

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

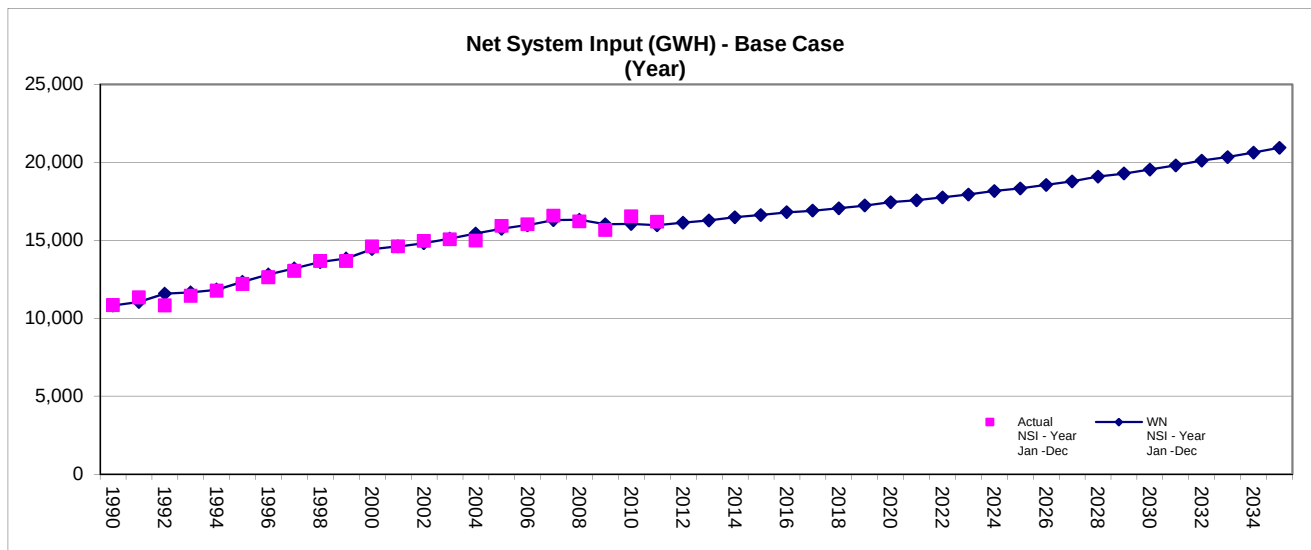
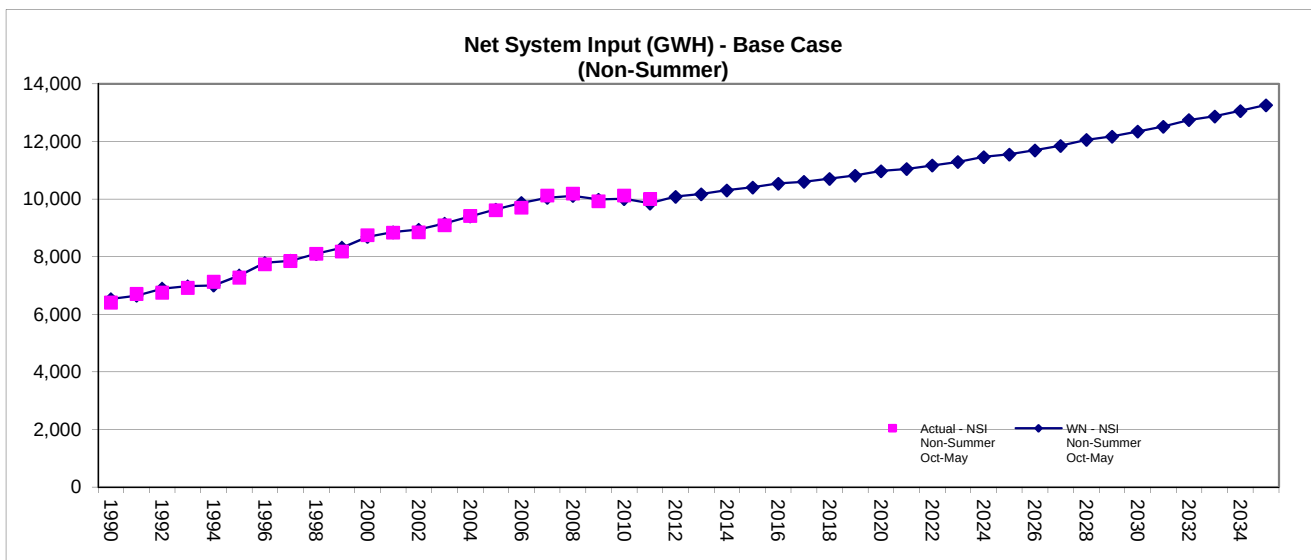
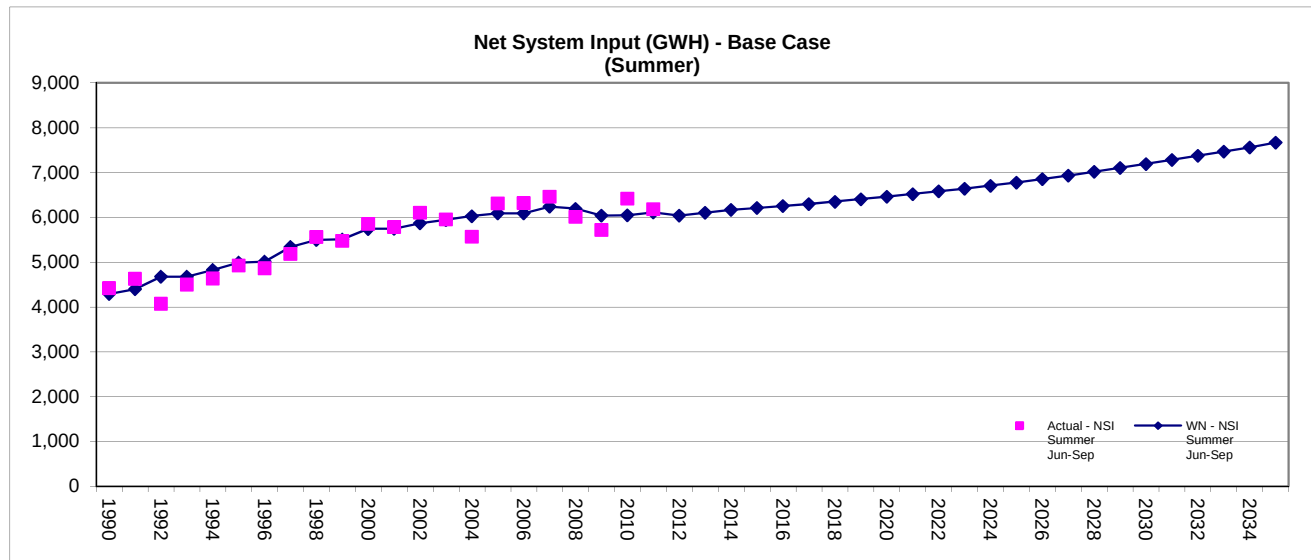
KCPL Low System Datalyzer.xls

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
1990	4,421.7	4,292.0	6,403.9	6,530.2	10,825.6	10,822.3
1991	4,627.3	4,400.8	6,705.6	6,647.4	11,333.0	11,048.2
1992	4,068.6	4,677.9	6,752.5	6,895.5	10,821.1	11,573.4
1993	4,497.7	4,675.8	6,922.5	6,978.7	11,420.2	11,654.5
1994	4,636.7	4,827.1	7,125.8	7,003.9	11,762.5	11,831.0
1995	4,928.2	4,993.0	7,268.7	7,347.3	12,197.0	12,340.3
1996	4,865.9	5,011.1	7,745.5	7,789.1	12,611.4	12,800.2
1997	5,185.2	5,343.0	7,847.8	7,856.9	13,033.0	13,199.9
1998	5,563.1	5,500.6	8,109.4	8,098.8	13,672.5	13,599.4
1999	5,480.1	5,509.6	8,183.4	8,312.9	13,663.5	13,822.5
2000	5,855.6	5,744.3	8,753.5	8,692.4	14,609.1	14,436.8
2001	5,781.6	5,751.1	8,838.2	8,852.2	14,619.7	14,603.3
2002	6,102.5	5,869.2	8,852.8	8,940.9	14,955.4	14,810.2
2003	5,953.9	5,944.2	9,098.6	9,155.8	15,052.5	15,100.0
2004	5,573.2	6,030.7	9,411.9	9,404.0	14,985.2	15,434.7
2005	6,313.5	6,092.7	9,615.2	9,642.7	15,928.7	15,735.4
2006	6,322.2	6,090.4	9,706.9	9,870.5	16,029.1	15,960.8
2007	6,461.6	6,240.5	10,127.5	10,046.4	16,589.2	16,286.9
2008	6,014.4	6,194.4	10,197.8	10,111.9	16,212.2	16,306.3
2009	5,719.9	6,040.0	9,932.9	9,984.6	15,652.8	16,024.6
2010	6,416.5	6,048.0	10,128.4	10,009.3	16,544.9	16,057.2
2011	6,186.5	6,110.2	10,003.4	9,851.5	16,189.9	15,961.7
2012		6,042.6		10,083.3		16,125.9
2013		6,105.7		10,176.5		16,282.2
2014		6,168.2		10,308.0		16,476.1
2015		6,210.8		10,407.1		16,617.8
2016		6,254.4		10,543.6		16,798.0
2017		6,299.5		10,599.3		16,898.8
2018		6,352.1		10,706.4		17,058.4
2019		6,408.5		10,820.7		17,229.2
2020		6,464.0		10,975.7		17,439.7
2021		6,522.4		11,048.7		17,571.1
2022		6,581.8		11,166.7		17,748.5
2023		6,642.6		11,287.9		17,930.5
2024		6,708.3		11,461.7		18,170.0
2025		6,779.4		11,552.5		18,331.9
2026		6,852.6		11,696.4		18,549.0
2027		6,935.0		11,850.3		18,785.4
2028		7,018.6		12,058.8		19,077.5
2029		7,105.1		12,175.1		19,280.1
2030		7,194.3		12,345.9		19,540.3
2031		7,282.2		12,515.1		19,797.3
2032		7,373.6		12,743.3		20,116.9
2033		7,467.5		12,873.2		20,340.7
2034		7,563.9		13,062.5		20,626.3
2035		7,666.0		13,259.0		20,924.9
90-'05	2.4%	2.4%	2.7%	2.6%	2.6%	2.5%
05-'10	0.3%	-0.1%	1.0%	0.7%	0.8%	0.4%
10-'15		0.5%		0.8%		0.7%
15-'20		0.8%		1.1%		1.0%
20-'25		1.0%		1.0%		1.0%
25-'30		1.2%		1.3%		1.3%
10-'35		1.0%		1.1%		1.1%

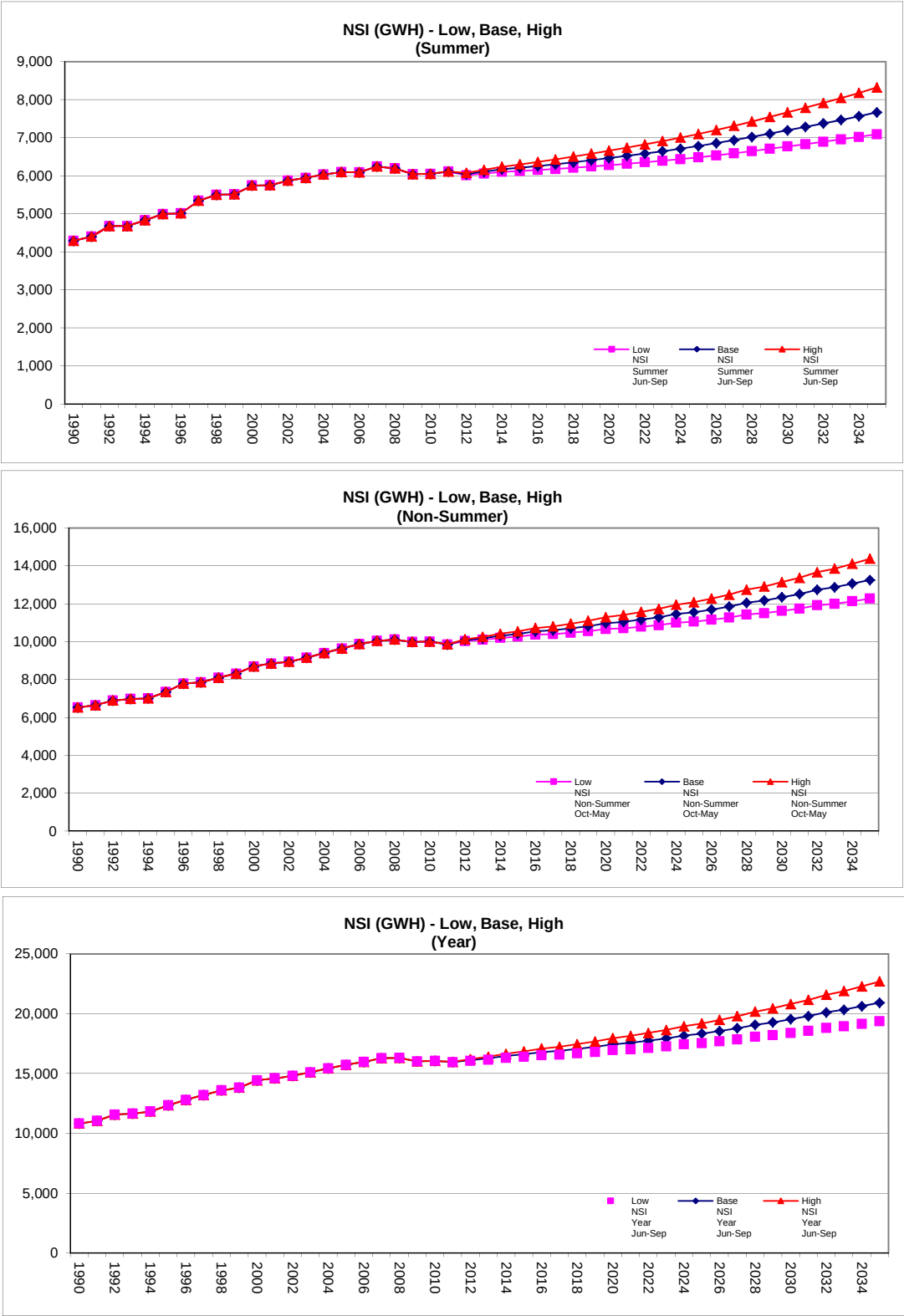
Note: Energy MWH (NSI) Includes annual system losses



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
1990	4,292.0	4,292.0	4,292.0	6,530.2	6,530.2	6,530.2	10,822.3	10,822.3	10,822.3
1991	4,400.8	4,400.8	4,400.8	6,647.4	6,647.4	6,647.4	11,048.2	11,048.2	11,048.2
1992	4,677.9	4,677.9	4,677.9	6,895.5	6,895.5	6,895.5	11,573.4	11,573.4	11,573.4
1993	4,675.8	4,675.8	4,675.8	6,978.7	6,978.7	6,978.7	11,654.5	11,654.5	11,654.5
1994	4,827.1	4,827.1	4,827.1	7,003.9	7,003.9	7,003.9	11,831.0	11,831.0	11,831.0
1995	4,993.0	4,993.0	4,993.0	7,347.3	7,347.3	7,347.3	12,340.3	12,340.3	12,340.3
1996	5,011.1	5,011.1	5,011.1	7,789.1	7,789.1	7,789.1	12,800.2	12,800.2	12,800.2
1997	5,343.0	5,343.0	5,343.0	7,856.9	7,856.9	7,856.9	13,199.9	13,199.9	13,199.9
1998	5,500.6	5,500.6	5,500.6	8,098.8	8,098.8	8,098.8	13,599.4	13,599.4	13,599.4
1999	5,509.6	5,509.6	5,509.6	8,312.9	8,312.9	8,312.9	13,822.5	13,822.5	13,822.5
2000	5,744.3	5,744.3	5,744.3	8,692.4	8,692.4	8,692.4	14,436.8	14,436.8	14,436.8
2001	5,751.1	5,751.1	5,751.1	8,852.2	8,852.2	8,852.2	14,603.3	14,603.3	14,603.3
2002	5,869.2	5,869.2	5,869.2	8,940.9	8,940.9	8,940.9	14,810.2	14,810.2	14,810.2
2003	5,944.2	5,944.2	5,944.2	9,155.8	9,155.8	9,155.8	15,100.0	15,100.0	15,100.0
2004	6,030.7	6,030.7	6,030.7	9,404.0	9,404.0	9,404.0	15,434.7	15,434.7	15,434.7
2005	6,092.7	6,092.7	6,092.7	9,642.7	9,642.7	9,642.7	15,735.4	15,735.4	15,735.4
2006	6,090.4	6,090.4	6,090.4	9,870.5	9,870.5	9,870.5	15,960.8	15,960.8	15,960.8
2007	6,240.5	6,240.5	6,240.5	10,046.4	10,046.4	10,046.4	16,286.9	16,286.9	16,286.9
2008	6,194.4	6,194.4	6,194.4	10,111.9	10,111.9	10,111.9	16,306.3	16,306.3	16,306.3
2009	6,040.0	6,040.0	6,040.0	9,984.6	9,984.6	9,984.6	16,024.6	16,024.6	16,024.6
2010	6,048.0	6,048.0	6,048.0	10,009.3	10,009.3	10,009.3	16,057.2	16,057.2	16,057.2
2011	6,108.2	6,110.2	6,112.2	9,842.4	9,851.5	9,860.7	15,950.6	15,961.7	15,972.9
2012	6,012.6	6,042.6	6,073.5	10,037.7	10,083.3	10,129.2	16,050.3	16,125.9	16,202.8
2013	6,057.3	6,105.7	6,154.9	10,100.6	10,176.5	10,252.7	16,158.0	16,282.2	16,407.6
2014	6,101.1	6,168.2	6,236.5	10,201.2	10,308.0	10,415.6	16,302.3	16,476.1	16,652.1
2015	6,124.9	6,210.8	6,298.5	10,269.1	10,407.1	10,547.0	16,394.0	16,617.8	16,845.5
2016	6,149.5	6,254.4	6,362.1	10,373.2	10,543.6	10,717.5	16,522.7	16,798.0	17,079.6
2017	6,175.2	6,299.5	6,427.7	10,397.2	10,599.3	10,806.7	16,572.4	16,898.8	17,234.4
2018	6,207.8	6,352.1	6,501.6	10,470.9	10,706.4	10,949.4	16,678.7	17,058.4	17,451.0
2019	6,243.8	6,408.5	6,580.0	10,550.9	10,820.7	11,100.8	16,794.7	17,229.2	17,680.8
2020	6,278.6	6,464.0	6,658.0	10,669.5	10,975.7	11,295.4	16,948.1	17,439.7	17,953.4
2021	6,315.7	6,522.4	6,739.8	10,707.9	11,048.7	11,406.6	17,023.6	17,571.1	18,146.3
2022	6,353.5	6,581.8	6,823.3	10,789.1	11,166.7	11,565.4	17,142.6	17,748.5	18,388.7
2023	6,392.2	6,642.6	6,908.7	10,872.5	11,287.9	11,729.0	17,264.7	17,930.5	18,637.7
2024	6,435.2	6,708.3	7,000.1	11,005.4	11,461.7	11,949.0	17,440.6	18,170.0	18,949.1
2025	6,482.8	6,779.4	7,098.0	11,058.0	11,552.5	12,083.6	17,540.8	18,331.9	19,181.6
2026	6,531.9	6,852.6	7,198.9	11,160.2	11,696.4	12,275.5	17,692.1	18,549.0	19,474.4
2027	6,589.1	6,935.0	7,310.7	11,270.7	11,850.3	12,479.9	17,859.8	18,785.4	19,790.6
2028	6,646.7	7,018.6	7,424.6	11,431.4	12,058.8	12,744.1	18,078.2	19,077.5	20,168.7
2029	6,706.3	7,105.1	7,542.7	11,503.9	12,175.1	12,912.3	18,210.3	19,280.1	20,455.0
2030	6,768.0	7,194.3	7,664.9	11,626.6	12,345.9	13,140.6	18,394.6	19,540.3	20,805.5
2031	6,827.8	7,282.2	7,786.4	11,746.8	12,515.1	13,368.9	18,574.6	19,797.3	21,155.2
2032	6,890.4	7,373.6	7,912.8	11,920.4	12,743.3	13,663.0	18,810.8	20,116.9	21,575.8
2033	6,954.4	7,467.5	8,043.3	12,001.2	12,873.2	13,853.4	18,955.6	20,340.7	21,896.8
2034	7,019.9	7,563.9	8,177.8	12,135.5	13,062.5	14,110.6	19,155.5	20,626.3	22,288.4
2035	7,089.8	7,666.0	8,320.1	12,274.7	13,259.0	14,378.4	19,364.5	20,924.9	22,698.6
90-'05	2.4%	2.4%	2.4%	2.6%	2.6%	2.6%	2.5%	2.5%	2.5%
05-'10	-0.1%	-0.1%	-0.1%	0.7%	0.7%	0.7%	0.4%	0.4%	0.4%
10-'15	0.3%	0.5%	0.8%	0.5%	0.8%	1.1%	0.4%	0.7%	1.0%
15-'20	0.5%	0.8%	1.1%	0.8%	1.1%	1.4%	0.7%	1.0%	1.3%
20-'25	0.6%	1.0%	1.3%	0.7%	1.0%	1.4%	0.7%	1.0%	1.3%
25-'30	0.9%	1.2%	1.5%	1.0%	1.3%	1.7%	1.0%	1.3%	1.6%
10-'35	0.6%	1.0%	1.3%	0.8%	1.1%	1.5%	0.8%	1.1%	1.4%

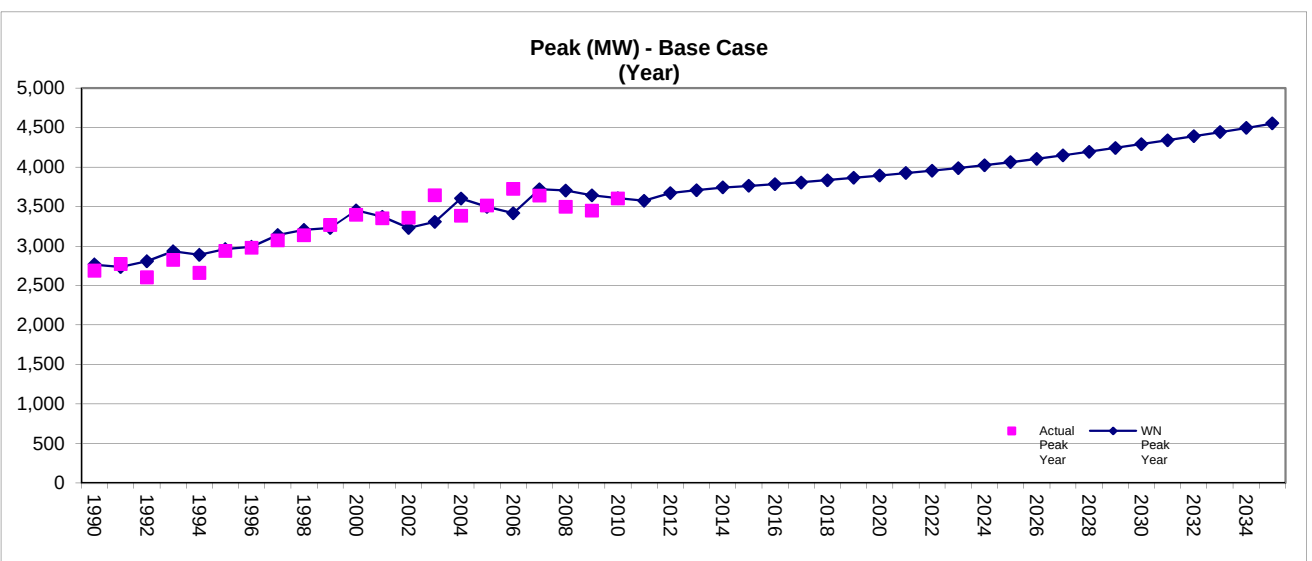
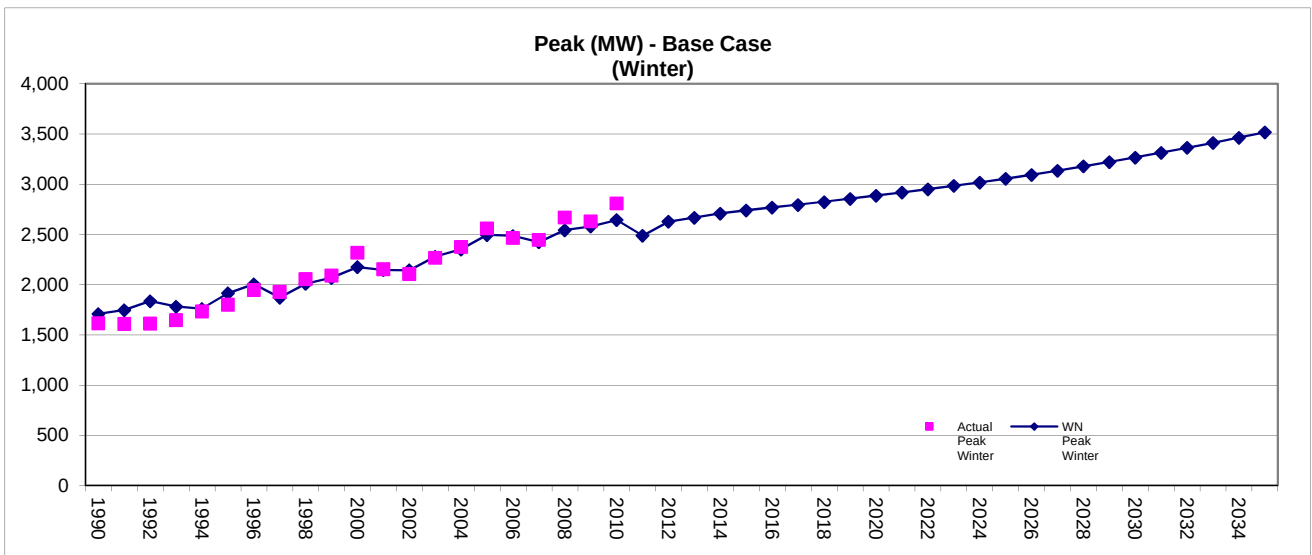
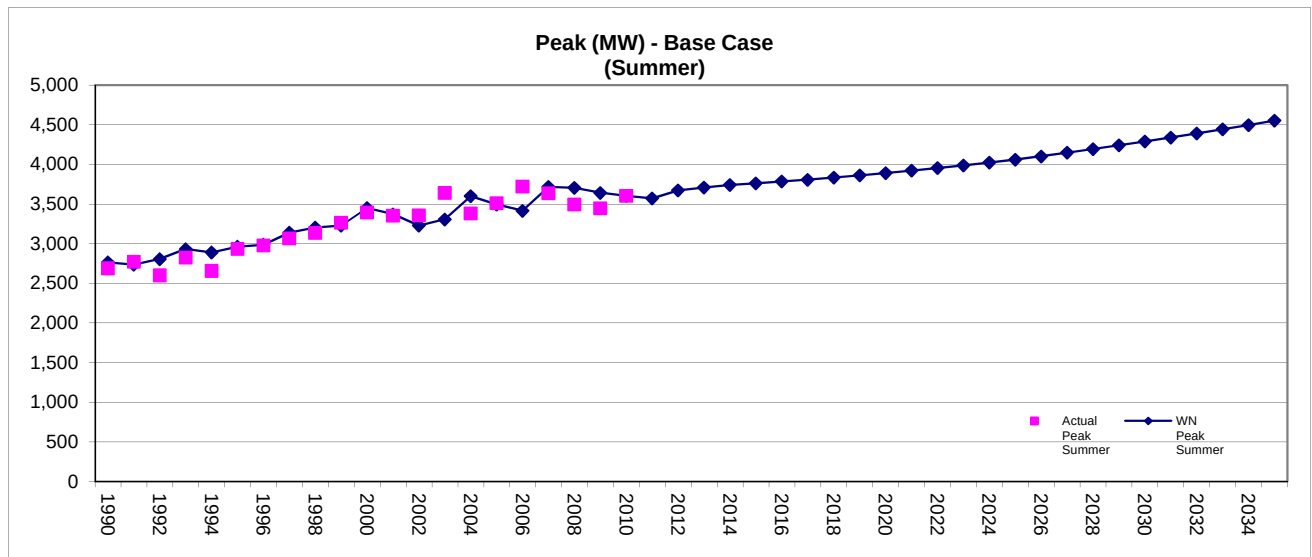
Note: Energy MWH (NSI) Includes annual system losses



Plot K-3D 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
1990	2,687	2,765	1,615	1,708	2,687	2,765
1991	2,772	2,736	1,609	1,748	2,772	2,736
1992	2,600	2,807	1,611	1,836	2,600	2,807
1993	2,825	2,932	1,648	1,782	2,825	2,932
1994	2,658	2,889	1,734	1,759	2,658	2,889
1995	2,935	2,962	1,799	1,914	2,935	2,962
1996	2,977	2,988	1,947	2,005	2,977	2,988
1997	3,069	3,139	1,927	1,872	3,069	3,139
1998	3,136	3,204	2,054	2,009	3,136	3,204
1999	3,264	3,230	2,090	2,069	3,264	3,230
2000	3,394	3,452	2,320	2,176	3,394	3,452
2001	3,352	3,372	2,153	2,147	3,352	3,372
2002	3,358	3,229	2,105	2,143	3,358	3,229
2003	3,640	3,307	2,268	2,279	3,640	3,307
2004	3,384	3,600	2,376	2,352	3,384	3,600
2005	3,512	3,496	2,563	2,496	3,512	3,496
2006	3,721	3,416	2,467	2,486	3,721	3,416
2007	3,638	3,718	2,446	2,424	3,638	3,718
2008	3,495	3,703	2,670	2,543	3,495	3,703
2009	3,448	3,642	2,631	2,580	3,448	3,642
2010	3,603	3,605	2,811	2,644	3,603	3,605
2011		3,573		2,488		3,573
2012		3,672		2,628		3,672
2013		3,707		2,667		3,707
2014		3,741		2,708		3,741
2015		3,763		2,742		3,763
2016		3,784		2,769		3,784
2017		3,806		2,795		3,806
2018		3,833		2,824		3,833
2019		3,863		2,856		3,863
2020		3,892		2,888		3,892
2021		3,924		2,918		3,924
2022		3,955		2,951		3,955
2023		3,987		2,984		3,987
2024		4,024		3,019		4,024
2025		4,061		3,055		4,061
2026		4,102		3,095		4,102
2027		4,148		3,134		4,148
2028		4,193		3,179		4,193
2029		4,242		3,221		4,242
2030		4,291		3,267		4,291
2031		4,339		3,314		4,339
2032		4,391		3,364		4,391
2033		4,442		3,412		4,442
2034		4,495		3,464		4,495
2035		4,552		3,517		4,552
90-'05	1.8%	1.6%	3.1%	2.6%	1.8%	1.6%
05-'10	0.5%	0.6%	1.9%	1.2%	0.5%	0.6%
10-'15		0.9%		0.7%		0.9%
15-'20		0.7%		1.0%		0.7%
20-'25		0.9%		1.1%		0.9%
25-'30		1.1%		1.4%		1.1%
10-'35		0.9%		1.1%		0.9%

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



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
1990	2,765	2,765	2,765	1,708	1,708	1,708	2,765	2,765	2,765
1991	2,736	2,736	2,736	1,748	1,748	1,748	2,736	2,736	2,736
1992	2,807	2,807	2,807	1,836	1,836	1,836	2,807	2,807	2,807
1993	2,932	2,932	2,932	1,782	1,782	1,782	2,932	2,932	2,932
1994	2,889	2,889	2,889	1,759	1,759	1,759	2,889	2,889	2,889
1995	2,962	2,962	2,962	1,914	1,914	1,914	2,962	2,962	2,962
1996	2,988	2,988	2,988	2,005	2,005	2,005	2,988	2,988	2,988
1997	3,139	3,139	3,139	1,872	1,872	1,872	3,139	3,139	3,139
1998	3,204	3,204	3,204	2,009	2,009	2,009	3,204	3,204	3,204
1999	3,230	3,230	3,230	2,069	2,069	2,069	3,230	3,230	3,230
2000	3,452	3,452	3,452	2,176	2,176	2,176	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	2,143	2,143	2,143	3,229	3,229	3,229
2003	3,307	3,307	3,307	2,279	2,279	2,279	3,307	3,307	3,307
2004	3,600	3,600	3,600	2,352	2,352	2,352	3,600	3,600	3,600
2005	3,496	3,496	3,496	2,496	2,496	2,496	3,496	3,496	3,496
2006	3,416	3,416	3,416	2,486	2,486	2,486	3,416	3,416	3,416
2007	3,718	3,718	3,718	2,424	2,424	2,424	3,718	3,718	3,718
2008	3,703	3,703	3,703	2,543	2,543	2,543	3,703	3,703	3,703
2009	3,642	3,642	3,642	2,580	2,580	2,580	3,642	3,642	3,642
2010	3,605	3,605	3,605	2,644	2,644	2,644	3,605	3,605	3,605
2011	3,573	3,573	3,573	2,488	2,488	2,488	3,573	3,573	3,573
2012	3,656	3,672	3,693	2,617	2,628	2,643	3,656	3,672	3,693
2013	3,680	3,707	3,740	2,648	2,667	2,691	3,680	3,707	3,740
2014	3,703	3,741	3,786	2,681	2,708	2,740	3,703	3,741	3,786
2015	3,713	3,763	3,820	2,706	2,742	2,782	3,713	3,763	3,820
2016	3,722	3,784	3,853	2,726	2,769	2,819	3,722	3,784	3,853
2017	3,733	3,806	3,887	2,743	2,795	2,854	3,733	3,806	3,887
2018	3,748	3,833	3,927	2,763	2,824	2,891	3,748	3,833	3,927
2019	3,766	3,863	3,970	2,786	2,856	2,933	3,766	3,863	3,970
2020	3,782	3,892	4,013	2,809	2,888	2,975	3,782	3,892	4,013
2021	3,801	3,924	4,058	2,830	2,918	3,016	3,801	3,924	4,058
2022	3,819	3,955	4,104	2,854	2,951	3,060	3,819	3,955	4,104
2023	3,838	3,987	4,151	2,876	2,984	3,103	3,838	3,987	4,151
2024	3,861	4,024	4,203	2,901	3,019	3,150	3,861	4,024	4,203
2025	3,886	4,061	4,256	2,927	3,055	3,198	3,886	4,061	4,256
2026	3,912	4,102	4,313	2,956	3,095	3,250	3,912	4,102	4,313
2027	3,943	4,148	4,376	2,984	3,134	3,302	3,943	4,148	4,376
2028	3,973	4,193	4,439	3,017	3,179	3,361	3,973	4,193	4,439
2029	4,006	4,242	4,506	3,047	3,221	3,417	4,006	4,242	4,506
2030	4,040	4,291	4,575	3,081	3,267	3,478	4,040	4,291	4,575
2031	4,072	4,339	4,642	3,115	3,314	3,540	4,072	4,339	4,642
2032	4,108	4,391	4,714	3,152	3,364	3,606	4,108	4,391	4,714
2033	4,142	4,442	4,787	3,186	3,412	3,670	4,142	4,442	4,787
2034	4,177	4,495	4,861	3,224	3,464	3,740	4,177	4,495	4,861
2035	4,215	4,552	4,941	3,262	3,517	3,815	4,215	4,552	4,941
90-'05	1.6%	1.6%	1.6%	2.6%	2.6%	2.6%	1.6%	1.6%	1.6%
05-'10	0.6%	0.6%	0.6%	1.2%	1.2%	1.2%	0.6%	0.6%	0.6%
10-'15	0.6%	0.9%	1.2%	0.5%	0.7%	1.0%	0.6%	0.9%	1.2%
15-'20	0.4%	0.7%	1.0%	0.7%	1.0%	1.3%	0.4%	0.7%	1.0%
20-'25	0.5%	0.9%	1.2%	0.8%	1.1%	1.5%	0.5%	0.9%	1.2%
25-'30	0.8%	1.1%	1.5%	1.0%	1.4%	1.7%	0.8%	1.1%	1.5%
10-'35	0.6%	0.9%	1.3%	0.8%	1.1%	1.5%	0.6%	0.9%	1.3%

