

Exhibit No.:

Issues: Interchange Sales
Jurisdictional
Allocations

Witness: James R. Dittmer

Type of Exhibit: Rebuttal Testimony

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Case No.: ER-2006-314

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MISSOURI PUBLIC SERVICE COMMISSION

CASE NO. ER-2006-0314

PUBLIC VERSION

REBUTTAL TESTIMONY

OF

JAMES R. DITTMER

ON BEHALF OF

**THE DEPARTMENT OF ENERGY – NATIONAL
NUCLEAR SECURITY ADMINISTRATION**

**Kansas City, Missouri
September 2006**

 Designates that “Highly Confidential” or “Proprietary” information has been removed pursuant to the Standard Protective Order

1 A. Kansas City Power and Light Company (“KCPL” or “Company”), through witness
2 Mr. Don Frerking, is proposing to allocate off-system sales margins between the
3 Missouri retail, Kansas retail and wholesale jurisdictions employing a new allocation
4 methodology that KCPL refers to as the “unused energy allocator.” The purpose of
5 this testimony is to rebut Company’s use of the “unused energy allocator” to allocate
6 non-firm off-system sales margins, rather than employ the “energy with losses”
7 allocator that has been traditionally used for allocating this cost of service revenue
8 credit between jurisdictions.

9

10 **Q. PLEASE EXPLAIN KCPL’S DEVELOPMENT OF, AND RATIONALE FOR**
11 **UTILIZING, THE “UNUSED ENERGY ALLOCATOR” TO ALLOCATE**
12 **OFF-SYSTEMS SALES MARGIN REVENUE CREDITS AMONG**
13 **JURISDICTIONS.**

14 A. The unused energy allocator is developed by KCPL for each jurisdiction (Missouri,
15 Kansas, and FERC) in the following manner:

16 Average of 12 Coincident MW Demands
17 for the Jurisdiction (whether it is Missouri, Kansas or FERC)

18
19 Times Total Hours in a Year (8,760)

20
21 Equals – Subtotal “Available Energy” for each Jurisdiction.

22

23 Less: Actual Energy Served to Each Jurisdiction for the Year (Sales plus Line
24 Losses For Each Jurisdiction)

25

26 Equals – “Unused Energy” for Each Jurisdiction

27

28 This calculation is made for each jurisdiction – Kansas, Missouri and FERC.

1 Using this algorithm, each jurisdiction’s “unused energy allocator” is then developed
2 by dividing its calculated “unused energy” by the total company amount of “unused
3 energy.” KCPL’s development of its “unused energy allocator” is shown on the top
4 half of attached Schedule JRD-1. The rationale given for use of this factor to allocate
5 off-system sales margins stated within Company workpapers is as follows:

6 The allocation of the margins is dependent on and must be consistent
7 with how the total generation costs are being allocated to the
8 jurisdictions (Demand and Energy Allocator). Through the Demand
9 allocator the jurisdictions have essentially paid for the “rights” to a
10 certain level of MWH output. This “Available Energy” is calculated
11 by multiplying the average CP load by 8760 (the hours in a year). The
12 “Unused Energy” is calculated by subtracting a jurisdiction’s actual
13 “Energy Used” from its “Available Energy”. The “Unused Energy” is
14 essentially a measure of the portion of the fixed costs that the
15 jurisdictions have paid for but not used, and is also a measure of the
16 energy available to make off-system energy sales. (Company
17 workpaper “Unused Energy Allocator.xls”)
18

19 **Q. DO YOU ACCEPT KCPL’S REASONING FOR THE USE OF THE UNUSED**
20 **ENERGY ALLOCATOR TO ALLOCATE NON-FIRM OFF-SYSTEM SALES**
21 **MARGINS BETWEEN JURISDICTIONS?**

22 A. No.
23

24 **Q. WHY DO YOU NOT ACCEPT KCPL’S REASONING?**

25 A. There are several reasons for rejection of the unused energy allocator, including:

- 26 • KCPL’s methodology attempts an assessment of production facility
27 usage by jurisdiction in order to purportedly credit each jurisdiction

1 for their “under utilization” of such assets. Unfortunately, there is
2 no corresponding refinement in the allocation of system energy
3 generation expenses, which would be required using KCPL’s
4 methodology. Under KCPL’s approach, the lower load factor
5 jurisdictions will be allocated proportionately more off-system sales
6 margins in consideration of the proportionally higher number of
7 hours out of the year they are not fully utilizing the production
8 facilities that they are paying for through allocation of fixed
9 production costs on a 12 CP basis. However, the KCPL
10 methodology completely and unfairly ignores the higher energy
11 costs that the lower load factor jurisdictions impose on the system
12 when their “peak loads” cause more generation from higher cost
13 natural gas units.

- 14 • KCPL’s methodology is overly simplistic and is built upon a key
15 implicit assumption that does not square with reality.
- 16 • KCPL’s methodology “rewards” low load factor jurisdictions with
17 larger off system sales credit allocations and “punishes” the higher
18 load factor jurisdictions.
- 19 • KCPL’s methodology is inconsistent with previous allocation
20 treatment approved by the Missouri Public Service Commission,
21 and to my knowledge, every other jurisdiction.

1 Q. REFERRING TO YOUR FIRST ARGUMENT, PLEASE EXPAND UPON
2 THE INEQUITY OF ALLOCATING NON-FIRM OFF-SYSTEM SALES
3 MARGINS UTILIZING THE “UNUSED ENERGY ALLOCATOR” IN LIGHT
4 OF THE FACT THAT LOW LOAD FACTOR CUSTOMERS CAUSE
5 HIGHER FUEL COSTS TO BE INCURRED ON THE SYSTEM.

6 A. To understand this issue one must remember some of the fundamentals of generation
7 portfolio design and operations. The goal in designing and operating a utility system
8 is to meet utility customers’ collective energy requirements efficiently at the lowest
9 cost possible. The design of an efficient, low cost system must consider the load
10 profile of its customers. Further, and importantly, it must be remembered that utility
11 planners and operator face a trade off: customer demands can be met by adding base
12 load units with high fixed costs but low variable costs *or* by adding
13 intermediate/peaking units that have relatively low fixed costs but high variable costs.
14 Generally, if a base load unit – with its high fixed costs (i.e., return, taxes and
15 depreciation) – is run at a high capacity factor, its total cost of production that
16 includes fixed plus variable costs will be less than what the costs would be if
17 produced by a peaking unit. Conversely, a utility whose customers’ demands result
18 in a relatively low load factor, can meet such load more economically by employing
19 more peaking units. Even though the variable cost (i.e, fuel and a small element of
20 non-fuel operations and maintenance expense) of generating with a peaking unit is
21 high relative to generation from a base load unit, total production costs – which
22 considers fixed plus variable costs – will be lowered for low load factor systems by
23 generating proportionately higher amounts with peaking capacity.

1 Another fundamental that must be remembered when evaluating this issue is that the
2 *average* fuel cost per kWh generated on a system rises as the utility is required to
3 generate more with peaking units that are most often fired with high cost natural gas.
4 Low load factor customers cause relatively higher demands on peak, thus raising the
5 *system average* energy cost as ever higher percentages of required generation are met
6 with natural gas.

7
8 KCPL, like other utilities I have reviewed, allocates fuel and variable purchased
9 power expense incurred in serving native load between jurisdictions by utilizing an
10 energy allocator developed by considering each jurisdictions' annual energy
11 requirements (i.e., jurisdictional sales plus losses). In other words, each jurisdiction
12 is allocated fuel and variable purchased power expense such that each jurisdiction
13 pays exactly the same amount of fuel and variable purchased power expense on a per-
14 kilowatt-hour basis. In actuality, the low load factor customers are creating
15 proportionately higher fuel/variable purchased power expense to be incurred
16 inasmuch as peak loads are met by generating with high cost natural gas. However,
17 no attempt has been made by KCPL to refine the fuel/variable purchased power
18 expense allocation process to more equitably allocate costs by jurisdiction to reflect
19 the higher running costs that the low load factor jurisdiction imposes on the system.

20
21 Returning to the issue of allocating off-system sales margins with use of the unused
22 energy allocator, KCPL argues that it is equitable to quantify and consider the hours
23 of the year that each jurisdiction is *not using* the generation facilities for which it is

1 paying. In my opinion, it would be unfair and inequitable to adopt such a
2 methodology that heavily favors low load factor jurisdictions, without concurrently
3 adopting a more refined allocation process that would also appropriately assign more
4 of the higher fuel costs being imposed on the system by the low load factor
5 jurisdictions *to* the lower load factor jurisdictions.

6
7 **Q. PLEASE EXPAND UPON YOUR SECOND ARGUMENT THAT KCPL'S**
8 **METHODOLOGY IS OVERLY SIMPLISTIC AND IMPLICITLY INCLUDES**
9 **A KEY ASSUMPTION THAT DOES NOT SQUARE WITH REALITY.**

10 A. KCPL's methodology argues that, to the extent a jurisdiction is not using capacity
11 that it is paying for vis-à-vis the allocation of capacity costs on a demand basis, that it
12 entitled to margins from off-system sales being made from capacity it has "paid for"
13 but which it is not utilizing. As described above, the "unused energy allocator" is
14 predicated upon a calculation that develops the theoretical maximum amount of
15 interchanges sales that could be made when jurisdictions are not fully utilizing the
16 capacity for which they are being charged. Implicit in such methodology is an
17 assumption that virtually all "unused" MWHs that become the basis for the "unused
18 energy allocator" would have been "used" to make additional off-system sales.
19 Within its original filing KCPL calculated total company "unused energy" in the
20 amount of 7,205,409 MWHs.

21
22 This very key assumption that all calculated "unused energy" is being sold is simply
23 incorrect. Specifically, in each year, there are many hours when KCPL does not make

1 interchange sales from a number of units that are not being “used” to make retail
2 sales. Because the market price for interchange sales is below the variable running
3 cost for many units, no interchange sales are made from KCPL’s relatively high cost
4 units even though such units are clearly available to make additional interchange sales
5 (and used within the development of the “unused energy allocator”). In fact, during
6 calendar year 2005, KCPL had non-firm interchange sales of only ** [REDACTED] **
7 MWHs. Clearly, many of the calculated “unused” MWHs (as discussed above –
8 7,205,409) are not being sold on the non-firm interchange market. KCPL’s “unused
9 energy allocator” fails to recognize that, just because a jurisdiction is not “using” all
10 the energy it is “paying for,” does not mean that KCPL will have a market in which to
11 sell such “unused energy.”

12
13 It cannot be overemphasized that employment of this erroneous assumption that is
14 implicit within the development of KCPL’s “unused energy allocator” invalidates its
15 adoption. Jurisdictions should not be given “credit” for unused energy when clearly
16 significant amounts of so called “available” energy are not being sold because market
17 conditions do not permit.

18
19 **Q. PLEASE ELABORATE ON YOUR THIRD ARGUMENT THAT KCPL’S**
20 **ALLOCATION METHODOLOGY REWARDS LOW LOAD FACTOR**
21 **JURISDICTIONS WHILE PUNISHING HIGH LOAD FACTOR**
22 **CUSTOMERS.**

1 A. This specific outcome is fairly obvious. KCPL has allocated production demand
2 costs by use of a 12 CP allocator. The Missouri jurisdictional 12 CP allocation factor
3 is 53.82%. With its higher load factor, the Missouri jurisdiction's energy allocator is
4 57.12%. However, the "unused energy allocator" proposed by KCPL to allocate off-
5 system sales margins is only 46.97%. Conversely, Kansas – with its relatively low
6 load factor – has a demand allocator of 45.30% and an energy allocator of 41.96%.
7 However, under KCPL's proposed allocation procedure, the Kansas retail jurisdiction
8 would receive 52.25% of non-firm off-system sales margins. Clearly, Missouri –
9 with its higher load factor – is being punished, while Kansas – with its lower load
10 factor – is being rewarded.

11
12 Such outcome is clearly inconsistent with production system cost causation. As
13 discussed previously, in general, utility costs are lowered when base load generation
14 is added rather than peaking units *so long as the system has a relatively high load*
15 *factor* that allows such high fixed costs to be spread over a greater number of sales
16 units. If this were not the case, KCPL would not be engaging upon its plan to
17 construct the second Iatan Generating Unit. KCPL's employment of the "unused
18 energy allocator" for assigning off-system sales margins to jurisdictions effectively
19 assigns higher production costs to the low load factor jurisdiction while assigning
20 lower production costs to the high load factor jurisdiction. Such outcome is unfair and
21 inconsistent with cost causation principles employed in developing equitable
22 allocation methodologies.

1 Q. YOU ALSO STATE THAT KCPL'S METHODOLOGY IS INCONSISTENT
2 WITH PAST MISSOURI PUBLIC SERVICE COMMISSION PRECEDENT.
3 WHAT IS THE BASIS FOR SUCH STATEMENT?

4 A. KCPL's last litigated rate case occurred in 1985. I have not been able to confirm
5 whether the Company filed for, and this Commission approved, the allocation of off-
6 system sales using an energy allocator. However, for all recent years except 2005,
7 when preparing its earning surveillance report filed each spring with the MPSC, the
8 Company has allocated non-firm off-system sales utilizing the traditional energy
9 allocator.

10

11 For its calendar year 2005 surveillance report KCPL did, for the first time, employ the
12 "unused energy allocator" to allocate off-system sales margins. However, the 2005
13 surveillance report was filed after KCPL made its current Missouri and Kansas retail
14 rate applications. It is my understanding that the KCPL surveillance reports were to
15 be prepared utilizing procedures, precedents and methodologies adopted by the
16 MPSC in previous KCPL rate proceedings. Also, my recollection from involvement
17 in other Missouri electric rate reviews, is that Missouri utilities typically allocate non-
18 firm off-system sales margins on an energy basis – and that such methodology is
19 routinely adopted by this Commission.

20

21 In recent years I have observed regulatory jurisdictions that have encouraged through
22 rate design and other measures the shaving of energy consumption at the time of
23 system peak usage and/or the shifting of energy consumption so as to achieve a

1 higher system load factor. KCPL’s jurisdictional methodology, and for that matter –
2 class cost of service methodology, for allocating off-systems sales margins has the
3 impact of effectively rewarding low load factor consumption and thus encouraging
4 peak usage consumption rather than off-peak energy consumption. It would be
5 contrary, and indeed ironic, to adopt KCPL’s allocation methodology which rewards
6 low load factor consumption at a time when other regulatory jurisdictions are
7 attempting to encourage higher load factors and lower growth in peak demands.

8
9 **Q. HOW DO OTHER JURISDICTIONS ALLOCATE OFF-SYSTEM SALES**
10 **MARGINS BETWEEN JURISDICTIONS?**

11 A. In my experience, off-system sales margins have generally been allocated on an
12 energy basis. Notably, in at least in two Kansas retail cases that I have reviewed,
13 Kansas electric utilities have allocated off-system sales margins on an energy basis –
14 and, at least within the two cases that I reviewed, such methodologies were adopted
15 by the Kansas Corporation Commission without exception. Further, the Federal
16 Energy Regulatory Commission routinely endorses the allocation of interchange sales
17 margins on an energy basis.

18
19 **Q. DID KCPL FILE ITS KANSAS RETAIL APPLICATION EMPLOYING THE**
20 **SAME “UNUSED ENERGY” ALLOCATION METHODOLOGY FOR OFF-**
21 **SYSTEM SALES?**

1 A. Yes. It will not be surprising if the KCC “adopts” this methodology that is very
2 favorable to KCPL’s Kansas jurisdictional customer. That said, it has been my
3 experience that the KCC has not previously endorsed this methodology.
4

5 **Q. HAVE YOU EVER OBSERVED A UTILITY COMPANY REQUESTING, OR**
6 **A FEDERAL OR STATE REGULATORY COMMISSION ADOPTING, USE**
7 **OF AN “UNUSED ENERGY ALLOCATOR” TO ALLOCATE**
8 **INTERCHANGE SALES MARGINS?**

9 A. No. That is not to say it has never before been proposed – or adopted. But at least in
10 my experience, having undertaken reviews of utility rate applications in several
11 jurisdictions, I certainly do not believe it to be commonly proposed – or adopted.
12

13 **Q. HAS KCPL PROVIDED ANY PRECEDENT FOR ITS NEW ALLOCATION**
14 **METHODOLOGY?**

15 A. No. To the contrary, KCPL has provided *no support* from any other regulatory
16 bodies for the allocation methodology that it is proposing for the first time in this
17 Missouri case and the concurrently filed Kansas retail case. Specifically, in MPSC
18 Staff Data Request No. 0502, part (4) KCPL was requested to “[i]dentify any rate
19 orders in any other jurisdiction where KCPL’s method for allocating Non Firm
20 Interchange Sales Margin has been adopted.”

21 A. KCPL’s response to this request did not provide any case support for its
22 methodology. The Company’s complete response to this request was as follows:

1 The Company did not do any exhaustive research on the allocation methodologies
2 approved in other jurisdictions, which relate specifically to the margin on non-firm
3 energy sales. Many companies do not report the margin component of non-firm
4 energy sales. Many jurisdictions [SIC] allocations methodologies were developed at
5 a time when non-firm energy sales were not priced at market but rather at cost plus a
6 small margin.

7 It is unclear why KCPL added considerable non-responsive narrative to a very
8 specific question that simply was seeking regulatory authority for a new methodology
9 that it had never before sought. But to be clear on this point, even KCPL cannot
10 provide even one jurisdiction approving its new methodology.

11
12 **Q. IS THIS A SIGNIFICANT ISSUE TO MISSOURI JURISDICTIONAL**
13 **CUSTOMERS?**

14 A. Yes. The exact value of the issue is dependent upon the “total company” value
15 considered within cost of service development. DOE, the Office of the Public
16 Counsel (“OPC”), Praxair, Inc./Missouri Industrial Energy Consumers (“MIEC”) as
17 well as the MPSC Staff have all taken significant exception to the “total company”
18 level of off-system sales margins being proposed by KCPL in the instant case. While
19 the MPSC Staff has indicated that it would revisit the appropriate level of off-system
20 sales margins later in the proceeding, I believe DOE, OPC and MIEC are basically
21 recommending the same normalized “total company” off-system sales level at this
22 point in time. On attached Schedule JRD-1 I reflect the value of this allocation issue
23 at the “Company proposed” as well as the “DOE/OPC/MIEC proposed” level of total

1 company off-system sales margins. As reflected on the schedule, the value of this
2 allocation issue is significant -- even at KCPL's lower proposed level of total
3 company off-system sales margins.

4
5 **Q. HAVE YOU REVIEWED THE DIRECT TESTIMONY OF STEVE M.**
6 **TRAXLER FILED IN THIS CASE ADDRESSING OFF-SYSTEM SALES**
7 **BEGINNING AT PAGE 23 OF HIS TESTIMONY?**

8 A: Yes.

9
10 **Q. DID MR. TRAXLER ADDRESS THE RATE TREATMENT OF OFF-SYSTEM**
11 **SALES?**

12 A: Yes. Mr. Traxler discussed at length the agreement of KCPL in its Experimental
13 Regulatory Plan that off-system energy and capacity sales revenues would continue to
14 be treated "above the line" for ratemaking purposes.

15
16 **Q. DO YOU CONCUR WITH MR. TRAXLER'S POSITION THAT KCPL**
17 **AGREED TO THIS RATEMAKING TREATMENT?**

18 A: Yes I do. As Mr. Traxler discussed, this was an issue that was addressed in great
19 detail in the Experimental Regulatory Plan and by the Commission Order on the Plan.

20
21 **Q. DID YOU REVIEW THE DIRECT TESTIMONY OF THE OFFICE OF**
22 **PUBLIC COUNSEL WITNESS RALPH C. SMITH FILED IN THIS CASE?**

23 A: Yes I did.

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Q. DID MR. SMITH ADDRESS THE TREATMENT OF OFF-SYSTEM SALES?

A: Yes he did, at page 6 of his testimony.

Q. DID MR. SMITH OFFER AN ALTERNATIVE METHOD FOR THE RATEMAKING TREATMENT OF OFF-SYSTEM SALES?

A: Yes, at page 10 of his testimony Mr. Smith stated:

Off-system sales and the resultant margin are a material component of KCPL's earnings and can be volatile. Consequently, because of this and to address some, if not all, of the concerns expressed by KCPL and to help assure that the actual margins realized by KCPL on off-system sales continue to be treated above the line for ratemaking purposes, OPC is willing to consider an alternative mechanism by which KCPL would establish a regulatory liability (or asset) account, and would record its actual achieved off-system sales margin during the rate effective period in excess of (or below) the ** [REDACTED] ** in such account.

For example, if in 2007, KCPL realized off-system sales margin of ** [REDACTED] **, the Missouri jurisdictional portion of the difference between the realized amount and the ** [REDACTED] ** that was recognized above the line for ratemaking purposes in this proceeding would be recorded by KCPL in Account 254, Regulatory Liability.

Q. DO YOU AGREE WITH MR. SMITH'S METHODOLOGY?

A. I agree that there are different methodologies available to the Commission for effectuating KCPL's commitment that all revenues from off-system sales would be treated "above the line" for ratemaking purposes. For reasons stated within my direct

1 testimony, I do not believe that KCPL's proposal to date complies with commitments
2 it made when agreeing to the Experimental Regulatory Plan. If KCPL offers an
3 alternative treatment for dealing with the volatility of off-system sales margins within
4 rebuttal testimony that properly credits ratepayers with 100% of off-systems sales
5 there may yet be room for compromise on this issue. Any alternative suggested
6 within KCPL's rebuttal testimony can be addressed within surrebuttal testimony or
7 briefs as applicable or appropriate.

8

9 **Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?**

10 A. Yes, it does.

**Reconciliation of KCPL and DOE's Recommendations
Regarding Interchange Sales Margins
Reflects Impact of Allocation Issue at KCPL's and DOE's
Recommended Total Company Margin Level
Case No. ER-2006-0314**

Line No.	Description (a)	Reference (b)	Total Companh (c)	Missouri (d)	Kansas (e)	Wholesale (f)
<u>Development of Allocators:</u>						
1	Production - kW		2,633.1	1,411.5	1,198.4	23.2
2	Production - %		100.00%	53.60%	45.51%	0.88%
3						
4						
5	Annual Hours		8,760	8,760	8,760	8,760
6						
7	Total Energy - mWh	Ln 1 x Ln 5	23,065,956	12,364,302	10,498,057	203,597
8						
9	Energy With Losses - mWh		15,860,547	9,036,747	6,679,513	144,287
10	Energy With Losses - %		100.00%	56.98%	42.11%	0.91%
11						
12	Unused Energy - mWh	Ln 7 - Ln 9	7,205,409	3,327,555	3,818,544	59,310
13	Unused Energy - \$		100.00%	46.18%	53.00%	0.82%
14						
15						
16						
17	<u>Value of Allocation Issue Utilizing KCPL's Proposed</u>					
18	<u>Level of Total Company Off-System Sales Margins</u>					
19		Line 13 X Line				
20	Energy - Profit on Sales (KCPL's Unused Energy)	20, Col. D **				**
21						
22		Line 10 X Line				
23	Energy - Profit on Sales (Energy With Losses)	20, Col. D **				**
24						
25	Difference - Value of Allocation Issue Utilizing					
26	KCPL's Proposed Total Company Off-System					
27	Sales Normalized Margin Level	Ln 23 - Ln 20 *				**
28						
29	<u>Value of Allocation Issue Utilizing DOE's Proposed</u>					
30	<u>Level of Total Company Off-System Sales Margins</u>					
31		Line 13 X Line				
32	Energy - Profit on Sales (KCPL's Unused Energy)	31, Col. D **				**
33						
34		Line 10 X Line				
35	Energy - Profit on Sales (Energy With Losses)	31, Col. D **				**
36						
37	Difference - Value of Allocation Issue Utilizing					
38	DOE's Proposed Total Company Off-System					
39	Sales Normalized Margin Level	Ln 35 - Ln 32 *				**
40						
41	Total Impact on Missouri Rev Requirement					
42	of DOE-NSSA Margin Adjustment	Ln 20- Ln 35		<u>\$ (25,080,865)</u>		