Exhibit No.:	
Issues:	Demand Allocator and "Unused Energy" Allocator
Witness:	Erin L. Maloney
Sponsoring Party:	MO PSC Staff
Type of Exhibit:	Rebuttal Testimony
Case No.:	ER-2006-0314
Date Testimony Prepared:	September 8, 2006

MISSOURI PUBLIC SERVICE COMMISSION

UTILITY OPERATIONS DIVISION

REBUTTAL TESTIMONY

OF

ERIN L. MALONEY

KANSAS CITY POWER & LIGHT COMPANY

CASE NO. ER-2006-0314

Jefferson City, Missouri
September 2006

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of the Application of Kansas City Power & Light Company for Approval to Make Certain Changes in its Charges for Electric Service to Begin the Implementation of Its Regulatory Plan	)))))	Case No. ER-2006-0314

AFFIDAVIT OF ERIN L. MALONEY

STATE OF MISSOURI)
) **ss**
COUNTY OF COLE)

Erin L. Maloney, of lawful age, on her oath states: that she has participated in the preparation of the following Rebuttal Testimony in question and answer form, consisting of 5 pages of Rebuttal Testimony to be presented in the above case, that the answers in the following Rebuttal Testimony were given by her; that she has knowledge of the matters set forth in such answers; and that such matters are true to the best of her knowledge and belief.

Erin L. Maloney

Subscribed and sworn to before me this 8th day of September, 2006.

ROSEMARIE RIEDL
MY COMMISSION EXPIRES
June 1, 2009
NOTARY SEAL
#05509539
COLE COUNTY
NOTARY PUBLIC, STATE OF MISSOURI

Notary Public

My commission expires June 1, 2009

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Kansas City Power & Light Company

CASE NO. ER-2006-0314

Q. Please state your name and business address.

A. Erin L. Maloney, Missouri Public Service Commission, P.O. Box 360, Jefferson City, Missouri, 65102.

Q. Are you the same Commission Staff (Staff) witness Erin L. Maloney that filed direct testimony in this case?

A. Yes I am. I filed direct testimony on August 8, 2006, on the issue of losses and jurisdictional allocation factors.

Q. Why are you filing rebuttal testimony in this case?

A. The purpose of this rebuttal testimony is to respond to the direct testimony of Kansas City Power & Light's (KCP&L or Company) witness Don A. Frerking on the following two issues:

(1) Derivation of the Demand Allocator

(2) Derivation of KCP&L's "Unused Energy" Allocator

Derivation of the Demand Allocator

Q. How do Staff and KCP&L differ in the derivation of the demand allocator?

A. Staff uses a 4 Coincident Peak (4 CP) methodology to calculate the demand allocator and the Company uses a 12 Coincident Peak (12 CP) methodology.

Q. What is the difference between a 4 CP utility and a 12 CP utility?

A. A 4 CP utility is a utility that has high demand during the four summer months and relatively low demands during the off-peak months. A 12 CP utility will have a relatively flat load curve with not a lot of statistical variation in peak demand on a month to month basis.

Q. Does Mr. Frerking explain the reason for selecting a 12 CP methodology in the Company's derivation of the demand allocator?

A. Mr. Frerking gives no explanation. He states on page 6, lines 4-6 of his direct testimony that "The Demand allocator is a 12-month average for the coincident peak demands for the Missouri and Kansas jurisdictional customers and the firm wholesale FERC jurisdictional customers."

Q. Does the Staff have a foundation for using the 4 CP methodology in this case?

A. Yes, as stated in my direct testimony, the 4 CP methodology is appropriate for a utility, such as KCP&L, where the monthly peak demands during summer months are significantly higher then the non-summer monthly peak demands.

Q. Did you present support for the usage of the 4 CP methodology in your direct testimony?

A. Yes, I performed various monthly peak mathmatical tests on the test year data to make this determination. The Federal Energy Regulatory Commission (FERC) relied upon and employed these tests in a number of electric utility cases which are cited and attached as Schedule 1.

Q. Can you please briefly review the FERC jurisdictional demand allocation methodology tests that you used in your analysis?

A. I examined the following three tests and comparisons developed and used by the FERC for this determination: 1) the on- and off-peak relative demand test, 2) the average to annual peak demand test, and 3) the low to annual peak demand test. In addition FERC has used another test - the number of occurrences of off-peak months having higher demand than peak months and I have included the results of that test in my rebuttal testimony.

Q. What were the results of your analysis?

A. As indicated in my direct testimony, each FERC test and comparison fell within or below the range of values used by the FERC indicating that the adoption a 4 CP methodology should be used for KCP&L.

Q. Did you perform any additional analyses using these FERC tests for the purpose of this rebuttal testimony?

A. Yes. To supplement my earlier analysis of the test year data, I performed the four FERC tests using the Company's monthly peaks reported on FERC Form 1, page 401b 'Monthly Peaks and Output' for each of the years 1999-2004. The results of these tests and the system peaks are contained and attached as Schedule 2.

Q. Which jurisdictional demand allocation methodology would be the most appropriate for KCP&L, based on these analyses and upon the actual historic pattern of monthly system peak demands?

A. For each of the seven years of data, the test year (2005) and the years 1999-2004, without exception, the four tests and comparisons yielded a result that fell in or below the range established and applied by the FERC when adopting a 4 CP methodology.

Q. Has this issue been raised with the Commission in the past?

A. Yes, in Case No. ER-83-49, the last KCP&L rate increase case, the Staff, the Department of Energy (DOE) and the Company agreed to use a four coincidental peak method to develop the Missouri jurisdictional demand allocation factor. Please see Cary Featherstone's rebuttal testimony for a recounting of the history of this issue.

Derivation of the "Unused Energy" Allocator

Q. What is your understanding of the derivation of the "Unused Energy" allocator?

A. The "Unused Energy" allocator is used in a method developed by KCP&L to try to measure the energy that is available for off-system sales. KCP&L first takes the 12 CP demand average for each jurisdiction and multiplies it by 8760 to get a projected amount of total "Available Energy". Then, KCP&L subtracts the actual energy that was used by the individual jurisdictions and calls that the "Unused Energy" per jurisdiction. The "Unused Energy" allocator is derived by dividing each jurisdictions' "Unused Energy" by the total amount of "Unused Energy". Please see Lena Mantle's rebuttal testimony regarding the shortcomings of this method and how this allocator favors jurisdictions with lower load factors.

Q. Does the "Available Energy" or "Unused Energy" calculated using KCP&L's method yield a value that relates to actual energy that was available for disposition or the actual energy that was sold off-system in the year ending December 31, 2005?

A. No. For the test year (2005), the "Available Energy" calculated using KCP&L's theory was 23,233,216 MWh and the actual total energy available for disposition in the test year was 20,398,545 MWh. The total "Unused Energy" calculated using their theory was 7,545,659 MWh while the actual energy that was sold off-system was only 4,468,707

MWh. Such wide divergence from actual experience demonstrates the complete inadequacy of the method for the purpose of setting rates.

Q. Is there any other problem with the Company's derivation of the "Unused Energy" allocator?

A. Yes, the Company's theory to derive this allocator is based on a 12 CP demand average. In any case that a demand allocator is being derived I would recommend the use of a 4 CP average not a 12 CP average.

Q. By making these observations about the Company's use of a 12 CP average in the derivation of the "Unused Energy" allocator, are you endorsing the use of this "Unused Energy" allocator in this case?

A. No, I do not recommend the use of the "Unused Energy" allocator. For further discussion on the "Unused Energy" allocator, see the rebuttal testimonies of Staff witnesses Mantle and Featherstone.

Q. Does this conclude your prepared Rebuttal Testimony?

A. Yes, it does.

FERC System Demand Test # 1 - Difference in Average of Peak Months to Non-Peak Months as Percentage of Annual Peak

Company	FERC Reference	Year	Comment
Louisiana Power & Light Co.	Opinion No. 813, 59 FPC 968	1977	31% difference 4 CP
Louisiana Power & Light Co.	Opinion No. 110, 14 FERC 61,075	1981	26% difference 4 CP
Lockhart Power Co.	Opinion No. 29, 4 FERC 61,337	1978	18% difference 12 CP
Illinois Power Co.	11 FERC at 65,248		19% difference 12 CP
Commonwealth Edison Co.	15 FERC at 65,196		16.4%-24.9% differences 4 CP
Southwestern Public Service Co.	18 FERC at 65,034		average difference of 22.9%, high of 28.3% 3 CP

FERC System Demand Test # 2 - Average of the Monthly Peaks as a Percentage of the Annual Peak

Company	FERC Reference	Year	Comment
Illinois Power Co.	11 FERC at 65,248-49		81% 12 CP
El Paso Electric Co.	Opinion No. 109, 14 FERC 61,082	1981	84% 12 CP
Lockhart Power Co.	Opinion No. 29, 4 FERC 61,337	1978	84% 12 CP
Southern California Edison Co.	Opinion No. 821, 59 FPC 2167	1977	87.8% 12 CP
Louisiana Power & Light Co.	Opinion No. 110, 14 FERC 61,075	1981	81.2% 4 CP
Commonwealth Edison Co.	15 FERC at 65,198		79.4%-79.5% 4 CP
Southwestern Public Service Co.	18 FERC at 65,035		80.1% 3 CP
Delmarisa Power & Light Co.	17 FERC at 65,202		83.3% 12 CP

FERC System Demand Test # 3 - Lowest Monthly Peak as a Percentage of the Annual Peak

Company	FERC Reference	Year	Comment
Louisiana Power & Light Co.	Opinion No. 813, 59 FPC 968	1977	56% 4 CP
Idaho Power Co.	Opinion No. 13, 3 FERC 61,108	1978	58% 3 CP
Southwestern Electric Power Co.	Opinion No. 28, 4 FERC 61,330	1978	55.8% 4 CP
Lockhart Power Co.	Opinion No. 29, 4 FERC 61,337	1978	73% - 12 CP
Southern California Edison CO.	Opinion No. 821, 59 FPC 2167	1977	79% 12 CP
Alabama Power Co.	Opinion No. 54, 8 FERC 61,083	1979	75% 12 CP
Illinois Power Co.	11 FERC at 65,248		66% 12 CP

Commonwealth Edison Co.	15 FERC at 65,198		64.6%-67.8% 4 CP
Louisiana Power & Light Co.	Opinion 110, 14 FERC 61,075	1981	61.9% 4 CP
El Paso Electric Co.	Opinion No. 109, 14 FERC 61,082	1981	71% 12 CP
Carolina Power & Light Co.	Opinion No. 19, 4 FERC 61,107	1978	72% 12 CP
New England Power Co.	Opinion No. 803, 58 FPC 2322	1977	80% 12 CP
Southwestern Public Service Co.	18 FERC at 65,034		on average almost 67% 3 CP
Delmarisa Power & Light Co.	17 FERC at 65,201		71.4% 12 CP

Results of FERC analyses:

Monthly Peaks and Output

1999 **Monthly Peak**

Month	Total Monthly Energy	Monthly Non-Requirements Sales for Resale & Associated Losses	MW	Day of Month	Hour
January	1,563,152	356,251	2,171	4	600
February	1,176,684	177,812	1,954	22	600
March	1,246,938	161,520	1,859	8	2300
April	1,105,152	99,204	1,778	8	1300
May	1,258,442	188,468	1,910	28	1500
June	1,415,667	107,956	2,766	7	1,600
July	1,791,349	99,463	3,251	29	1,500
August	1,612,177	98,252	3,087	12	1,500
September	1,349,442	178,662	2,961	2	1,600
October	1,300,729	237,845	1,963	12	1,400
November	1,243,383	207,853	1,812	30	1,800
December	1,383,488	212,097	2,085	21	1,800

FERC System Demand Test #1-Difference in Average Demand in Peak Months and Average Demand in Non_Peak Months as percentage of Annual Peak

			4 CP Range:
3,016	0.927791449	***33.06%***	**26-31%**
1,942	0.597200861		

FERC System Demand Test #2- Average of Monthly Peak Demands as Percentage of Annual Peak

2,300	0.707397724	***70.74%***	**78-81%**

FERC System Demand Test #3 - Lowest Monthly Peak as Percentage of Annual Peak

1,778	0.546908643	***54.69%***	**55-60%**

FERC System Demand Test #4 - What extent do peak

Demand in non-peak months never exceed demand in peak months.

Peak Demands:	2,766	Non_Peak De	2,171
	3,251		1,954
	3,087		1,859
	2,961		1,778
			1,910
			1,963
			1,812
			2,085

Monthly Peaks and Output

2000 **Monthly Peak**

Month	Total Monthly Energy	Monthly Non-Requirements Sales for Resale & Associated Losses	MW	Day of Month	Hour
January	1363574	175338	2026	27	1800
February	1217835	145679	1937	1	1900
March	1246474	163401	1776	2	1800
April	1141485	129583	1885	19	1600
May	1358703	139379	2936	31	1500
June	1463360	134527	2958	1	1500
July	1741886	137847	3230	10	1600
August	1868379	111742	3374	28	1500
September	1477478	128947	3269	11	1500
October	1250220	120744	2352	3	1500
November	1260585	115162	2045	20	1800
December	1422641	86139	2382	18	1800

FERC System Demand Test #1-Difference in Average Demand in Peak Months and Average Demand in Non_Peak Months as percentage of Annual Peak **4 CP Range:**

3,208	0.950726141	***30.84%***	**26-31%**
2,167	0.642375519		

FERC System Demand Test #2- Average of Monthly Peak Demands as Percentage of Annual Peak

2,514	0.745159059	***74.52%***	**78-81%**

FERC System Demand Test #3 - Lowest Monthly Peak as Percentage of Annual Peak

1,776	0.526378186	***52.64%***	**55-60%**

FERC System Demand Test #4 - What extent do peak

Demand in non-peak months never exceed demand in peak months.

Peak Demands:		Non_Peak De
	2958	2026
	3230	1937
	3374	1776
	3269	1885
		2936
		2352
		2045
		2382

Monthly Peaks and Output

2001 **Monthly Peak**

Month	Total Monthly Energy	Monthly Non-Requirements Sales for Resale & Associated Losses	MW	Day of Month	Hour
January	1,422,218	158,181	2,233	2	1,800
February	1,221,389	99,089	2,147	2	1,900
March	1,247,236	137,941	1,981	1	1,800
April	1,294,726	261,422	1,988	27	1,500
May	1,352,380	200,288	2,579	16	1,900
June	1,583,570	269,618	2,858	11	1,600
July	1,939,234	234,086	3,304	30	1,600
August	1,865,699	259,262	3,352	9	1,500
September	1,587,205	431,511	2,722	4	1,600
October	1,572,350	504,867	1,920	3	1,600
November	1,486,552	455,401	1,988	28	1,800
December	1,569,545	419,798	1,934	26	1,800
	18,142,104				

FERC System Demand Test #1-Difference in Average Demand in Peak Months and Average Demand in Non_Peak Months as percentage of Annual Peak

			4 CP Range:
3,059	0.912589499	***28.72%***	**26-31%**
2,096	0.625372912		

FERC System Demand Test #2- Average of Monthly Peak Demands as Percentage of Annual Peak

2,417	0.721111774	***72.11%***	**78-81%**

FERC System Demand Test #3 - Lowest Monthly Peak as Percentage of Annual Peak

1,920	0.572792363	***57.28%***	**55-60%**

FERC System Demand Test #4 - What extent do peak ***Demand in non-peak months never exceed demand in peak months***

Peak Demands:	2,858	Non_Peak De	2,233
	3,304		2,147
	3,352		1,981
	2,722		1,988
			2,579
			1,920
			1,988
			1,934

Monthly Peaks and Output

2002 **Monthly Peak**

Month	Total Monthly Energy	Monthly Non-Requirements Sales for Resale & Associated Losses	MW	Day of Month	Hour
January	1,508,893	335,406	2,105	2	1800
February	1,249,993	223,083	2,095	26	1900
March	1,371,497	251,567	2,036	4	1900
April	1,284,996	243,342	2,131	18	1700
May	1,480,099	376,185	2,779	31	1600
June	1,769,785	320,952	3,083	26	1600
July	1,958,303	264,713	3,335	26	1600
August	1,925,955	313,545	3,333	1	1600
September	1,794,163	446,543	3,139	6	1500
October	1,788,701	674,415	2,665	1	1600
November	1,798,934	714,958	1,957	25	1800
December	1,858,111	673,956	2,055	3	1800
	19,789,430				

FERC System Demand Test #1-Difference in Average Demand in Peak Months and Average Demand in Non_Peak Months as percentage of Annual Peak

			4 CP Range:
3,223	0.966266867	***29.82%***	**26-31%**
2,228	0.668028486		

FERC System Demand Test #2- Average of Monthly Peak Demands as Percentage of Annual Peak

2,559	0.767441279	***76.74%***	**78-81%**

FERC System Demand Test #3 - Lowest Monthly Peak as Percentage of Annual Peak

1,957	0.586806597	***58.68%***	**55-60%**

FERC System Demand Test #4 - What extent do peak
Demand in non-peak months never exceed demand in peak months

Peak Demands:	3,083	Non_Peak De	2,105
	3,335		2,095
	3,333		2,036
	3,139		2,131
			2,779
			2,665
			1,957
			2,055

Monthly Peaks and Output

2003 **Monthly Peak**

Month	Total Monthly Energy	Monthly Non-Requirements Sales for Resale & Associated Losses	MW	Day of Month	Hour
January	1,844,970	585,013	2,268	22	1,800
February	1,577,368	458,006	2,165	24	1,900
March	1,538,134	412,935	2,095	5	1,900
April	1,356,318	307,688	2,011	30	1,600
May	1,624,735	512,862	2,556	30	1,600
June	1,791,114	491,717	3,109	24	1,500
July	2,135,605	376,884	3,426	18	1,600
August	2,131,679	403,757	3,610	21	1,500
September	1,749,402	582,026	2,617	10	1,500
October	1,627,619	533,886	2,018	20	1,500
November	1,475,096	373,006	1,994	24	1,800
December	1,843,091	606,748	2,186	10	1,800

FERC System Demand Test #1-Difference in Average Demand in Peak Months and Average Demand in Non_Peak Months as percentage of Annual Peak

			4 CP Range:
3,191	0.883795014	***28.50%***	**26-31%**
2,162	0.598788089		

FERC System Demand Test #2- Average of Monthly Peak Demands as Percentage of Annual Peak

2,505	0.693790397	***69.38%***	**78-81%**

FERC System Demand Test #3 - Lowest Monthly Peak as Percentage of Annual Peak

1,994	0.552354571	***55.24%***	**55-60%**

FERC System Demand Test #4 - What extent do peak ***Demand in non-peak months never exceed demand in peak months***

Peak Demands:	3,109	Non_Peak De	2,268
	3,426		2,165
	3,610		2,095
	2,617		2,011
			2,556
			2,018
			1,994
			2,186

Monthly Peaks and Output

2004 **Monthly Peak**

Month	Total Monthly Energy	Monthly Non-Requirements Sales for Resale & Associated Losses	MW	Day of Month	Hour
January	1,916,295	615,155	2,335	5	1800
February	1,656,914	479,027	2,235	2	1800
March	1,709,685	587,935	1,858	4	1800
April	1,682,482	632,680	1,895	16	1500
May	1,759,348	500,885	2,734	20	1700
June	1,779,498	462,669	3,009	14	1600
July	1,975,562	452,171	3,384	13	1600
August	1,893,856	461,970	3,376	3	1600
September	1,810,414	506,981	2,874	14	1600
October	1,726,793	623,132	1,977	29	1400
November	1,672,085	555,063	2,129	30	1800
December	1,872,856	590,503	2,376	22	1800

FERC System Demand Test #1-Difference in Average Demand in Peak Months and Average Demand in Non_Peak Months as percentage of Annual Peak

			4 CP Range:
3,161	0.934027778	***28.62%***	**26-31%**
2,192	0.647864953		

FERC System Demand Test #2- Average of Monthly Peak Demands as Percentage of Annual Peak

2,515	0.743252561	***74.33%***	**78-81%**

FERC System Demand Test #3 - Lowest Monthly Peak as Percentage of Annual Peak

1,858	0.549054374	***54.91%***	**55-60%**

FERC System Demand Test #4 - What extent do peak *Demand in non-peak months never exceed demand in peak months*

Peak Demands:		Non_Peak De
	3,009	2,335
	3,384	2,235
	3,376	1,858
	2,874	1,895
		2,734
		1,977
		2,129
		2,376

Monthly Peaks and Output
2005 **Monthly Peak**

Month	Total Monthly Energy	Monthly Non-Requirements Sales for Resale & Associated Losses	MW	Day of Month	Hour
January	1,823,646	480,348	2,313	14	1900
February	1,489,763	382,163	2,186	8	1800
March	1,476,585	312,887	2,003	1	1900
April	1,467,612	394,798	2,042	21	1600
May	1,504,975	288,453	2,615	23	1700
June	1,841,312	324,370	3,338	27	1500
July	2,055,089	344,204	3,512	22	1600
August	1,971,721	313,998	3,426	10	1600
September	1,646,712	218,774	3,007	21	1700
October	1,771,963	584,338	2,754	4	1600
November	1,649,130	497,413	2,209	28	1800
December	1,700,067	326,961	2,563	7	1800
	20,398,575	4,468,707			

FERC System Demand Test #1-Difference in Average Demand in Peak Months and Average Demand in Non_Peak Months as percentage of Annual Peak

			4 CP Range:
3,321	0.94554385	***28.05%***	**26-31%**
2,336	0.665041287		

FERC System Demand Test #2- Average of Monthly Peak Demands as Percentage of Annual Peak

2,664	0.758542141	***75.85%***	**78-81%**

FERC System Demand Test #3 - Lowest Monthly Peak as Percentage of Annual Peak

2,003	0.570330296	***57.03%***	**55-60%**

FERC System Demand Test #4 - What extent do peak
Demand in non-peak months never exceed demand in peak months

Peak Demands:	3,338	Non_Peak De	2,313
	3,512		2,186
	3,426		2,003
	3,007		2,042
			2,615
			2,754
			2,209
			2,563