Docket No. ER-2010-0355
Continue the Implementation of Its Regulatory Plan)

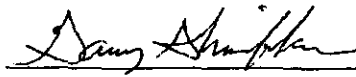
AFFIDAVIT OF LARRY W. LOOS

STATE OF ARIZONA)
) ss
COUNTY OF PINAL)

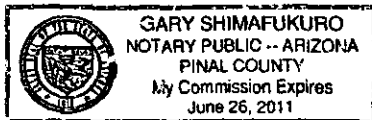
Larry W. Loos, being first duly sworn, deposes and says that he is the witness who sponsors the accompanying testimony entitled, "Surrebuttal Testimony of Larry W. Loos"; that said testimony and schedules were prepared by him and/or under his direction and supervision; that if inquiries were made as 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.


Larry W. Loos

Subscribed and sworn before me this 3rd day of January, 2011.


Notary Public

My commission expires: June 26, 2011



Line No.	(A) Description	(B) Reference	(C) Native Load	(D) Kansas	(E) Missouri
1	Unit Cost				
2	Base Load Resources				
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				
6	Fixed - \$/kW	Schedule LWL2010-1, Sheet 3, Col C, Ln4	90.00	90.00	90.00
7	Variable - \$/kWh	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%	53.85%
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%
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
18	Load				
19	Load Less than Base Load Resources				
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 Resources				
24	Number of Hours	8784 - Ln20	2,385	1,935	1,935
25	Energy - MWh				
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				
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
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	1,268,444
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	(0.70)
59	Note 1: Developed from Workpapers Supporting Schedule LWL2010-3, Sheet 1				
60	Note 2: Base Load Resource Requirement to Minimize Total Cost				
61	Note 3: Number of Hours Load is Less than LN15 - Developed from Workpapers Supporting Schedule LWL2010-3, Sheet 1				
62	Note 4: Total Load When Load is Less than LN15 - Developed from Workpapers Supporting Schedule LWL2010-3, Sheet 1				

SCHEDULE LWL2010-15

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