

EXHIBIT

Exhibit No.:

KCPL 405

Issue(s):

Cost of Service/
Rate Design

Witness/Type of Exhibit:

Meisenheimer/Rebuttal

Sponsoring Party:

Public Counsel

Case No.:

ER-2010-0355

REBUTTAL TESTIMONY

OF

BARBARA A. MEISENHEIMER

Submitted on Behalf of the Office of the Public Counsel

Kansas City Power & Light

Class Cost of Service and Rate Design

CASE NO. ER-2010-0355

December 10, 2010

DPC Exhibit No. KCPL 405
Date 2/4/11 Reporter LMB
File No. ER 2010-0355

REBUTTAL TESTIMONY
OF
BARBARA A. MEISENHEIMER
KANSAS CITY POWER & LIGHT
(CLASS COST OF SERVICE AND RATE DESIGN)
CASE NO. ER-2010-0355

1 **Q. PLEASE STATE YOUR NAME, TITLE, AND BUSINESS ADDRESS.**

2 A. Barbara A. Meisenheimer, Chief Utility Economist, Office of the Public Counsel, P. O.
3 2230, Jefferson City, Missouri 65102.

4 **Q. HAVE YOU TESTIFIED PREVIOUSLY IN THIS CASE?**

5 A. Yes, I filed testimony with the Missouri Public Service Commission. (PSC or Commission)
6 regarding class cost of service and rate design issues on November 24, 2010. I also filed
7 rebuttal testimony on revenue requirement on December 8, 2010.

8 **Q. IN PREPARING YOUR TESTIMONY, WHAT MATERIAL DID YOU REVIEW?**

9 A. I have reviewed the direct rate design testimony and Class Cost of Service Report filed on
10 behalf of the PSC Staff and the direct testimony filed on behalf of the Missouri Industrial
11 Energy Consumers (MIEC).

12 **Q. DO YOU AGREE WITH MIEC WITNESS MAURICE BRUBAKER'S DERIVATION OF AN AVERAGE**
13 **AND EXCESS PRODUCTION COST ALLOCATOR?**

1 A. No. Mr. Brubaker's method of selecting non-coincident peak (NCP) demands for use in his
2 Average and Excess (A&E) production allocators is incorrect. On page 49 of the 1992
3 NARUC Electric Cost Allocation Manual (NARUC Manual) it states that the required data
4 for the A&E method "are the annual maximum and average demands for each customer
5 class and the system load factor." NCPs are used to represent the annual maximum demand
6 for each class. However, Mr. Brubaker limits his selection of NCPs used in his 4 NCP
7 A&E allocator to the summer months of June through September and limits his selection of
8 NCPs for his 2 NCP A&E allocator to the summer months of June disproportionately. His
9 NCP selection ignores actual KCP&L data demonstrating that for many rate schedules the
10 customers' annual maximum demands occur outside of the limited periods that Mr.
11 Brubaker considers. As a result, the Excess component of his A&E allocators distorts the
12 allocation of costs to customer classes; over allocating costs to customer classes that use
13 disproportionately more electricity in the months that Mr. Brubaker selected and under
14 allocating costs to customer classes that use disproportionately more electricity at other
15 times of the year. Schedule BAM RD REB-1 and Schedule BAM RD REB-2 illustrate how
16 Mr. Brubaker's proposals for selecting the NCPs from a limited number of months differ
17 from selecting NCPs whenever they occur throughout the year. The shaded boxes
18 correspond to the highest annual NCPs. It is clear from the Schedules that for a number of
19 rate schedules the NCPs occur outside Mr. Brubaker's selection months.

20

1 **Q. DOES MR. BRUBAKER'S CHOICE OF NCPS RESULT IN A HIGHER ALLOCATION OF COSTS TO**
2 **THE RESIDENTIAL CLASS?**

3 A. Yes. Schedule BAM RD REB-1 and Schedule BAM RD REB-2 include calculations
4 demonstrating the difference in the A&E allocators derived from using Mr. Brubaker's
5 NCPs compared to using NCPs from throughout the year. Limiting the NCP selection
6 produces a lower allocation of costs to the Large General Service class while increasing the
7 allocation to the Residential class. For example, based on a 4 NCP, Mr. Brubaker's
8 selection of NCPs from a limited number of months results in an allocation of 51.71% to
9 the Residential class and only 15.71% to the Large General Service class compared to a
10 51.24% allocation to the Residential class and a 17.10% allocation to the Large General
11 Service class that would be produced by selecting NCPs based on annual maximums. Based
12 on a 2 NCP, Mr. Brubaker's selection of NCPs from a limited number of months results in
13 an allocation of 54.18% to the Residential class and only 14.71% to the Large General
14 Service class compared to a 53.00% allocation to the Residential class and a 16.28%
15 allocation to the Large General Service class that would be produced by selecting NCPs
16 based on annual maximums. These allocation differences can have significant impacts on
17 the class cost assignments due to the large amount of investment and expenses that are
18 allocated based on a production allocator. As illustrated on page 10 of the PSC Staff Rate
19 Design and Class Cost of Service Report, production capacity is the largest functionalized
20 cost category representing 40% of the cost of investment and associated expenses. The

1 | Average and Excess production method proposed by Mr. Brubaker should be rejected
2 | because of its unreasonable over allocation of costs to the Residential class.

3 | **Q. DO YOU AGREE WITH MR. BRUBAKER'S CONCLUSION THAT OFF-SYSTEM SALES REVENUE**
4 | **SHOULD BE ALLOCATED ON THE BASIS OF KWH?**

5 | **A.** No. To allocate off system sales revenue on energy alone as Mr. Brubaker suggests would
6 | ignore that plant investment is a component of the cost of generating off-system sales
7 | volumes.

8 | **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

9 | **A.** Yes, it does.

KCPL Monthly NCP Worksheet Modified By OPC To Illustrate Excess Demand Calculations

KCPL
MO Demand Allocators
Derivation of NCP Allocators

Estimated NCP Demands

Line	January	February	March	April	May	June	July	August	September	October	November	December	Annual Sum 4 NCP	Average 4 NCP	Excess Demand	Share of Excess	June-Sept. Sum 4 NCP	Average 4 NCP	Excess Demand	Share of Excess	
1	25,288	22,887	22,867	25,083	26,212	26,212	33,560	33,560	33,560	33,560	28,653	30,678	137,780	137,780	0	0	136,044	136,044	0	0	
2	40,582	37,233	30,843	29,506	31,951	35,067	38,605	38,246	32,590	28,898	27,078	30,593	150,820	150,820	0	0	141,179	141,179	0	0	
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	161,200	156,938	148,475	156,112	178,520	186,523	205,804	205,376	193,822	173,320	155,197	173,867	803,488	803,488	0	0	803,488	803,488	0	0	
5	164,332	160,328	132,068	117,087	125,457	141,907	148,035	145,089	126,882	106,356	115,144	147,554	620,816	620,816	0	0	620,816	620,816	0	0	
6	31,658	18,319	18,725	10,738	11,865	10,603	11,658	11,709	11,653	10,135	10,489	15,805	72,708	72,708	0	0	45,322	45,322	0	0	
7	413,659	397,372	350,979	338,535	374,004	416,907	430,770	433,220	402,227	350,043	346,582	407,487	1,785,632	446,403	277,935	189,108	422,281	277,935	144,986	15,714	
8	131,079	131,602	140,191	143,667	150,213	150,604	150,639	150,639	139,281	122,852	125,275	131,853	616,987	616,987	0	0	605,655	605,655	0	0	
9	50,903	55,956	48,831	57,583	61,905	67,633	71,028	73,466	67,468	64,854	64,168	60,542	266,835	266,835	0	0	262,623	262,623	0	0	
10	58,998	60,762	59,485	64,628	71,038	72,844	76,787	72,483	64,854	64,854	64,168	60,542	303,477	303,477	0	0	303,477	303,477	0	0	
11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
13	62,619	58,866	64,254	57,551	62,124	71,051	69,754	67,416	64,042	60,344	64,252	54,151	272,048	272,048	0	0	271,807	271,807	0	0	
14	10,558	11,440	12,358	12,403	13,021	15,852	16,392	15,391	13,397	13,076	13,076	12,268	58,540	58,540	0	0	58,237	58,237	0	0	
15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
16	313,559	310,427	320,150	335,842	359,302	369,348	393,322	369,075	350,053	310,030	314,397	301,735	1,517,487	378,372	262,313	117,059	1,501,798	378,372	113,137	12,268	
17	1,838	1,725	1,527	1,976	1,957	2,184	2,388	2,297	2,185	2,002	1,816	2,054	9,014	9,014	0	0	9,014	9,014	0	0	
18	185	193	147	177	203	227	230	236	190	146	100	133	951	951	0	0	929	929	0	0	
19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
20	143,316	142,757	136,703	156,368	178,412	214,357	242,841	228,236	202,358	177,287	150,143	148,776	885,492	885,492	0	0	885,492	885,492	0	0	
21	30,137	28,654	23,913	25,265	25,080	28,126	30,634	28,448	26,310	24,278	22,495	25,772	118,033	118,033	0	0	113,385	113,385	0	0	
22	6,890	8,004	8,841	4,648	4,274	4,512	5,092	5,497	5,193	4,392	5,313	7,120	32,343	32,343	0	0	21,963	21,963	0	0	
23	184,847	182,632	189,131	188,468	206,826	249,405	281,649	262,703	238,435	208,114	179,868	181,855	1,045,833	261,458	134,069	127,389	1,030,192	261,458	133,479	13,388	
24	142	100	98	98	124	127	167	155	122	89	83	99	721	721	0	0	700	700	0	0	
25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
30	78,187	76,720	58,543	58,819	81,628	102,096	100,800	97,803	85,041	66,380	63,122	60,864	386,548	386,548	0	0	386,548	386,548	0	0	
31	8,392	5,866	4,268	3,442	4,337	4,839	4,543	3,708	2,967	2,967	3,445	4,475	21,339	21,339	0	0	17,417	17,417	0	0	
32	3,738	3,471	2,365	1,445	1,422	1,396	1,554	1,503	1,271	996	1,413	2,265	11,776	11,776	0	0	5,713	5,713	0	0	
33	1,411	1,482	1,245	1,320	1,811	2,121	1,685	1,732	1,641	1,408	1,428	1,305	7,449	7,449	0	0	7,179	7,179	0	0	
34	68,868	67,382	66,450	66,125	69,423	110,669	108,688	105,441	92,881	71,721	69,481	78,008	427,833	106,958	51,036	55,922	417,558	106,958	51,036	5,788	
35	301,871	370,857	308,003	312,989	418,950	636,086	717,132	721,253	685,305	298,956	368,708	626,210	2,529,945	2,529,945	0	0	2,529,945	2,529,945	0	0	
36	133,644	124,154	99,989	82,716	98,481	132,865	143,853	143,784	87,655	73,358	95,048	108,023	518,476	518,476	0	0	518,476	518,476	0	0	
37	57,778	54,954	43,831	31,437	31,238	36,307	34,140	36,883	24,728	19,052	38,615	64,896	210,422	210,422	0	0	132,059	132,059	0	0	
38	127	120	92	83	135	177	233	249	152	89	109	138	810	810	0	0	810	810	0	0	
39	583,421	549,174	452,985	437,235	548,814	794,528	895,453	902,588	568,721	388,454	503,481	617,770	3,199,301	824,825	318,167	506,858	3,181,291	795,323	318,167	47,156	
40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
41	23,507	22,508	22,448	21,562	21,289	20,650	20,877	21,432	21,841	22,623	23,359	24,681	93,065	93,065	12,722	1,298	84,840	21,210	10,539	1,168	
42	23,507	22,508	22,448	21,562	21,289	20,650	20,877	21,432	21,841	22,623	23,359	24,681	93,065	93,065	12,722	1,298	84,840	21,210	10,539	1,168	
TOTAL	3,199,301	3,199,301	3,199,301	3,199,301	3,199,301	3,199,301	3,199,301	3,199,301	3,199,301	3,199,301	3,199,301	3,199,301	3,199,301	3,199,301	3,199,301	3,199,301	3,199,301	3,199,301	3,199,301	3,199,301	3,199,301

NCP Demand Worksheet Modified By OPC To Illustrate Excess Demand Calculations

KCPM
MO Demand Allocators
Derivation of NCP Allocators

Line	January	February	March	April	May	June	July	August	September	October	November	December	Annual Sum 12 M	Average 1 NCP	Average Demand	Excess Demand	Share of Excess	MIEC July & August Sum 2 NCP	Average 2 NCP	Average Demand	Excess Demand	Share of Excess	
1	LGSP	25,264	21,655	22,867	25,033	26,212	32,899	34,540	35,142	35,914	36,854	38,873	384,884	32,074	32,074	0	0	68,102	32,074	32,074	0	0	
2	LGSPA	40,545	37,233	30,843	29,596	31,951	35,063	36,805	32,560	28,698	27,076	26,663	276,551	23,046	23,046	0	0	76,796	23,046	23,046	0	0	
3	LGSS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	LGSSA	181,200	158,819	149,475	158,112	178,500	198,425	206,984	193,822	173,320	155,197	173,820	1,411,034	117,587	117,587	0	0	295,992	117,587	117,587	0	0	
5	LGSSB	64,932	60,328	57,069	57,069	57,069	57,069	57,069	57,069	57,069	57,069	57,069	570,690	47,558	47,558	0	0	104,854	47,558	47,558	0	0	
6	LGSSC	11,985	11,985	11,985	11,985	11,985	11,985	11,985	11,985	11,985	11,985	11,985	119,850	9,988	9,988	0	0	23,511	9,988	9,988	0	0	
7	TOTAL	413,659	397,372	350,979	335,833	374,004	416,907	438,770	433,220	402,227	356,043	348,962	4,077,487	338,149	338,149	157,700	16.28%	869,990	338,149	338,149	157,700	14.71%	
8	LPGBP	131,079	131,002	140,191	143,887	150,214	150,004	158,439	158,031	139,281	122,952	125,275	1,311,653	109,304	109,304	0	0	315,470	109,304	109,304	0	0	
9	LPGBPO	50,903	53,936	46,831	57,593	61,895	57,653	74,024	79,469	60,439	57,803	47,010	42,820	444,491	37,041	37,041	0	0	144,491	37,041	37,041	0	0
10	LPGBS	56,398	60,782	59,485	64,629	72,038	74,844	78,112	75,767	72,885	64,854	84,158	60,342	155,940	12,995	12,995	0	0	155,940	12,995	12,995	0	0
11	LPGBPO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	LPGBSS	62,819	50,966	64,264	57,351	62,124	71,031	66,234	67,419	84,042	60,344	84,252	54,151	140,345	11,688	11,688	0	0	136,713	11,688	11,688	0	0
13	LPGBSSA	10,558	11,140	12,359	12,403	13,021	15,057	14,392	15,391	13,397	13,076	13,266	12,268	30,449	2,537	2,537	0	0	29,783	2,537	2,537	0	0
14	LPGBSSB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	LPGBSSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	TOTAL	313,556	310,427	323,150	335,842	359,302	369,348	393,122	389,075	350,053	319,030	314,397	3,017,335	258,696	258,696	131,034	11.55%	782,996	258,696	258,696	131,034	12.07%	
17	MGSP	1,836	1,725	1,577	1,878	1,937	2,184	2,359	2,187	2,188	2,002	1,818	2,054	4,645	387	387	0	0	4,645	387	387	0	0
18	MGSPA	185	189	147	177	203	227	283	235	190	146	100	133	522	43	43	0	0	522	43	43	0	0
19	MGSPB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	MGSPH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21	MGSS	143,216	147,737	138,700	138,398	178,412	214,531	242,341	228,298	202,358	172,297	150,143	146,776	468,777	38,981	38,981	0	0	468,777	38,981	38,981	0	0
22	MGSSA	30,331	26,954	23,913	25,265	25,080	28,736	30,394	28,445	26,310	24,278	22,495	25,772	60,635	5,053	5,053	0	0	56,949	5,053	5,053	0	0
23	MGSSB	5,390	5,004	5,844	4,848	4,274	4,512	5,902	5,497	5,333	4,392	5,313	7,700	16,363	1,363	1,363	0	0	11,459	1,363	1,363	0	0
24	TOTAL	184,847	182,532	169,131	166,668	209,528	249,405	281,649	282,703	236,435	206,114	179,869	1,811,835	155,262	155,262	134,069	12.55%	544,352	155,262	155,262	134,069	12.88%	
25	SGSP	142	142	100	98	124	137	137	143	122	89	83	99	425	35	35	0	0	350	35	35	0	0
26	SGSPA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27	SGSPB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28	SGSPH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	SGSPU	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	SGSS	78,187	76,730	58,543	59,819	81,826	102,096	106,609	97,842	69,441	66,260	63,122	69,964	202,705	16,892	16,892	0	0	198,412	16,892	16,892	0	0
31	SGSSA	8,392	6,396	4,268	3,442	4,337	4,539	4,545	4,230	3,786	2,967	3,445	4,475	11,958	995	995	0	0	8,793	995	995	0	0
32	SGSSH	3,798	3,411	2,305	1,445	1,422	1,368	1,554	1,503	1,271	988	1,413	2,283	7,207	601	601	0	0	3,057	601	601	0	0
33	SGSSU	1,411	1,402	1,245	1,320	1,813	2,121	1,885	1,732	1,641	1,408	1,428	1,305	4,032	333	333	0	0	3,417	333	333	0	0
34	TOTAL	69,868	67,392	66,460	68,125	89,423	110,689	108,588	105,441	82,861	71,721	69,491	70,068	216,316	18,063	18,063	62,127	5.47%	214,028	18,063	18,063	62,127	5.47%
35	RESA	391,871	370,857	309,003	312,989	418,959	495,896	571,137	521,758	465,858	296,986	368,708	428,210	1,438,880	119,833	119,833	0	0	1,438,880	119,833	119,833	0	0
36	RESB	124,134	124,134	99,509	92,716	86,491	132,961	143,793	143,793	97,855	72,358	95,046	136,823	287,656	23,971	23,971	0	0	287,656	23,971	23,971	0	0
37	RESC	37,728	34,894	34,894	31,437	31,238	35,307	34,140	36,893	24,729	19,052	39,613	34,598	112,377	9,365	9,365	0	0	71,023	9,365	9,365	0	0
38	RTOD	127	120	92	93	135	137	133	148	132	89	106	136	481	40	40	0	0	481	40	40	0	0
39	TOTAL	583,421	549,174	452,965	437,235	548,814	794,528	896,453	802,569	598,721	396,454	503,481	617,776	1,839,395	151,668	151,668	601,531	53.00%	1,798,042	151,668	151,668	601,531	54.18%
40	Off Peak Ltg	23,507	22,508	22,448	21,962	21,289	20,090	20,877	21,432	21,841	22,623	23,359	23,681	47,198	3,933	3,933	13,060	1.15%	42,309	3,933	3,933	13,060	0.99%
41	TOTAL NON-BF	23,507	22,508	22,448	21,962	21,289	20,090	20,877	21,432	21,841	22,623	23,359	23,681	47,198	3,933	3,933	13,060	1.15%	42,309	3,933	3,933	13,060	0.99%
42	TOTAL	1,166,842	1,091,646	975,413	957,467	1,098,623	1,589,056	1,792,906	1,605,110	1,197,175	792,908	1,006,932	1,234,651	3,886,280	313,301	313,301	1,134,943	29.15%	4,230,822	313,301	313,301	1,134,943	26.80%

