

Part 1 - Appendix 3D
Kansas City Power & Light Reports

Missouri 4 CSR 240-22.030 8.C Reporting Requirements
Load Analysis and Forecasting

(8)(C) For the net system load, the utility shall provide plots of energy usage and peak demand.

(8)(C)(1) The energy plots shall include the summer, non-summer and total energy usage for each calendar year.

(8)(C)(2) The peak demand plots shall include the summer and winter peak demands.

Compliance: See Plots 3D-1 through 3D-4 for base-case KCP&L forecast reports designed to comply with section (8)(C) reporting requirements.

Forecast uncertainty is quantified through the use of alternative economic scenarios. Moody's Economy.com provided three economic scenarios termed Low, Base and High that represent a 95% confidence range around the base case for economic growth. These economic scenarios were each used to forecast load growth and these forecasts represent a 95% confidence interval around load growth based on the uncertainty due to economic growth.

Linked Files:

IRP_8C_KCPL_NSI_Peak.xls

KCPL Base System Datalyzer.xls

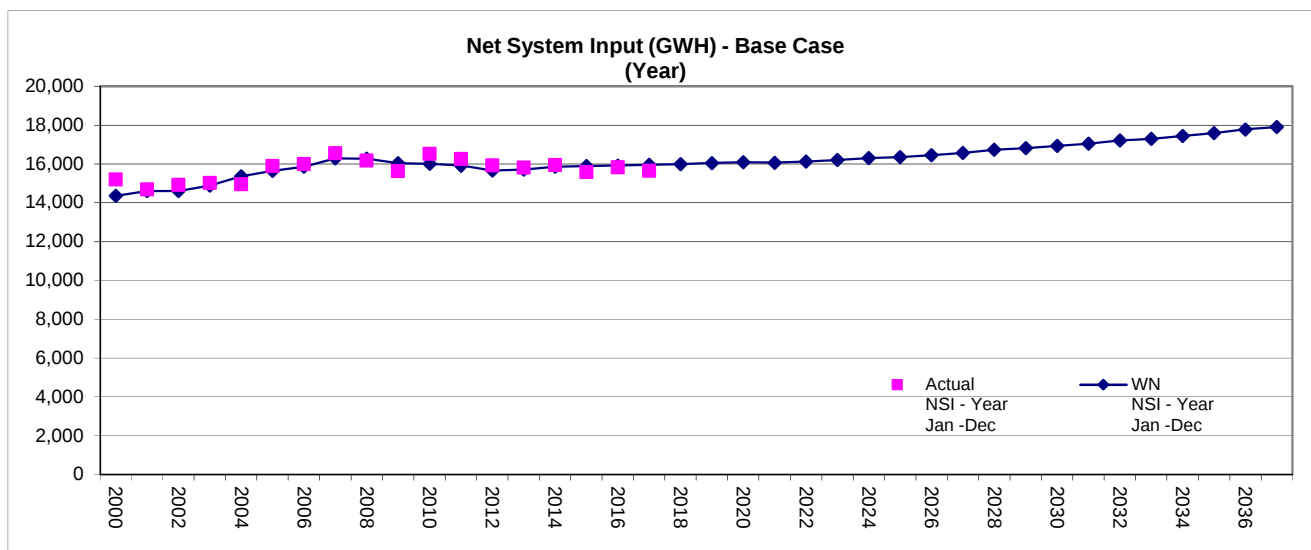
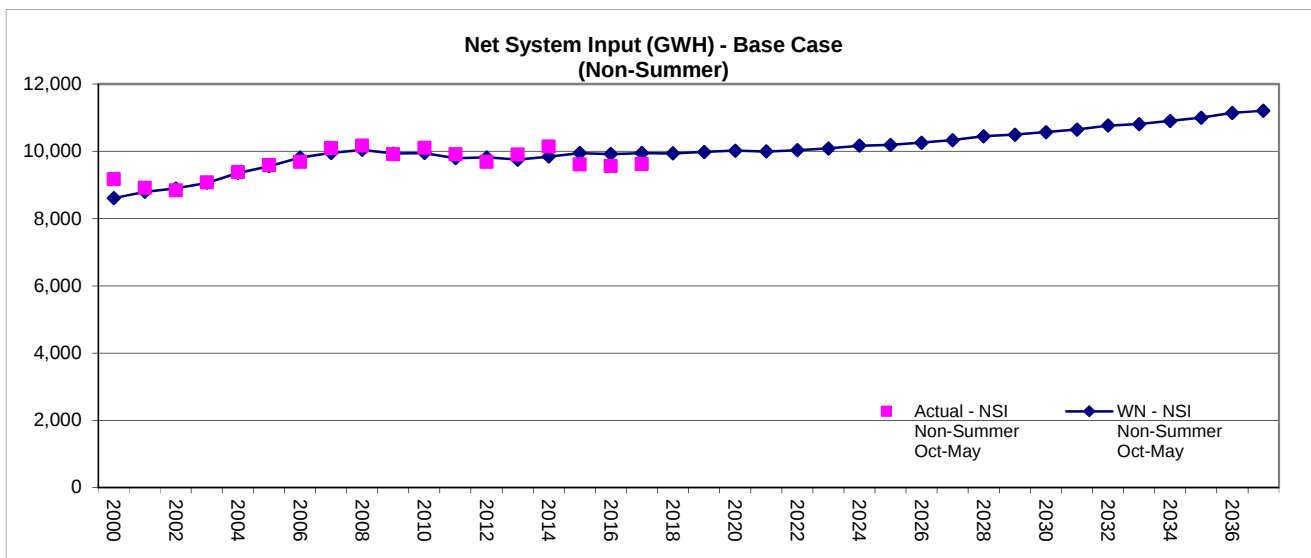
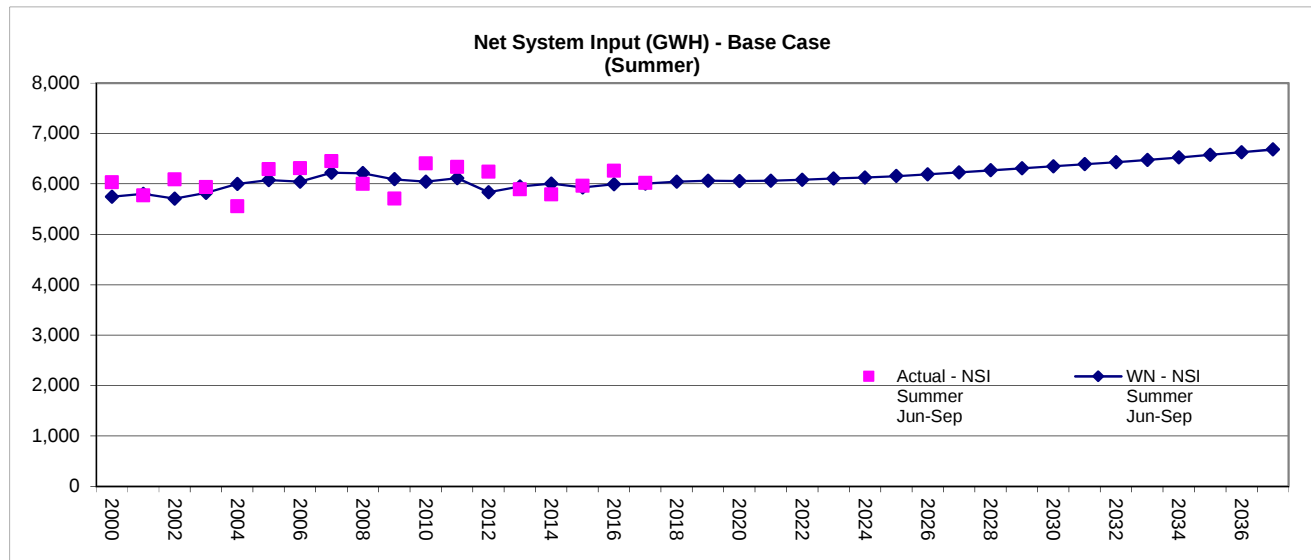
KCPL Low System Datalyzer.xls

KCPL High System Datalyzer.xls

Plot 3D-1 KCP&L Energy Forecast (GWH) - Base Case: Net System Input (NSI)
(Actual vs. Weather Normalized)

Year	Actual - NSI Summer Jun-Sep	WN - NSI Summer Jun-Sep	Actual - NSI Non-Summer Oct-May	WN - NSI Non-Summer Oct-May	Actual NSI - Year Jan -Dec	WN NSI - Year Jan -Dec
2000	6,030.1	5,747.3	9,167.8	8,610.4	15,197.8	14,357.8
2001	5,770.2	5,806.4	8,915.1	8,798.6	14,685.3	14,605.0
2002	6,087.6	5,707.1	8,831.9	8,894.4	14,919.5	14,601.5
2003	5,937.5	5,822.5	9,073.0	9,064.0	15,010.5	14,886.5
2004	5,558.6	5,999.1	9,382.8	9,360.1	14,941.4	15,359.2
2005	6,295.1	6,079.1	9,588.7	9,559.7	15,883.8	15,638.8
2006	6,310.9	6,045.1	9,681.2	9,813.2	15,992.2	15,858.3
2007	6,449.9	6,225.4	10,097.4	9,952.0	16,547.3	16,286.9
2008	5,998.9	6,214.2	10,173.9	10,043.8	16,172.7	16,258.1
2009	5,711.3	6,093.7	9,915.3	9,935.2	15,626.6	16,028.9
2010	6,407.8	6,045.7	10,104.2	9,949.7	16,512.0	15,995.4
2011	6,337.4	6,113.8	9,907.5	9,795.0	16,244.9	15,908.8
2012	6,242.9	5,836.4	9,679.2	9,817.8	15,922.0	15,654.2
2013	5,893.7	5,949.8	9,906.0	9,753.1	15,799.7	15,702.9
2014	5,790.7	6,010.3	10,144.3	9,842.9	15,935.0	15,853.2
2015	5,965.1	5,932.4	9,610.4	9,950.0	15,575.5	15,882.4
2016	6,264.0	5,992.9	9,564.0	9,917.8	15,828.0	15,910.7
2017	6,018.4	6,005.3	9,618.2	9,949.3	15,636.5	15,954.7
2018		6,045.8		9,939.6		15,985.5
2019		6,062.7		9,980.0		16,042.7
2020		6,059.0		10,016.9		16,075.8
2021		6,062.7		9,996.2		16,059.0
2022		6,083.3		10,035.5		16,118.7
2023		6,107.3		10,085.9		16,193.2
2024		6,128.1		10,166.2		16,294.3
2025		6,157.5		10,188.4		16,345.9
2026		6,192.8		10,258.6		16,451.5
2027		6,230.3		10,331.9		16,562.2
2028		6,271.7		10,449.7		16,721.4
2029		6,313.7		10,496.1		16,809.8
2030		6,351.4		10,569.1		16,920.5
2031		6,391.5		10,646.0		17,037.5
2032		6,433.1		10,764.2		17,197.3
2033		6,477.4		10,811.2		17,288.6
2034		6,525.4		10,903.1		17,428.5
2035		6,577.2		11,001.9		17,579.1
2036		6,629.5		11,143.0		17,772.5
2037		6,683.6		11,208.3		17,891.9
'12-'17	-0.7%	0.6%	-0.1%	0.3%	-0.4%	0.4%
'15-'20		0.4%		0.1%		0.2%
'20-'25		0.3%		0.3%		0.3%
'25-'30		0.6%		0.7%		0.7%
'30-'35		0.7%		0.8%		0.8%
'17-'37		0.5%		0.6%		0.6%

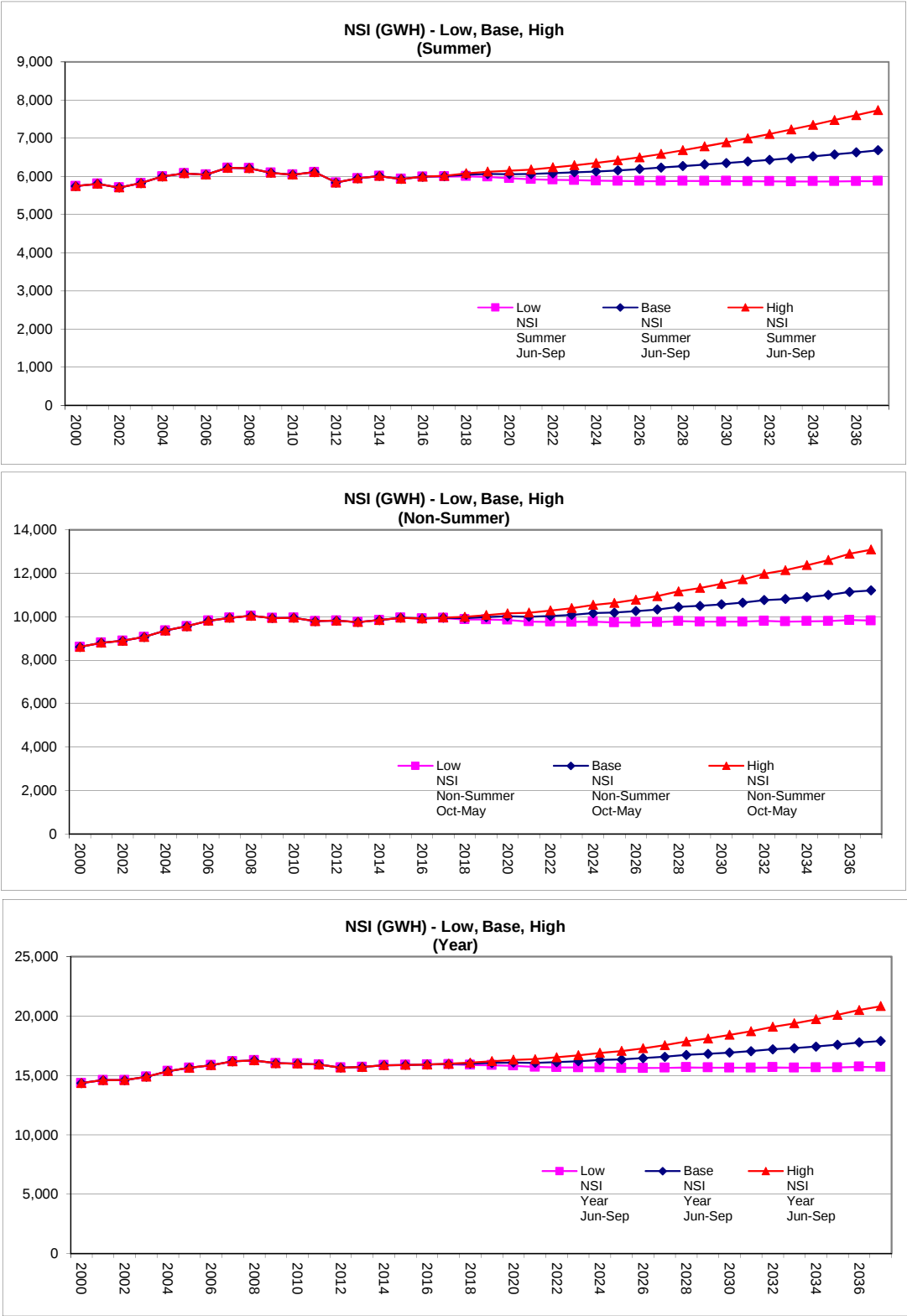
Note: Energy MWH (NSI) Includes annual system losses



Plot 3D-2 KCP&L Energy Forecast (GWH): Net System Input (NSI)
(Low Case, Base Case, High Case)

Year	Low NSI	Base NSI	High NSI	Low NSI	Base NSI	High NSI	Low NSI	Base NSI	High NSI
	Summer Jun-Sep	Summer Jun-Sep	Summer Jun-Sep	Non-Summer Oct-May	Non-Summer Oct-May	Non-Summer Oct-May	Year Jun-Sep	Year Jun-Sep	Year Jun-Sep
2000	5,747.3	5,747.3	5,747.3	8,610.4	8,610.4	8,610.4	14,357.8	14,357.8	14,357.8
2001	5,806.4	5,806.4	5,806.4	8,798.6	8,798.6	8,798.6	14,605.0	14,605.0	14,605.0
2002	5,707.1	5,707.1	5,707.1	8,894.4	8,894.4	8,894.4	14,601.5	14,601.5	14,601.5
2003	5,822.5	5,822.5	5,822.5	9,064.0	9,064.0	9,064.0	14,886.5	14,886.5	14,886.5
2004	5,999.1	5,999.1	5,999.1	9,360.1	9,360.1	9,360.1	15,359.2	15,359.2	15,359.2
2005	6,079.1	6,079.1	6,079.1	9,559.7	9,559.7	9,559.7	15,638.8	15,638.8	15,638.8
2006	6,045.1	6,045.1	6,045.1	9,813.2	9,813.2	9,813.2	15,858.3	15,858.3	15,858.3
2007	6,225.4	6,225.4	6,225.4	9,952.0	9,952.0	9,952.0	16,177.4	16,177.4	16,177.4
2008	6,214.2	6,214.2	6,214.2	10,043.8	10,043.8	10,043.8	16,258.1	16,258.1	16,258.1
2009	6,093.7	6,093.7	6,093.7	9,935.2	9,935.2	9,935.2	16,028.9	16,028.9	16,028.9
2010	6,045.7	6,045.7	6,045.7	9,949.7	9,949.7	9,949.7	15,995.4	15,995.4	15,995.4
2011	6,113.8	6,113.8	6,113.8	9,795.0	9,795.0	9,795.0	15,908.8	15,908.8	15,908.8
2012	5,836.4	5,836.4	5,836.4	9,817.8	9,817.8	9,817.8	15,654.2	15,654.2	15,654.2
2013	5,949.8	5,949.8	5,949.8	9,753.1	9,753.1	9,753.1	15,702.9	15,702.9	15,702.9
2014	6,010.3	6,010.3	6,010.3	9,842.9	9,842.9	9,842.9	15,853.2	15,853.2	15,853.2
2015	5,932.4	5,932.4	5,932.4	9,950.0	9,950.0	9,950.0	15,882.4	15,882.4	15,882.4
2016	5,992.9	5,992.9	5,992.9	9,917.8	9,917.8	9,917.8	15,910.7	15,910.7	15,910.7
2017	5,994.3	6,005.3	6,015.2	9,935.4	9,949.3	9,961.4	15,929.7	15,954.7	15,976.7
2018	6,003.6	6,045.8	6,080.1	9,876.2	9,939.6	9,992.5	15,879.9	15,985.5	16,072.6
2019	5,990.3	6,062.7	6,121.3	9,867.9	9,980.0	10,072.5	15,858.2	16,042.7	16,193.7
2020	5,954.1	6,059.0	6,145.6	9,852.0	10,016.9	10,156.0	15,806.1	16,075.8	16,301.7
2021	5,925.3	6,062.7	6,180.2	9,778.3	9,996.2	10,186.8	15,703.6	16,059.0	16,367.0
2022	5,912.4	6,083.3	6,233.5	9,762.2	10,035.5	10,282.4	15,674.6	16,118.7	16,515.9
2023	5,902.4	6,107.3	6,292.6	9,755.4	10,085.9	10,393.3	15,657.7	16,193.2	16,685.9
2024	5,888.0	6,128.1	6,350.6	9,775.1	10,166.2	10,540.1	15,663.1	16,294.3	16,890.7
2025	5,880.6	6,157.5	6,420.2	9,735.9	10,188.4	10,632.1	15,616.6	16,345.9	17,052.2
2026	5,878.0	6,192.8	6,500.3	9,741.1	10,258.6	10,782.2	15,619.1	16,451.5	17,282.5
2027	5,876.7	6,230.3	6,587.6	9,747.6	10,331.9	10,945.2	15,624.3	16,562.2	17,532.8
2028	5,878.3	6,271.7	6,684.2	9,794.1	10,449.7	11,165.6	15,672.3	16,721.4	17,849.8
2029	5,879.2	6,313.7	6,786.8	9,771.4	10,496.1	11,320.0	15,650.7	16,809.8	18,106.8
2030	5,874.9	6,351.4	6,890.5	9,770.9	10,569.1	11,514.0	15,645.9	16,920.5	18,404.4
2031	5,871.7	6,391.5	6,999.2	9,771.9	10,646.0	11,716.7	15,643.5	17,037.5	18,715.9
2032	5,868.8	6,433.1	7,111.4	9,808.4	10,764.2	11,968.8	15,677.2	17,197.3	19,080.1
2033	5,867.2	6,477.4	7,227.9	9,777.8	10,811.2	12,144.0	15,644.9	17,288.6	19,371.8
2034	5,867.9	6,525.4	7,349.8	9,785.5	10,903.1	12,371.4	15,653.4	17,428.5	19,721.2
2035	5,870.7	6,577.2	7,476.7	9,797.3	11,001.9	12,608.1	15,668.0	17,579.1	20,084.8
2036	5,873.1	6,629.5	7,603.9	9,844.3	11,143.0	12,892.9	15,717.4	17,772.5	20,496.9
2037	5,875.8	6,683.6	7,732.3	9,821.9	11,208.3	13,087.4	15,697.7	17,891.9	20,819.7
'12-'17	0.5%	0.6%	0.6%	0.2%	0.3%	0.3%	0.3%	0.4%	0.4%
'15-'20	0.1%	0.4%	0.7%	-0.2%	0.1%	0.4%	-0.1%	0.2%	0.5%
'20-'25	-0.2%	0.3%	0.9%	-0.2%	0.3%	0.9%	-0.2%	0.3%	0.9%
'25-'30	0.0%	0.6%	1.4%	0.1%	0.7%	1.6%	0.0%	0.7%	1.5%
'30-'35	0.0%	0.7%	1.6%	0.1%	0.8%	1.8%	0.0%	0.8%	1.8%
'17-'37	-0.1%	0.5%	1.3%	-0.1%	0.6%	1.4%	-0.1%	0.6%	1.3%

Note: Energy MWH (NSI) Includes annual system losses



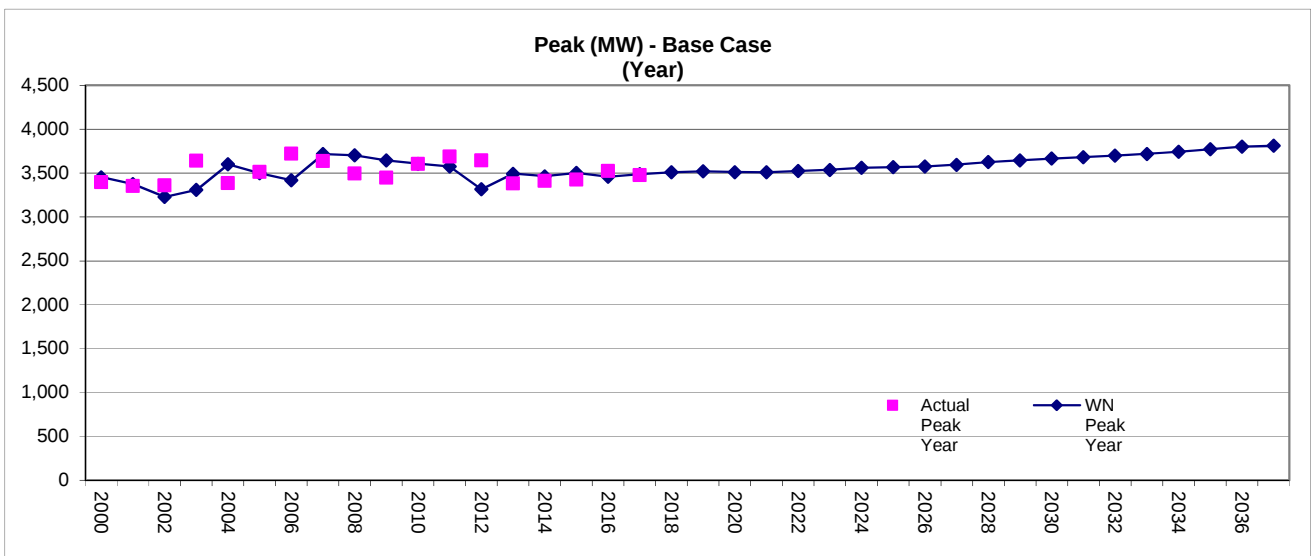
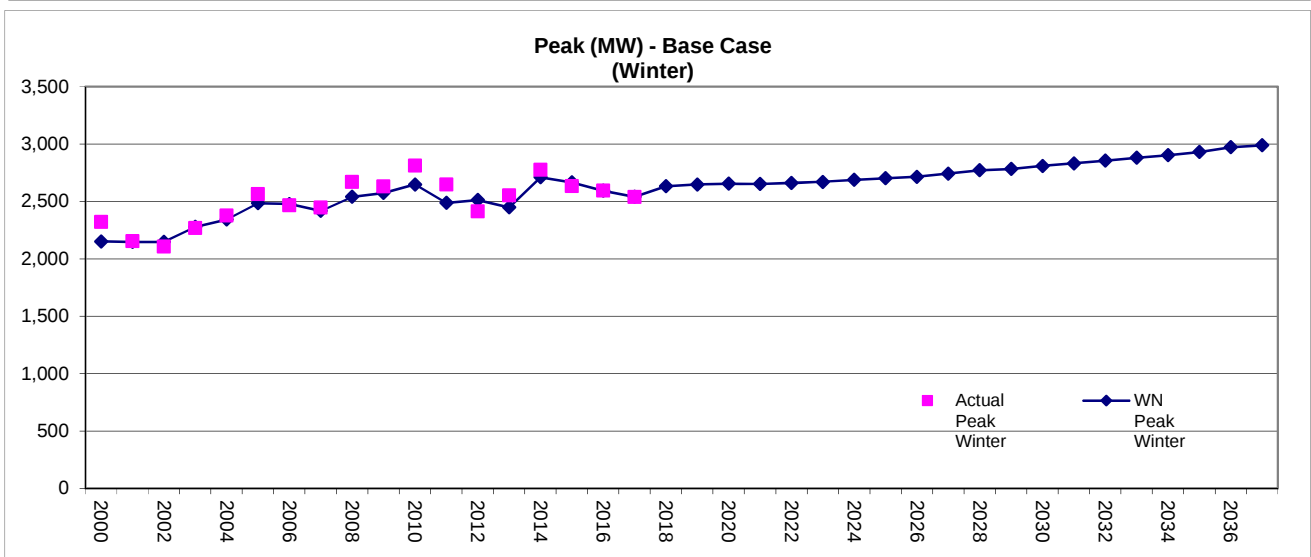
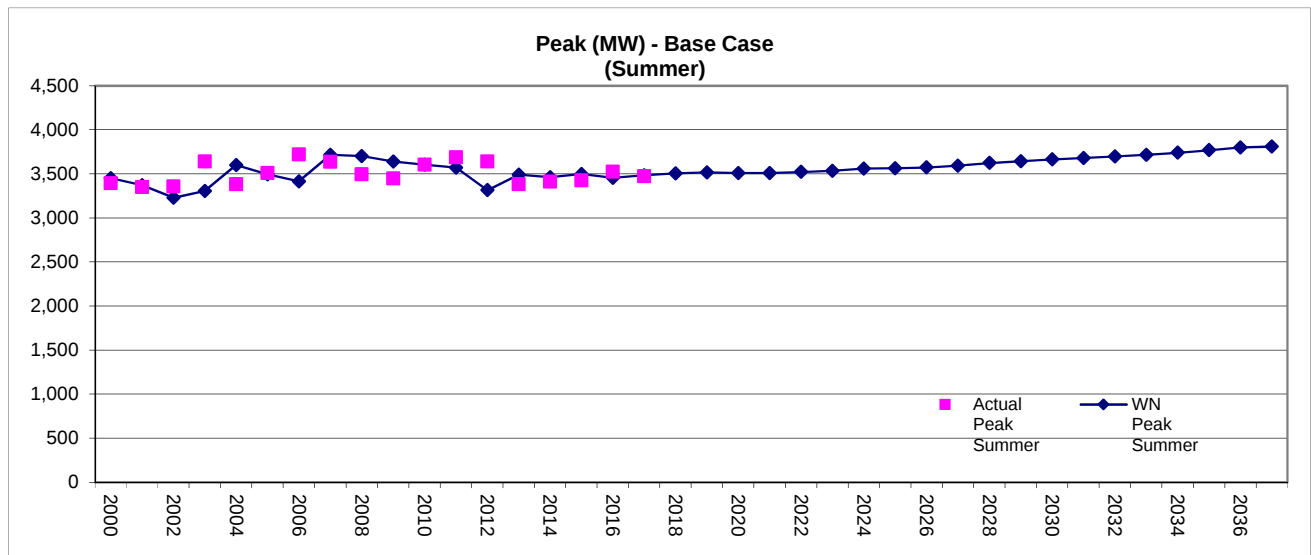
Plot 3D-3 KCP&L Peak Forecast (MW) - Base Case
(Actual vs. Weather Normalized)

Year	Actual Peak Summer	WN Peak Summer	Actual Peak Winter	WN Peak Winter	Actual Peak Year	WN Peak Year
2000	3,394	3,452	2,320	2,152	3,394	3,452
2001	3,352	3,372	2,153	2,147	3,352	3,372
2002	3,358	3,229	2,105	2,147	3,358	3,229
2003	3,640	3,307	2,268	2,278	3,640	3,307
2004	3,384	3,600	2,376	2,343	3,384	3,600
2005	3,512	3,496	2,563	2,485	3,512	3,496
2006	3,721	3,416	2,467	2,478	3,721	3,416
2007	3,638	3,718	2,446	2,418	3,638	3,718
2008	3,495	3,703	2,670	2,540	3,495	3,703
2009	3,448	3,642	2,631	2,574	3,448	3,642
2010	3,603	3,605	2,811	2,648	3,603	3,605
2011	3,689	3,573	2,646	2,487	3,689	3,573
2012	3,642	3,316	2,414	2,513	3,642	3,316
2013	3,382	3,492	2,552	2,448	3,382	3,492
2014	3,412	3,463	2,776	2,711	3,412	3,463
2015	3,425	3,501	2,634	2,666	3,425	3,501
2016	3,524	3,456	2,594	2,594	3,524	3,456
2017	3,475	3,485	2,539	2,540	3,475	3,485
2018		3,507		2,633		3,507
2019		3,519		2,648		3,519
2020		3,510		2,654		3,510
2021		3,509		2,652		3,509
2022		3,523		2,662		3,523
2023		3,536		2,670		3,536
2024		3,560		2,688		3,560
2025		3,566		2,702		3,566
2026		3,574		2,715		3,574
2027		3,594		2,742		3,594
2028		3,625		2,772		3,625
2029		3,644		2,783		3,644
2030		3,665		2,810		3,665
2031		3,680		2,832		3,680
2032		3,699		2,855		3,699
2033		3,718		2,881		3,718
2034		3,741		2,903		3,741
2035		3,770		2,931		3,770
2036		3,801		2,973		3,801
2037		3,810		2,989		3,810
'12-'17	-0.9%	1.0%	1.0%	0.2%	-0.9%	1.0%
'15-'20		0.1%		-0.1%		0.1%
'20-'25		0.3%		0.4%		0.3%
'25-'30		0.5%		0.8%		0.5%
'30-'35		0.6%		0.8%		0.6%
'17-'37		0.4%		0.8%		0.4%

*2009 actual peak was in June and weather normalized peak occurred in July

*2012 actual peak was in July and weather normalized peak occurred in August

*2017 weather normalized summer peak is based on forecast not a normal of actuals
 actuals where not available at time of weather normalization.



Plot 3D-4 KCP&L Peak Forecast (MW)
(Low Case, Base Case, High Cast)

Year	Low Peak Summer	Base Peak Summer	High Peak Summer	Low Peak Winter	Base Peak Winter	High Peak Winter	Low NSI Year	Base NSI Year	High NSI Year
2000	3,452	3,452	3,452	2,152	2,152	2,152	3,452	3,452	3,452
2001	3,372	3,372	3,372	2,147	2,147	2,147	3,372	3,372	3,372
2002	3,229	3,229	3,229	2,147	2,147	2,147	3,229	3,229	3,229
2003	3,307	3,307	3,307	2,278	2,278	2,278	3,307	3,307	3,307
2004	3,600	3,600	3,600	2,343	2,343	2,343	3,600	3,600	3,600
2005	3,496	3,496	3,496	2,485	2,485	2,485	3,496	3,496	3,496
2006	3,416	3,416	3,416	2,478	2,478	2,478	3,416	3,416	3,416
2007	3,718	3,718	3,718	2,418	2,418	2,418	3,718	3,718	3,718
2008	3,703	3,703	3,703	2,540	2,540	2,540	3,703	3,703	3,703
2009	3,642	3,642	3,642	2,574	2,574	2,574	3,642	3,642	3,642
2010	3,605	3,605	3,605	2,648	2,648	2,648	3,605	3,605	3,605
2011	3,573	3,573	3,573	2,487	2,487	2,487	3,573	3,573	3,573
2012	3,316	3,316	3,316	2,513	2,513	2,513	3,316	3,316	3,316
2013	3,492	3,492	3,492	2,448	2,448	2,448	3,492	3,492	3,492
2014	3,463	3,463	3,463	2,711	2,711	2,711	3,463	3,463	3,463
2015	3,501	3,501	3,501	2,666	2,666	2,666	3,501	3,501	3,501
2016	3,456	3,456	3,456	2,594	2,594	2,594	3,456	3,456	3,456
2017	3,479	3,485	3,491	2,540	2,540	2,540	3,479	3,485	3,491
2018	3,485	3,507	3,524	2,616	2,633	2,646	3,485	3,507	3,524
2019	3,483	3,519	3,548	2,616	2,648	2,672	3,483	3,519	3,548
2020	3,459	3,510	3,553	2,607	2,654	2,693	3,459	3,510	3,553
2021	3,442	3,509	3,566	2,588	2,652	2,705	3,442	3,509	3,566
2022	3,440	3,523	3,595	2,582	2,662	2,733	3,440	3,523	3,595
2023	3,437	3,536	3,625	2,573	2,670	2,760	3,437	3,536	3,625
2024	3,444	3,560	3,666	2,572	2,688	2,798	3,444	3,560	3,666
2025	3,432	3,566	3,690	2,567	2,702	2,835	3,432	3,566	3,690
2026	3,423	3,574	3,718	2,560	2,715	2,873	3,423	3,574	3,718
2027	3,425	3,594	3,761	2,566	2,742	2,931	3,425	3,594	3,761
2028	3,436	3,625	3,816	2,573	2,772	2,994	3,436	3,625	3,816
2029	3,436	3,644	3,862	2,563	2,783	3,041	3,436	3,644	3,862
2030	3,437	3,665	3,913	2,566	2,810	3,109	3,437	3,665	3,913
2031	3,432	3,680	3,958	2,564	2,832	3,175	3,432	3,680	3,958
2032	3,430	3,699	4,008	2,563	2,855	3,241	3,430	3,699	4,008
2033	3,428	3,718	4,059	2,562	2,881	3,312	3,428	3,718	4,059
2034	3,429	3,741	4,115	2,558	2,903	3,378	3,429	3,741	4,115
2035	3,435	3,770	4,178	2,558	2,931	3,452	3,435	3,770	4,178
2036	3,442	3,801	4,243	2,570	2,973	3,543	3,442	3,801	4,243
2037	3,430	3,810	4,284	2,558	2,989	3,599	3,430	3,810	4,284
'12-'17	1.0%	1.0%	1.0%	0.2%	0.2%	0.2%	1.0%	1.0%	1.0%
'15-'20	-0.2%	0.1%	0.3%	-0.4%	-0.1%	0.2%	-0.2%	0.1%	0.3%
'20-'25	-0.2%	0.3%	0.8%	-0.3%	0.4%	1.0%	-0.2%	0.3%	0.8%
'25-'30	0.0%	0.5%	1.2%	0.0%	0.8%	1.9%	0.0%	0.5%	1.2%
'30-'35	0.0%	0.6%	1.3%	-0.1%	0.8%	2.1%	0.0%	0.6%	1.3%
'17-'37	-0.1%	0.4%	1.0%	0.0%	0.8%	1.8%	-0.1%	0.4%	1.0%

